Blues Point Archaeological Monitoring Report

Prepared by AMBS Ecology & Heritage for Systems Connect

Final Draft

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1 Introduction

AMBS Ecology & Heritage (AMBS) has been commissioned by Systems Connect on behalf of Sydney Metro, to undertake archaeological monitoring for the Blues Point Stage 2 Reinstatement works. The Blues Point stage 2 works involved the removal of existing road surface, pavement and footpaths, minor earthworks and construction of new road surface, pavement, landscaping and lighting along Blues Point Road and Henry Lawson Avenue.

These works are a component of the Sydney Metro City and Southwest project, which is a new 30km-long rail system from Chatswood to Sydenham and includes a new crossing beneath Sydney Harbour, and new railway stations. The Project was approved by the Minster for Planning on 9 January 2017 subject to a number of Conditions set out in Critical State Significant Infrastructure Sydney Metro & Southwest Chatswood to Sydenham Infrastructure Approval (Application no. SSI 15_7400) (Project Planning Approval). Documentation for the project-wide works included a *Non-Aboriginal Impact Assessment* (EIS Technical Paper 4) and *Sydney Metro Historical Archaeological Assessment and Research Design Report* (AARD), both prepared by Artefact Heritage. Minister's Condition of Approval (CoA) E17 refers to the pre-excavation reporting requirements prior to construction:

> *The Archaeological Assessment Research Design Report (AARD) in the PIR must be implemented. Final Archaeological Method Statements must be prepared in consultation with the Heritage Council of NSW (or its delegate) before commencement of archaeological excavation works. The final methodology must:*
> *(a) provide for the detailed analysis of any heritage items discovered during the investigations;*
> *(b) include detailed site-specific archaeological management and artefact management strategies;*
> *(c) include cored soil samples for soil and pollen for the Pitt Street site within the Tank Stream Valley; and*
> *(d) provide for a sieving strategy.*

Prior to the stage 2 works at Blues Point, Casey & Lowe Archaeology & Heritage (Casey & Lowe) prepared an Archaeological Method Statement (AMS) for Blues Point stage 1 works for the station box excavations which, with the results of the Casey & Lowe excavations supersede the AARD prepared by Artefact Heritage (Artefact; 2016). In 2022 AMBS provided an Archaeological Assessment and Research Design to Systems Connect specifically addressing the reinstatement works for Blues Point Road in accordance with CoA E17, the AMS provided an updated strategy for the management of archaeological resources within the stage 2 area of works. The AMS recommended a program of archaeological monitoring in line with the areas of archaeological potential as outlined in the 2016 AARD, the 2018 AMS and the results of the archaeological excavations completed by Casey & Lowe for the stage 1 works.

This report outlines the results of the archaeological monitoring program in accordance with the June 2022 Consistency Report - Blues Point Restoration and the project conditions of approval, specifically E18:

> *Before excavation of archaeological management sites, the Proponent must nominate a suitably qualified Excavation Director who complies with the Heritage Council of NSW's Criteria for Assessment of Excavation Directors (July 2011) to oversee and advise on matters associated with historic archaeology and advise the Department and OEH.*
>
> *Where archaeological excavation is required, the Excavation Director must be present to oversee excavation and advise on archaeological issues. The Excavation Director must be*

given the authority to advise on the duration and extent of oversight required as informed by the provision of the approved AARD and Excavation Methodology.

A final archaeological report must be submitted to the Heritage Council of NSW within two (2) years of the completion of archaeological excavation on the project. The report must include information on the entire historical archaeological program relating to the CSSI.

1.1 Study Area

The stage 2 study area encompasses Blues Point Road and Henry Lawson Avenue. The eastern border of the study area is bounded by Blues Point Reserve, the northern boundary by the cliffs along Henry Lawson Avenue, the western boundary is located above the heritage listed wall, addressing the access road to Blues Point Tower, and the south boundary addresses the southern portion of Blues Point Reserve (Figure 1.1).

Figure 1.1:The study area including the stage 1 (red outline) and stage 2 (blue outline) study areas.

1.2 Methodology and Authorship

This report is consistent with the principles and guidelines of *the Burra Charter: The Australian ICOMOS Charter for the Conservation of Places of Cultural Significance 2013* and current best practice guidelines as identified in the *NSW Heritage Manual* (1996), published by the Heritage Office and Department of Urban Affairs and Planning, and associated supplementary publications, in particular *Assessing Significance for Historical Archaeological Sites and Relics (2009)*.

The purpose of this report is to provide a record of the results of archaeological monitoring undertaken at Blues Point by AMBS to fulfil the requirements of the approved archaeological monitoring methodology for the project.

This report has been prepared by Jane Rooke, AMBS Historic Heritage Consultant with assistance from Matthew Byron AMBS Heritage Consultant under the direction of Lian Ramage, AMBS Senior Historic Heritage Consultant who has provided technical advice and final review of this report.

2 Archaeological Monitoring Methodology

2.1 Scope of Works

The Blues Point stage 2 reinstatement works involved removal of existing road surface, pavement and footpaths, minor earthworks and construction of new pavement, footpaths, landscaping and lighting along Blues Point Road and Henry Lawson Avenue and the installation of interpretative media. Additionally, removal of existing Ausgrid street lighting and low voltage assets along Blues Point Road (on both sides of the Heritage listed wall) and Henry Lawson Avenue was be undertaken. New trenching along Blues Point Road and Henry Lawson Avenue, with existing trenching across the footpath at the corner of Blues Point Road and Henry Lawson Avenue was to be utilised for the installation of new conduits (Figure 29, Figure 30, Figure 31). Systems Connect divided the site into work zones (WZ) (Figure 2.1) to detail the scope of works. Detailed project specific landscape architectural plans are provided in Appendix A.

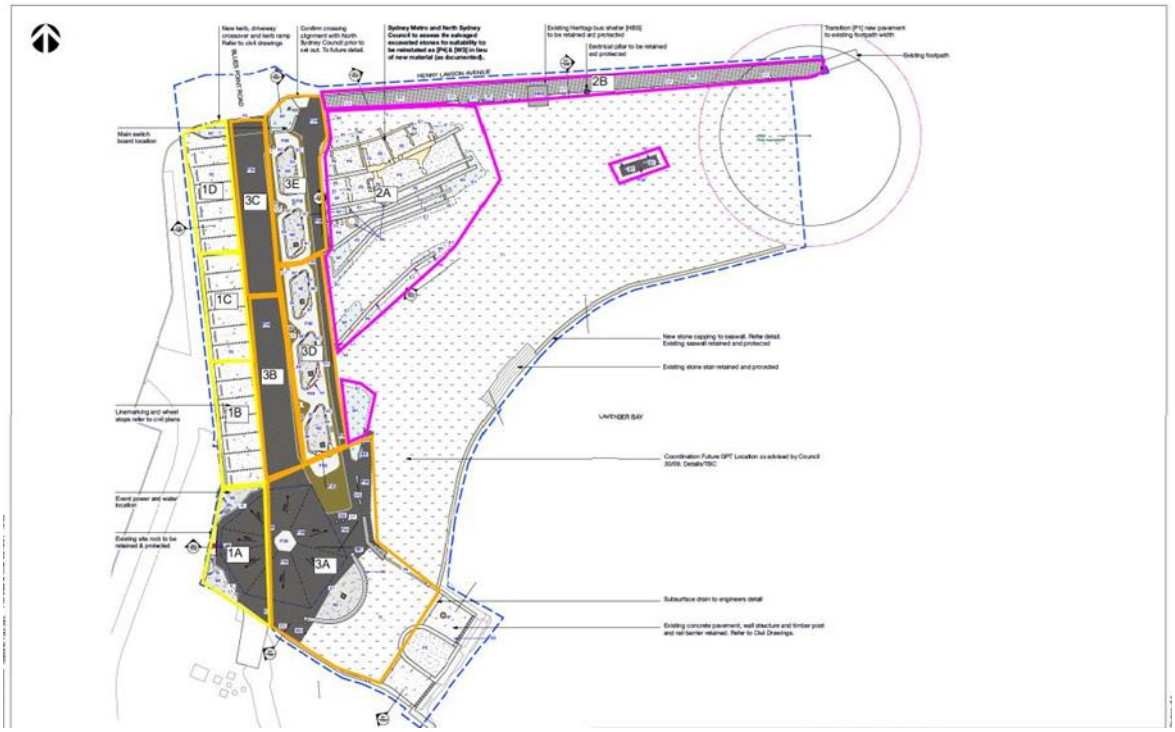

Figure 2.1: Study area showing detailed work zones as allocated by Systems Connect.

2.2 Methodology

The AMS determined that the potential for archaeological resources was moderate/low where the southern portion of the road had moderate potential for historical archaeology and the northern portion moderate potential for Aboriginal archaeology (Figure 2.4). Archaeological resources in areas of historical potential were assessed as having low research potential and low potential for relics. Therefore, a program of monitoring and where required targeted salvage was undertaken. The presence or consultation of Registered Aboriginal Parties (RAPs) was not required during the monitoring. Should intact natural profiles or Aboriginal objects have been revealed then a program of Aboriginal archaeological investigations would have been triggered and an updated Aboriginal Archaeological Method Statement would have been prepared. Aboriginal community consultation in accordance with Heritage NSW, Department of Premier and Cabinet (Heritage NSW) Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010a) would have been undertaken also.

Figure 2.2: Map of Blues Point detailing the historical archaeological potential.

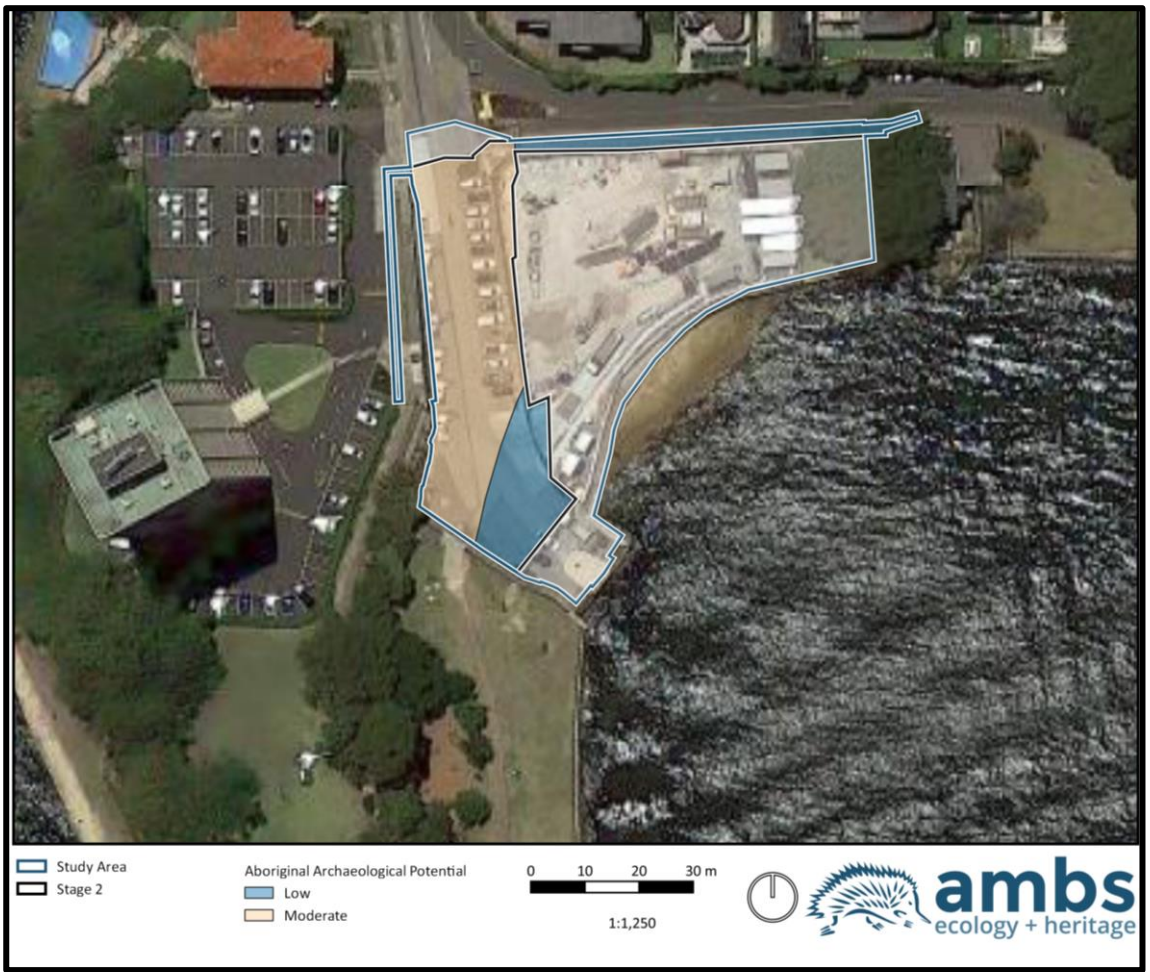

Figure 2.3: Map of Blues Point detailing the Aboriginal archaeological potential.

The archaeological program involved the attendance of an archaeologist on site during the works to oversee the machine excavations of slab and overburden in areas of Aboriginal and historical

archaeological potential. The archaeologists were proficient in both historical and Aboriginal archaeology and able to discern complex stratigraphy and intact natural soil profiles from disturbed contexts. The Excavation Director, Lian Ramage attended site during the works to oversee the archaeological program and provide additional advice and direction as required. Aboriginal Excavation Director, Chris Langeluddecke provided advice where required.

A Heritage induction was provided to the onsite project staff undertaking the reinstatement works and attendance was compulsory. Additional toolbox talks were undertaken throughout the duration of the works where specific areas revealed intact archaeological resources to ensure these were flagged with the onsite team and the archaeologists were provided with adequate resources and time to undertake detailed archaeological excavation and recording.

Where archaeological features were revealed, full archaeological recording was undertaken including survey points for the production of plans. All photographs were taken by AMBS unless otherwise stated. Guy Hazell from Archsurv provided orthophotographs and plans of the relevant structures.

3 Results of Archaeological Monitoring

3.1 Results

Archaeological monitoring of the areas of archaeological potential was carried out over 41 days from July 2022 to November 2022 by AMBS Heritage Consultants, Matthew Byron, Madi Rodwell and Jane Rooke with Lian Ramage attending site periodically during this time. A summary of the results of monitoring for each Work Zone are provided in (Table 3.1), including a description of any features identified. The following sections of this report describe the results in detail.

Table 3.1: Description of features identified in each Work Zone.

Work Zone	Description
1A	A continuation of the sandstone edging from WZ1B with a horizontal wooden plank possibly from a wooden storage unit.
1B	Sandstone blocks aligned north-south along Blues Point Road used as a lower, unseen edge to the road and contributing to the drainage management of the site.
1C	No archaeological features were identified due to depth of excavation necessary.
1D	The north end of the 1887 heritage wall foundations exposed with evidence of modern drainage installation that impacts wall.
2A	No features Identified. This area was extensively excavated by Casey & Lowe in 2018.
2B	No monitoring required due to no archaeological potential.
3A	A sandstone wall associated with the changes to the ferry wharf in the early 20th century with the upper dressed sandstone kerbing incorporated into the footpath.
3B	No archaeological features identified due to depth of excavation necessary.
3C	No monitoring required due to no archaeological potential.
3D	Several drainage management systems were found in this area including a sandstone drain with stormwater pipes (running west-east and north- south) and a modern concrete drain. This section also revealed a section of the 1957 sea wall.
3E	Bedrock exposed and a terracotta service pipe.

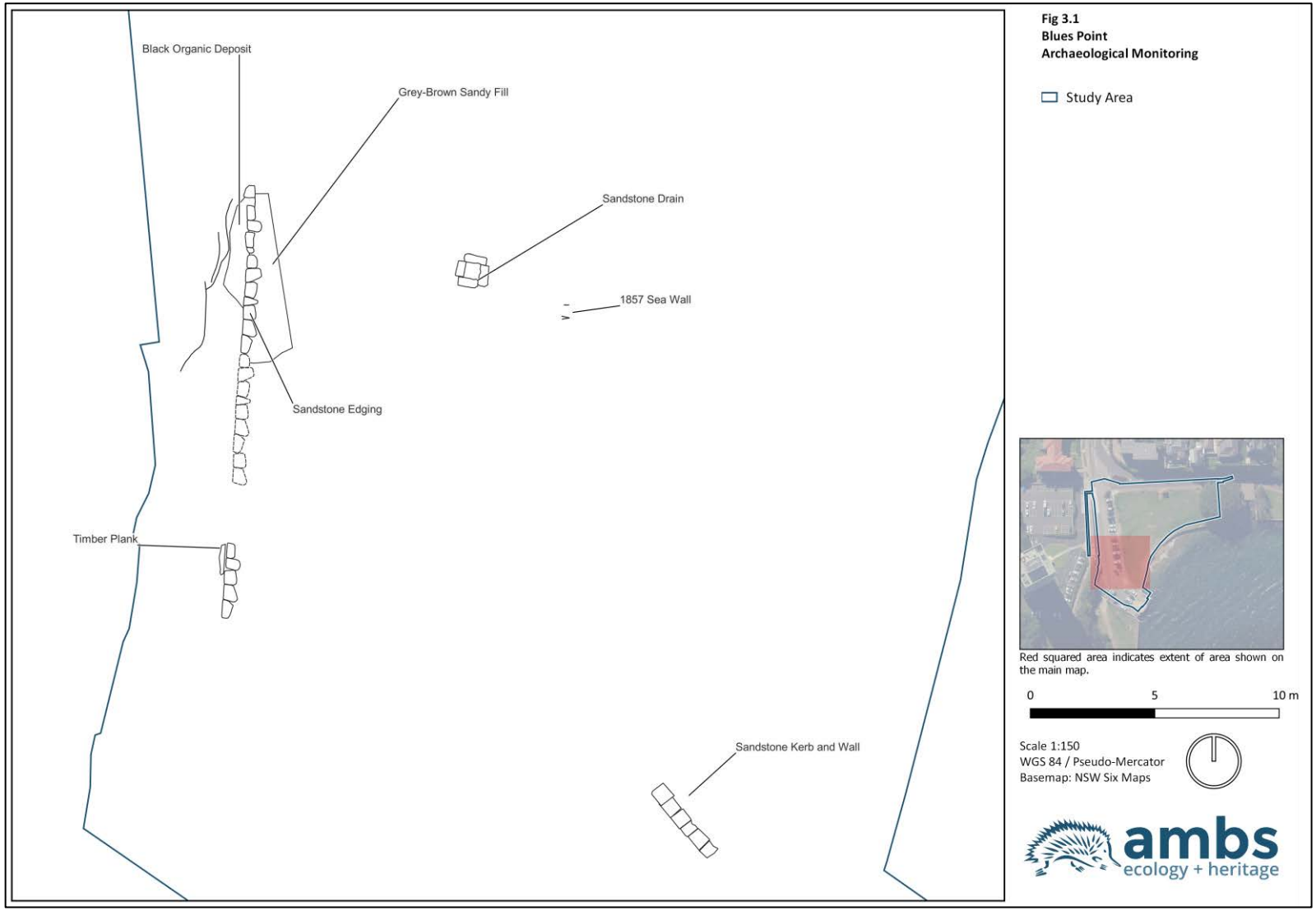

Figure 3.1**:Plan of features uncovered during Blues Point Monitoring. The red square indicates the extent of the study area shown on the main map.**

3.1.1 Archaeological Features

A series of features, including edging, drains and walls were found in Work Zones 1A, 1B, 1C, 1D, 3A, and 3D which were likely locally sourced and utilised for the everyday use of the area (Figure 3.1).

Sandstone Edging in WZ1B

A line of sandstone blocks was first exposed during the preparation for the new road surface on the western side of the site (WZ1B). Once the existing concrete [001] was removed a yellow/brown sandy/silt deposit [002] was evident across much of the area. Under context 002, and at the level required for Systems Connect scope of work, a red/brown/orange sandy loam fill [004] was exposed along with a row of sandstone blocks [005], which extends north-south along the site. A patchy black sandy layer with sandstone inclusions [003] can be seen abutting the row of sandstone blocks and the 1887 wall at the far west of the site. At this level a clear cut to the east of the blocks was evident and filled with a sterile yellow sand [006]. To the west of the blocks the area was heavily disturbed with a large north-south running service pipe encased with concrete [007]. The blocks and the fill [004] can be seen continuing down the site and line up with the sandstone blocks and timber plank found in WZ1A (Figure 3.2). The blocks are positioned with their straight, worked edge on the western side closest to the heritage wall (1250mm), creating a gully/channel for the rainwater reducing the risk of water build up on the road. The top edge of the blocks were levelled and likely prepared for a top layer of either another course of sandstone blocks or a road surface. This was likely removed, during the later stage of the road's modification.
The blocks were irregular in size and shape, with varied lengths between 370mm-670mm. As no further excavations were required in this area the blocks were left insitu. Therefore, it is not known if there was a course under these blocks.

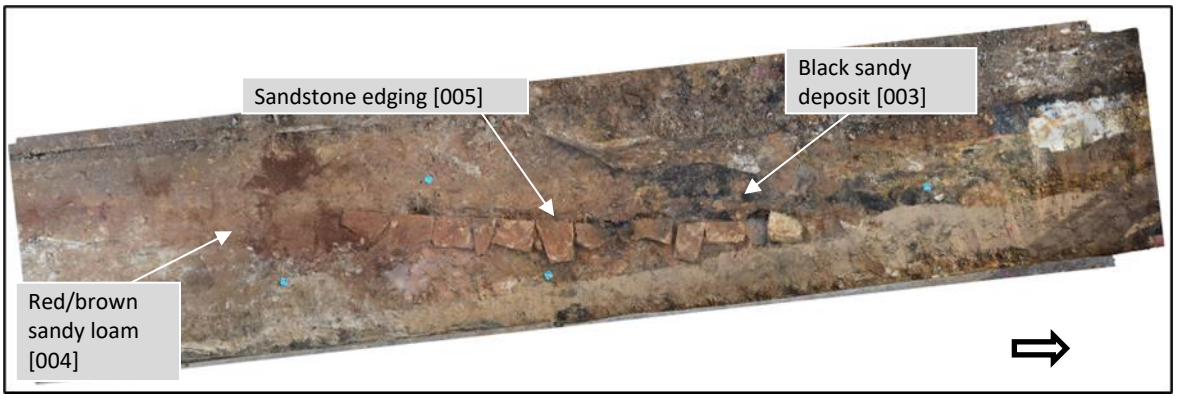

Figure 3.2: Orthophoto of sandstone blocks running north-south down Blues Point Road. Note the straight edge on the western side and the continuation of the red/brown fill. Archsurv Guy Hazell.

Sandstone edging in WZ1A

During excavation of WZ1A four sandstone blocks were revealed. Their alignment and fill were the same as context 005 to the north, as such it is evident that the four blocks were the southern termination of the context 005 (Figure **3.1**). Two of the blocks had to be removed for the installation of a lamppost. On removal of the blocks, it was determined that there were no courses below. It also revealed a horizontal wooden plank [008] which was positioned floating in the red/brown sandy loam fill [004] that was used for the edging. Below context 004 was a dark grey mottled sand [009] with small sandstone inclusions. This was also observed immediately below the fill of the road base [002] next to the cliff face, suggesting that context 004 was an imported fill for the edging. The colour of the fill indicates that it was not locally sourced or that it has absorbed a mineral from one of the industrial uses on the site. Historic images show that this area of the site has repeatedly been used as an area for storage (Figure 3.6, Figure 3.6).

Figure 3.3:Sandstone blocks revealed at southern end of Blues Point Road, pre-excavation.

Figure 3.4: View of timber plank [008] in [004] after two sandstone blocks were removed.

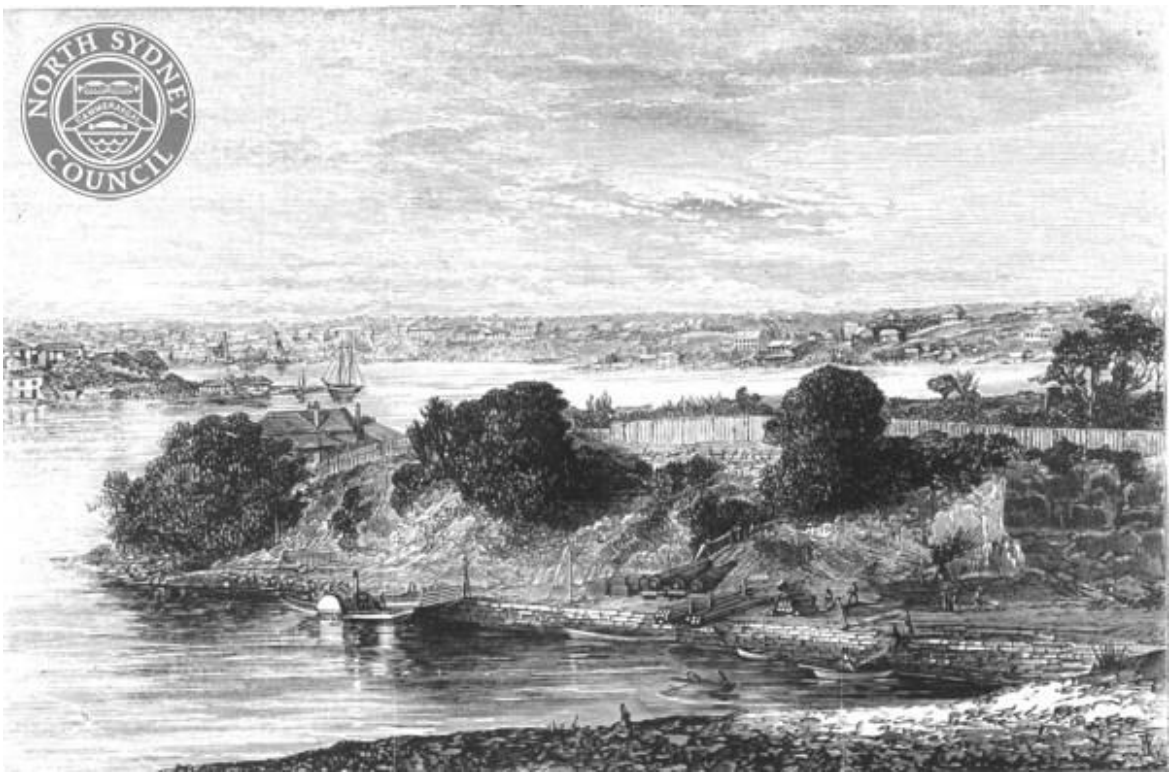

Figure 3.5: Etching of Blues Point, tentatively dated to c.1840s showing a seawall and jetty into which a small paddle steamer is moored. It also shows the west side of the site being utilised for storage. 'Etching of Blues Point and view west towards Parramatta River', c.1840s, Face of North Sydney, LH REF PF393. Available at https://stanton.imagegallery.me/site/welcome.me

Figure 3.6: An undated (c.1858-59) photograph of Blues Point by Robert Hunt providing evidence of the western area of the site being used for storage. SPF/799 ML SLNSW.

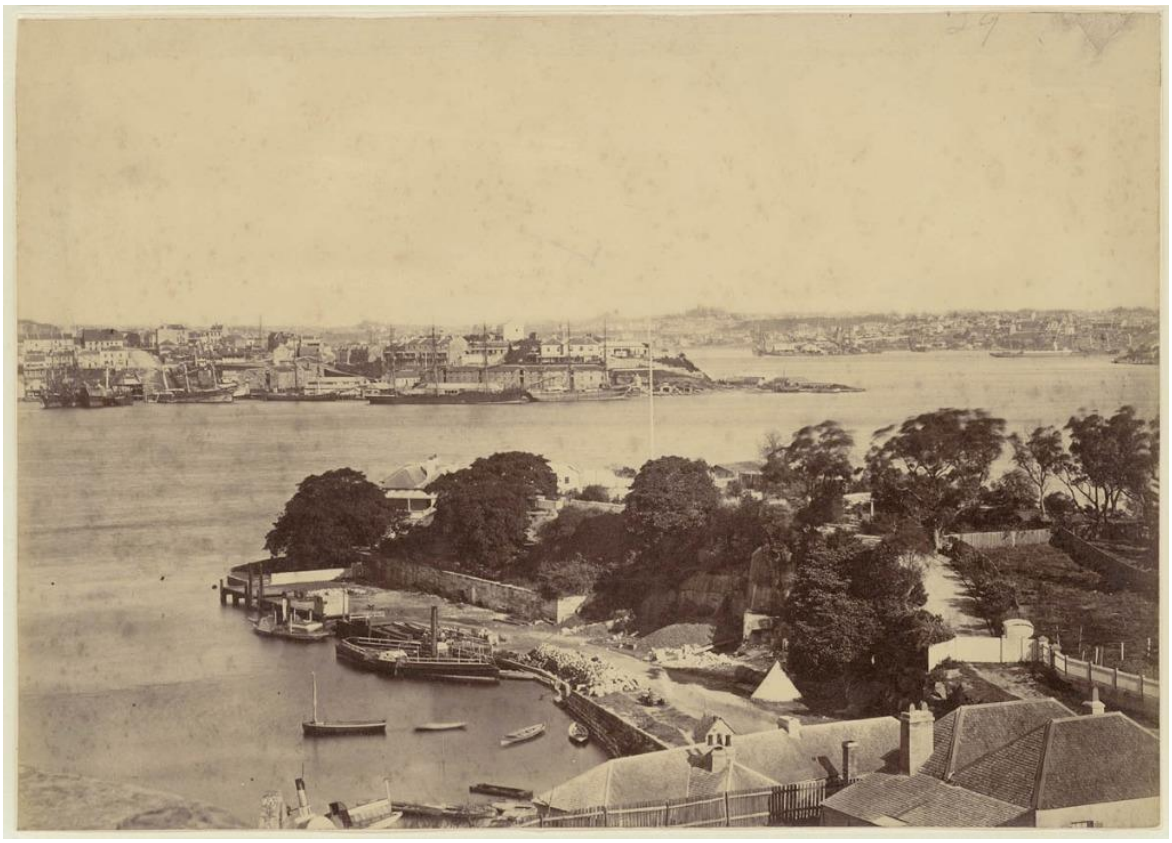

Figure 3.7: Undated view from Blues Point towards Millers Point attributed to John Paine and dated to 1873 showing evidence of storage along the bottom of the cliff face. SPF/934 ML SLNSW.

The c.1874 image following shows sandstone edging just north of three wooden structures probably associated with the coal yard (Figure 3.8). The wooden plank identified inWZ1A is likely associated with these wooden structures. This image also shows a sandstone stormwater drain at the top of the seawall; both these features are discussed below.

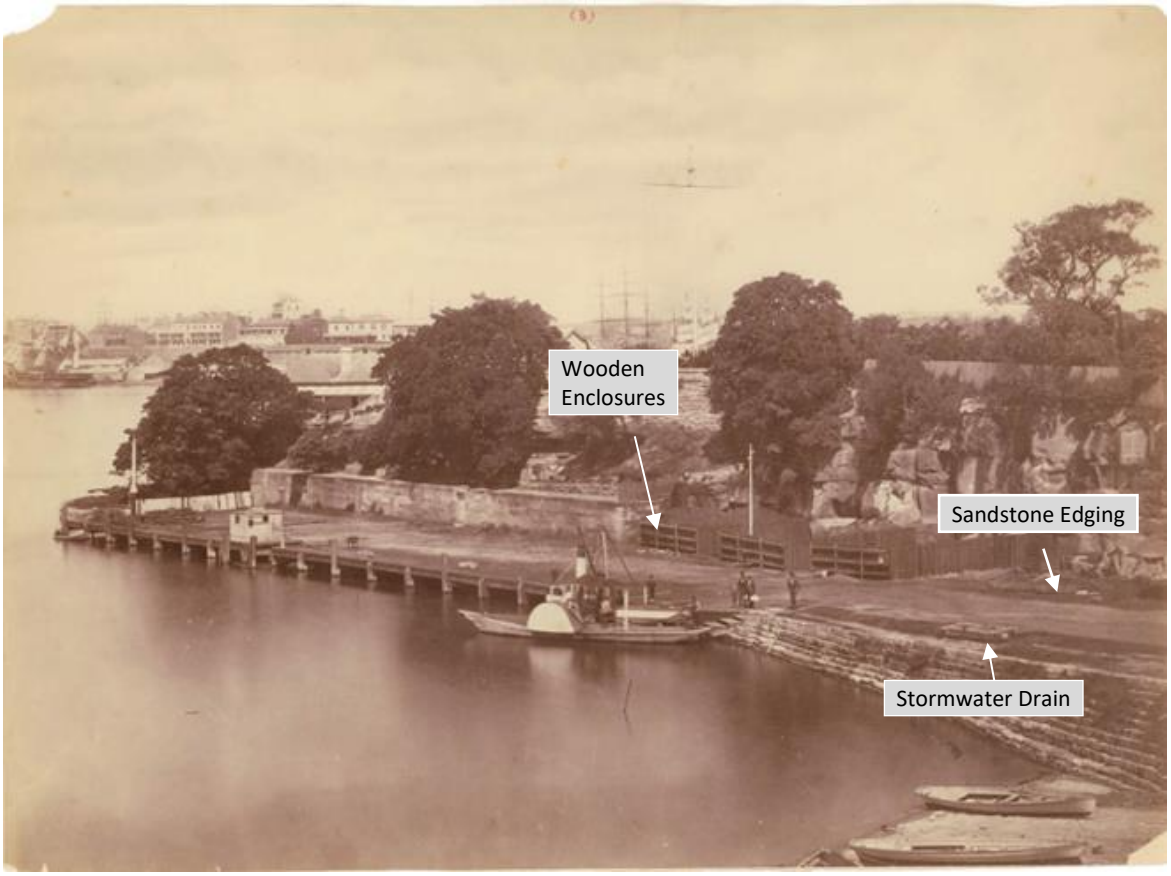

Figure 3.8: Image of the coal yard at the bottom of Blues Point Road dating from c.1874. The sandstone edging can be seen on the western side of the road. Note the wooden enclosures with horizontal planks across the front. Also visible on this image is the sandstone stormwater drain and the sea wall. SPF/800 ML SLNSW.

Storm water Drain in WZ3D

The scope of work in WZ3D required trenching to be excavated to 1020mm. The trench revealed a large ceramic service pipe running west to east [010], and a large stormwater pipe [011] running north to south into a large concrete drain [012] that is also open to the harbour. Below this was a layer of coal tar with small sandstone inclusions [013] above a dark brown sandy/silty fill with large sandstone inclusions [014] and a square sandstone structure [context 015], likely a drain or a silt trap. The pipe [011], broken during excavation, can be seen on both sides of the trench just above the top course of the sandstone drain (Figure 3.11, Figure 3.12).

The drain consisted of four sandstone blocks, laid out in an open square shape and measured approximately 1.32m². The top course of blocks measured approximately 900mm to 1200mm in length, 300mm in height and 350mm in width. The blocks on the eastern side of the feature had a curved, worn area that was very smooth with no tool marks evident. This could potentially be attributed to water wear around a vertical drain pipe. The blocks on the southern side of the feature showed tool marks, indicating it had been modified but it is unclear as to why (Figure 3.10). The second course of blocks were approximately 600mm in length, with the curved mark continuing from the top course on the eastern side (Figure 3.10). The fill [014] on top of the drain was also found in the drain (Figure 3.9). Part of the stormwater drainage system for the area can also be seen at the base of the drain on the south-eastern corner. The drain was excavated for the new drainage systems, leaving one block in situ (Figure 3.12).

Figure 3.9: View of the brown, sandy/silty fill with large sandstone inclusions [014] on and in the sandstone drain [015].

Figure 3.10: Image of the sandstone drain [015] in WZ3D. Note the worked (red arrow) and smooth, worn (yellow arrow) areas.

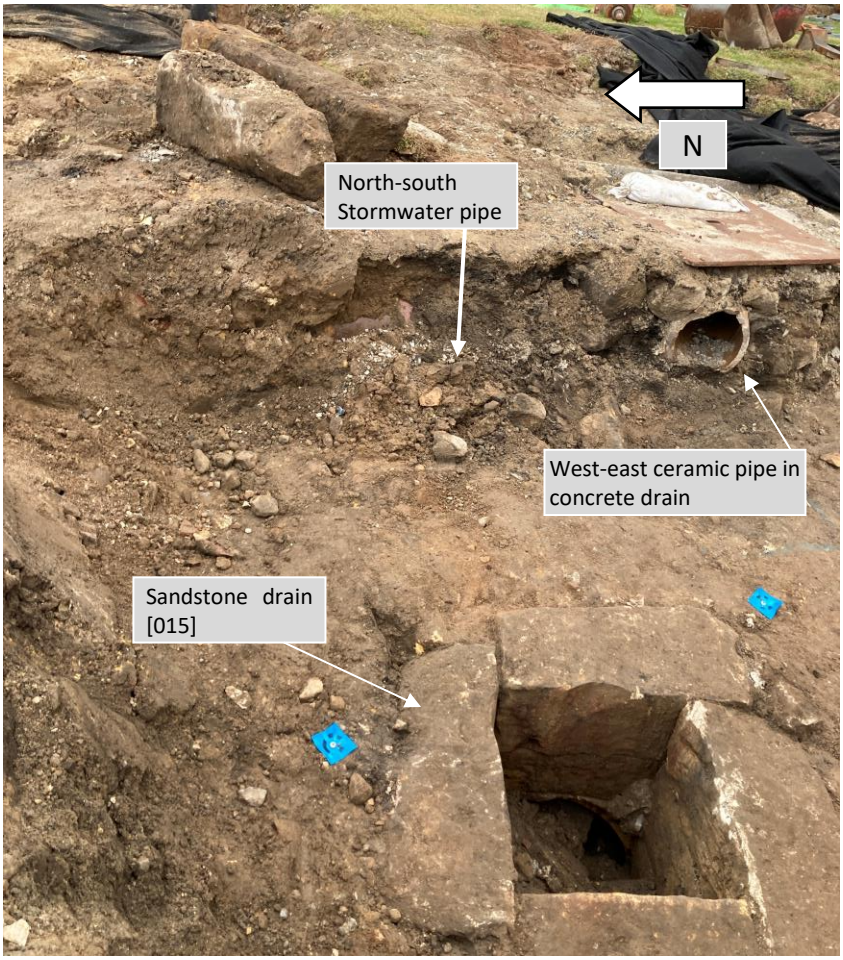

Figure 3.11: Image of the sandstone drain [015] with part of the stormwater drainage pipe in the southeast corner running towards the harbour.

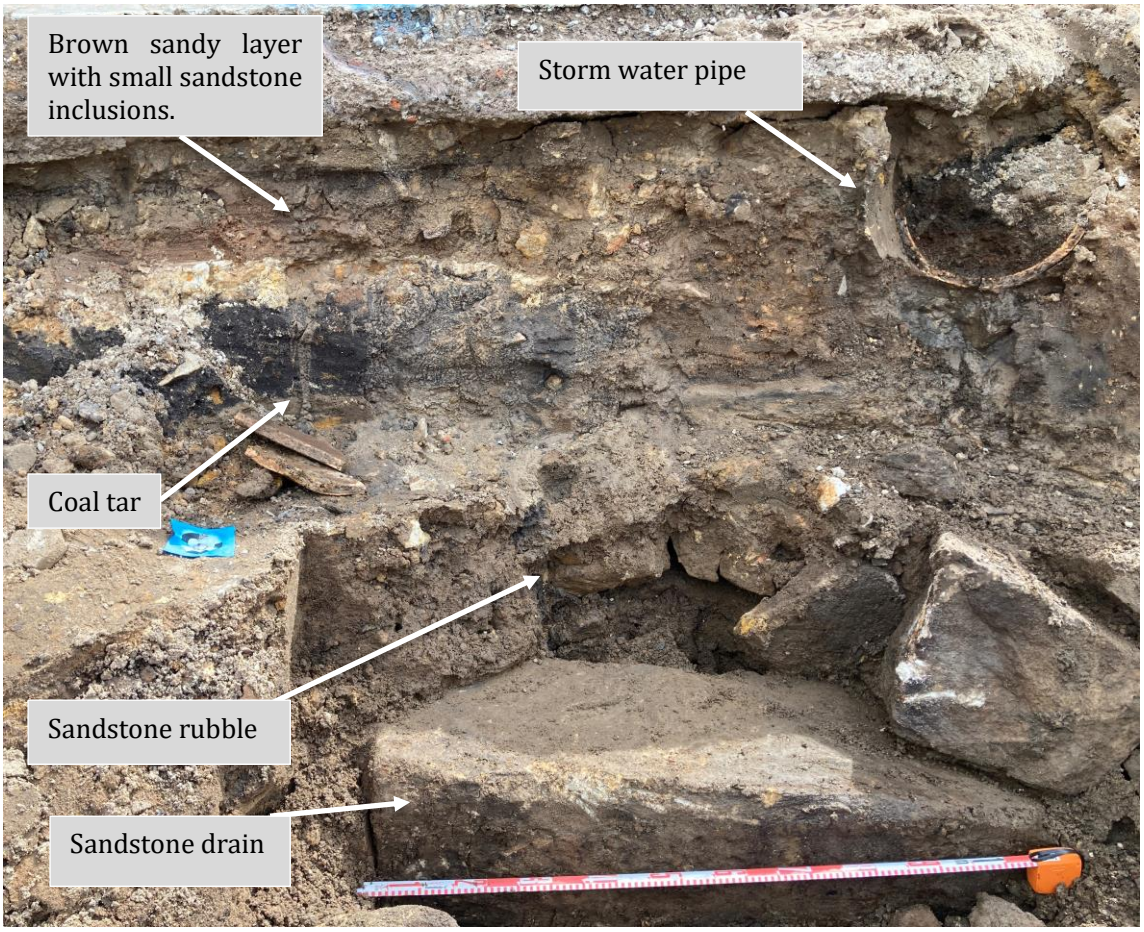

Figure 3.12The western lower sandstone block of the drain that was not removed. The sandy/silty fill with large sandstone inclusions is evident in this image. Above this is the coal tar level and above this is the west-east running pipe in a sandy brown layer with small sandstone inclusions.

Figure 3.13:Detail of tool marks on the southern block from the drain [015].

Sandstone kerbing and walls in WZ3A

Excavations on the eastern side of the study area, in WZ3A, included the removal of concrete and a portion of the sandstone kerbing from the footpath still in use prior to this stage of work (Figure 3.14). The removal of concrete abutting the footpath to the west, exposed a second course of sandstone blocks under the kerbing (Figure 3.15, Figure 3.16). During further excavations for the

inclusion of the bluestone seat, three courses of a sandstone wall [019] were exposed. In 2018 Casey & Lowe excavated a northern section of a north-south sea wall [328] that was incorporated into the footpath and that joined the earlier c.1850s sea wall [333] (Figure 3.17). However, the alignment of the wall in WZ3A is different to all variations of the seawalls or retaining walls suggesting its later construction and use.

Under the concrete and the brown silty sand of the road surface a mottled yellow fill was observed [020]. The depth of the excavation needed to the west of the wall allows the vertical sides of the wall with worked and undressed stone on the lower courses to be seen (Figure 3.18). The fill to the west of the wall was a sandy/silty fill with large sandstone inclusions [014] and is present across the site. Coal tar was identified under this layer and abutting the sandstone wall. Coal tar is a by-product of the coal distillation process. It was commonly used as a binder in asphalt mixes in the Sydney area between c.1973 until 1977 and in small quantities until c.1989 (NSW Transport RMS 2015). This fill was brought in for the road surface and placed above the wall [019] and below the sandstone kerbing [328].

It is likely that the section of the wall 328 exposed by Casey & Lowe was a sea wall that was extended and modified during one of the many changes to Blues Point Road and the vehicular ferry, with its direction changed to utilise its function.

Figure 3.14: Partial footpath along Blues Point Road with sandstone kerbing still in use in 2022.

Figure 3.15: The sandstone wall below a course of dressed sandstone used as the footpath running down Blues Point Road.

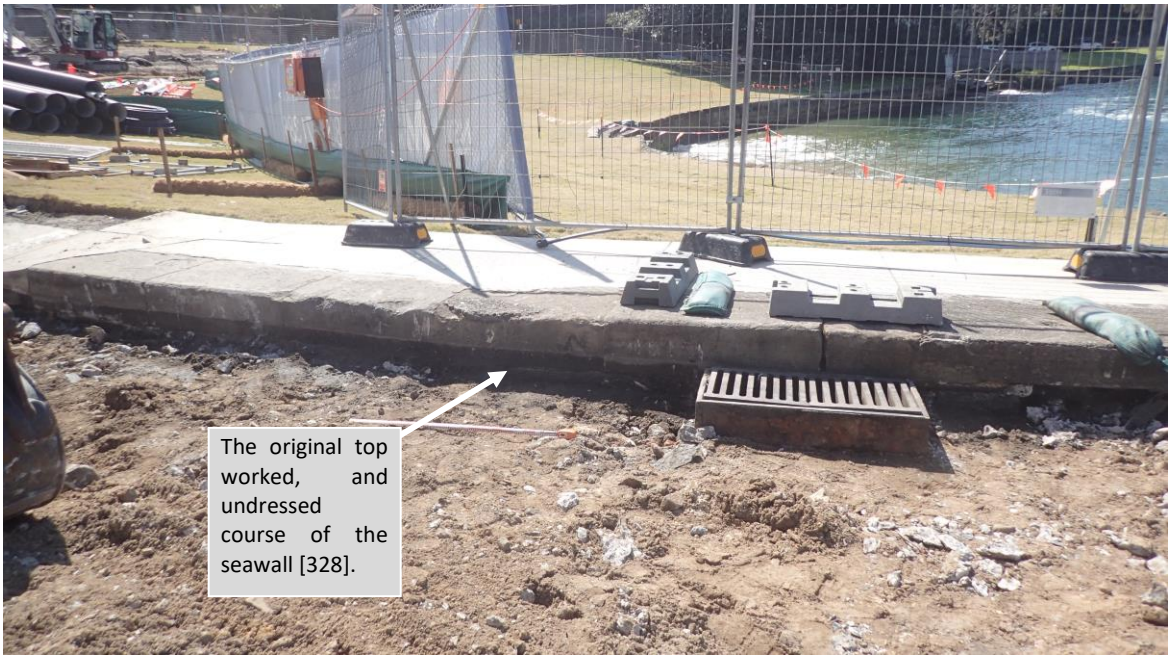

Figure 3.16: A North-eastern view of the footpath with its dressed top course of sandstone blocks incorporated into the footpath with the undressed and worked second course revealed during the removal of concrete.

Figure 3.17: c.1800's seawall incorporated into a footpath along east side of Blues Point Rd and connecting to the earlier 1850's sea wall. View to north-west. Source: Casey & Lowe 2021. Figure 4.89.P.173.

Figure 3.18: The vertical unworked side of the reduced sandstone seawall [328] with the sandstone kerbing above.

c.1850s seawall in WZ3D

The section of the c.1850s sea wall [333] excavated by Casey & Lowe in 2018 was also uncovered during excavation in WZ3D (Figure 3.17 and Figure **3.1**)

An isolated sandstone block was lying north-south alongside the stormwater drain and aligned with the 1857 seawall. The fill around the block was a light brown/grey sandy/silty layer. The sandstone block, measuring 1.10 meters in length, was removed for the installation of the drainage system, revealing a second course of sandstone blocks below, these were lying west-east (Figure 3.19, Figure 3.20, and Figure 3.21). These blocks were below the level needed for continuation of the works and remain in situ.

Figure 3.19: View to the west. A sandstone block likely from the 1857 sea wall [333] alongside the stormwater drain pre-excavation.

Figure 3.20: Isolated sandstone block potentially from the c.1850 sea wall alongside the stormwater drain and a modern concrete block. View to the south.

Figure 3.21: A second course of sandstone blocks, lying west-east witnessed below the isolated sandstone block potentially from the early seawall [328].

Hawkesbury Sandstone

The excavation for the five garden beds and associated drainage in WZs 3D and 3E required a depth of 1020mm to lay drainage from garden bed to bed. The depth of the trenches revealed the undulating nature of the Hawkesbury Sandstone and its natural benching (Figure 3.22).

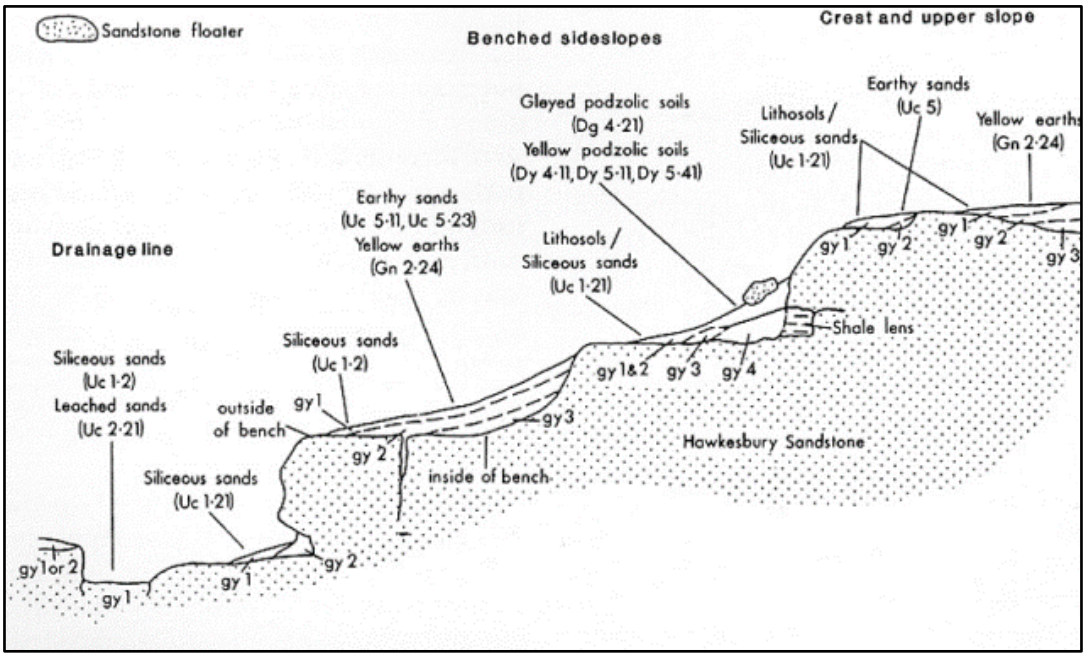

Figure 3.22: Schematic cross section of Gymea soil landscape illustrating the natural benching of Hawkesbury sandstone and the occurrence and the relationship of the dominant soil materials. (https://www.environment.nsw.gov.au/Salis5app/resources/spade/reports/9130gy.pdf).

Above the bedrock the historic layers of fill could be seen, including layers of small sandstone rubble, a black organic layer and mid to dark brown earthy sands that were encountered throughout the site. The sandstone rubble [014], which was a constant presence across the site was possibly reused from structures, including walls and buildings, from naturally sourced sandstone. The rubble was as much a convenient way to fill and raise the level of the area as well as a drainage management tool, helping with the rainwater run off coming down Blues Point Road. While the bedrock was exposed a heavy rainstorm demonstrated the extent of the water runoff and explained its weathering effects on the bedrock. The channels worn by the water over time were clearly evident and any soil or sand on the bedrock now exposed was washed away leaving a spongy deposit at the base of the bench.

The trench in WZ3D ran alongside an unused terracotta service pipe, exposed during excavation (Figure 3.23). This is the continuation of the stormwater pipe [011] seen in WZ3E demonstrating the need for water management across the site.

Figure 3.23: Trench for a garden bed in WZ3D showing the exposed bedrock at the top of the trench, a service pipe on the right and the steep natural benching of the bedrock.

In WZ1D, the removal of a drain connected to the Blues point Tower, exposed the north end of the heritage wall foundations. The heritage wall was erected in 1887 by the Mayor D Munro Esq. On inspection it was noted that sandstone blocks had been robbed from a large section of the wall, the pipe inserted, the concrete drain installed and mortared to the Heritage wall. The wall was

replaced with mortar used to secure the blocks. Next to the concrete drain were partial remains of a wooden telegraph pole (Figure 3.24, Figure 3.25, Figure 3.26). The ongoing development of Blues Point and the construction of Blues Point tower in 1962 increasing the population of the area necessitated increased service installation.

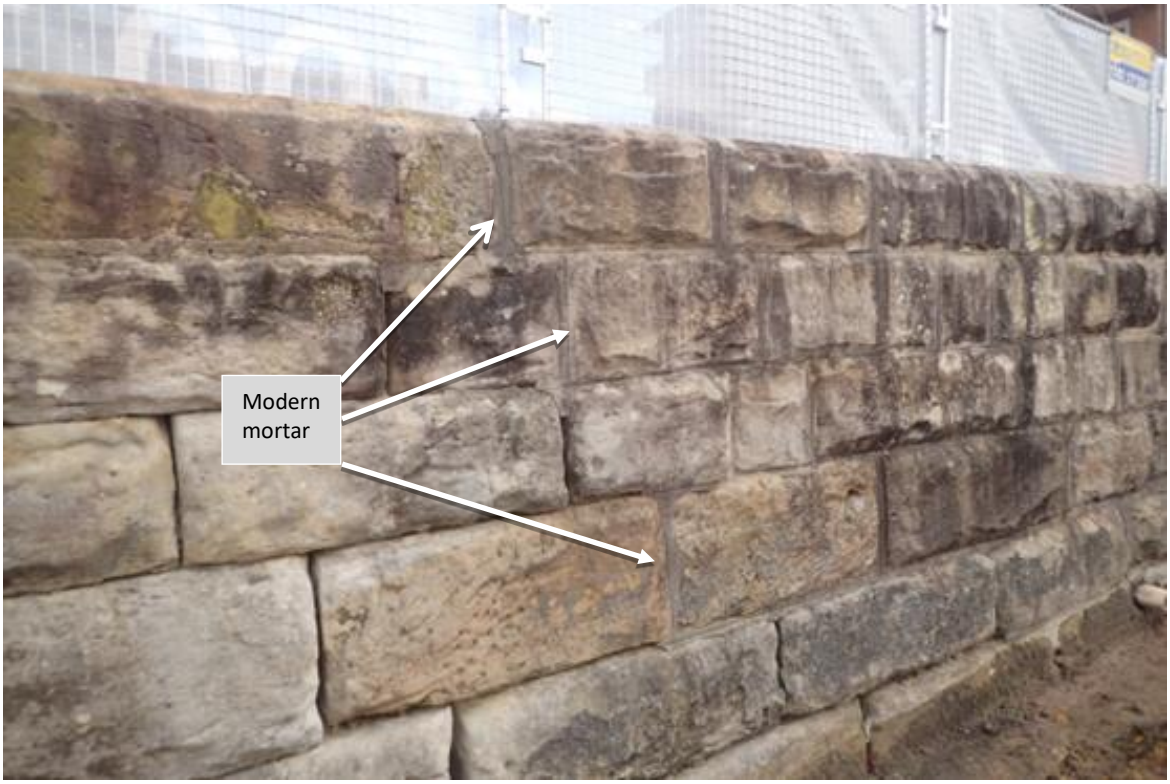

Figure 3.24: Section of the 1887 wall that was removed and replaced for the installation of a service pipe and drain. The modern mortar used to rebuild the wall highlights the modification.

Figure 3.25: The concrete drain and connecting pipe laid under the northern most section of the heritage wall.

Figure 3.26: Detail of the remains of the wooden telegraph pole alongside the concrete drain with the plastic pipe.

4 Archaeological significance reassessment

4.1 Previous statement of archaeological assessment of Significance

In 2022 AMBS provided an updated statement of significance for stage 2, which states:

> *The potential archaeological remains associated with former road surfaces and drainage infrastructure would only contribute to our understanding of the development of the site in a minor way and would not meet the threshold for local significance. Archaeological evidence of the former wharf alignment and seawalls has the potential to add to the knowledge gained by the Casey & Lowe excavations, but is unlikely to provide new insights into the development of the site. It may however contribute to the existing information relating to the history of the occupation of the site and how the wharfage might have adapted to accommodate changing needs and technologies. Archaeological excavations undertaken previously within Blues Point Reserve have provided substantial information pertaining to the development of Blues Point and the activities that occurred at the site. The archaeology of the Stage 2 site has the potential to contribute to this body of knowledge. Should archaeological remains be present they are considered to be of local significance at a contributory level.*

4.2 Research Questions

The AMBS 2022 AMS considered the research potential of archaeological remains to be low and therefore proposed that should any substantial remains be identified then these would be addressed through the research framework provided by previous assessments. As demonstrated in this report the archaeological remains revealed were limited. They can be considered to contribute to the archaeological record as presented by Casey & Lowe in the 2022 excavation report. They present evidence of continued land reclamation at Blues point with further evidence of the c.1857 seawall and the fills associated with the road comprising sandstone rubble [014] which was homogeneous across the site. Possibly containing reused sandstone from previous structures and naturally sourced sandstone, the sandstone rubble fills were as much a convenient way to fill and raise the level of the area as well as a drainage management tool. No further conclusions or research questions are considered pertinent owing to the limited resources revealed.

4.3 Reassessment of significance

The historical archaeological monitoring has identified that the remains associated with the former road surfaces and drainage infrastructure contribute to our understanding of the development of the site in a minor way and does not meet the threshold for local significance. The archaeological evidence of the former wharf alignment and sea walls has provided new insights into the development of the site and contributes to the existing information relating to the changing needs of the wharf and infrastructure. It is considered that the remains present are considered to be of local significance as the previous assessment states.

4.4 Archaeological Research Potential

There were no relics present within the archaeological resources, reclamation fills, seawalls or retaining walls. Therefore, AMBS considers, the criterion and research potential of potential archaeological resources to be low.

5 Conclusion

The monitoring of Blues Point presented limited archaeological resources with low research potential of local significance. Results of the archaeological excavations undertaken within the stage 1 study area are pertinent to the stage 2 study area and reveal early seawall construction and reclamation/levelling fills evident across the site, in the southern portion of Blues Point Reserve a seawall continues along the eastern border of Stage 2 (western border of stage 1) study area. Many of the features found during the archaeological monitoring were extensions of features excavated by Casey & Lowe in 2018 and show the use and reuse of the natural Hawksbury sandstone in the area.

The sandstone blocks running north-south on the western side of Blues Point Road were laid with their straight edges on the side nearest the heritage wall, with an uneven edge facing the road. This suggests their use is twofold, creating an unseen lower course of the edge of Blues Point Road and creating a path or a guttering on the western side of the road for water management. It is also possible that the feature is used for the storage of the coal, timber and ironwork associated with the industrial activities that occurred in the area.

The inclusion of a sandstone drain and its association to the historic stormwater pipes on the site is an example of the importance of the drainage management at the bottom of the steep Blues Point Road. The blocks used for the feature were worn and worked with rounded channels, indicating their reuse or modification for this feature.

The partial exposure of the c.1857 sandstone sea wall [333] that ran north-south on the eastern edge of the stage 2 study area is part of the same wall excavated by Casey & Lowe on the western edge of their excavation. This wall connects to a wall [328], also exposed by Casey & Lowe, that was later incorporated into the pavement running down Blues Point Road. As noted by Casey & Lowe in the Blues Point Archaeological Excavation report in 2021, the seawalls and retaining walls at Blues Point changed and evolved with the ongoing and changing uses and development of the foreshore and this wall is evidence of these changes. The change of alignment towards the ferry wharf suggests its construction occurred during the changes to the ferry wharf in the early 1900s and reconfirms the changing uses of Blues Point.

Throughout the 2018 excavation, Casey & Lowe encountered sandstone rubble used to impede the flow of water, as well as to raise the ground level prior to the construction of the 1867 houses (Casey & Lowe 2021:118). The archaeological monitoring by AMBS has demonstrated that the changing development of the area utilised demolished features with the use of large and smaller pieces of sandstone rubble for fill and drainage.

Based on the results of the monitoring it is concluded that the study area has been significantly disturbed through land clearing, and the past occupation and use of the site including building, demolition, land reclamation, and instalment of water and drainage infrastructure is evident. The evidence of sea walls, edging and drainage systems confirm that historic modifications to the area were carried out enabling the ongoing and changing uses and development of the area.

The completion of this report fulfils the conditions in accordance with CoA E18 of the SSI approval 15_7400. This report should be submitted to Heritage NSW, North Sydney Council and North Sydney Local Studies Library. Any future works within the site which would impact on areas not included within this archaeological program would require further archaeological assessment to inform mitigation and management of the identified resources.

6 Bibliography

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7 Appendix

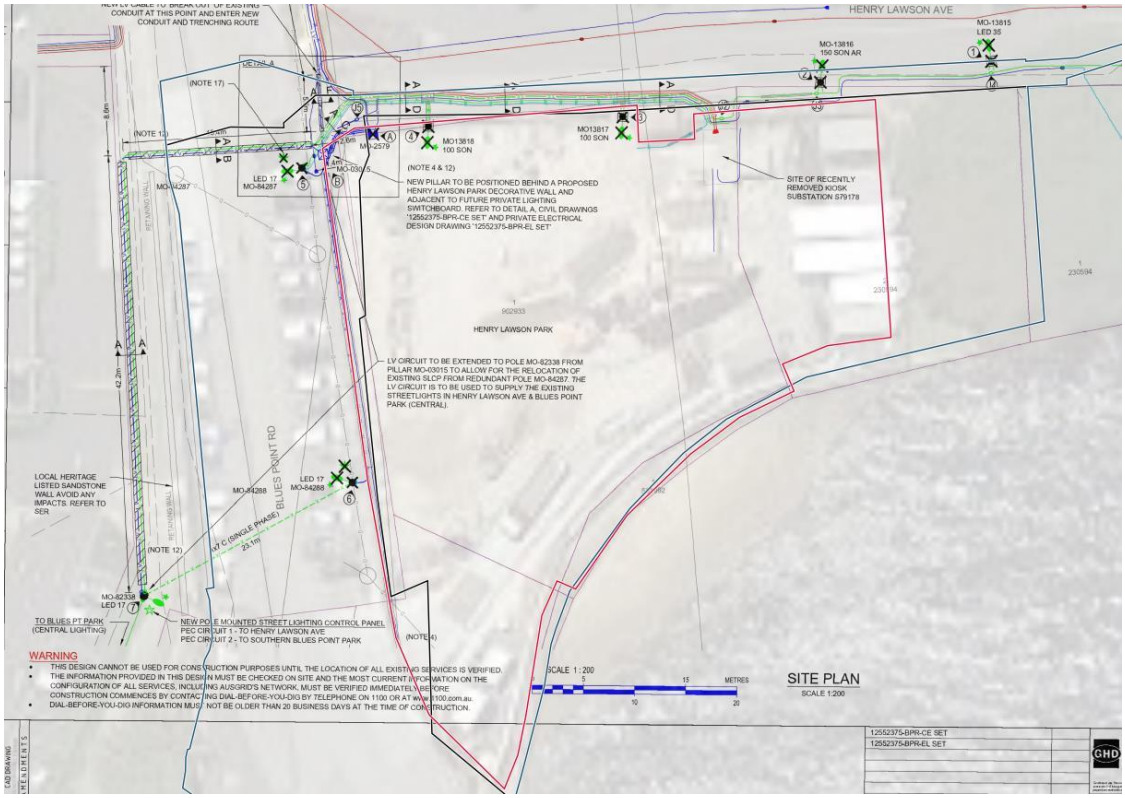

Figure 7.1: Proposed Ausgrid works. Source: Systems Connect 2022.

Figure 7.2: Interpretative media locations. AMBS 2022.