

5.7 Wharf 4/5

5.7.1 Difficulties

Work on Wharf 4/5 commenced at the same time as that at Pier 2/3 but the second wharf encountered more difficulties in respect of the existing structures and environmental issues. In 1913 it was reported that *"the construction of this jetty providing these two berths has been pushed on but on account of the old jetty known as Parbury's No. 3 crossing the line of the new work, operations will be hampered until this old structure, still in use for shipping can be removed. The water in the vicinity being deep and this bed of the harbour being soft, piles 110 feet long consisting of two turpentine spars spliced together are used and longer piles will be needed as the jetty is pushed out from the shore. A portion of the longshore wharf, sea-wall and reclamation extending westerly have been completed"*⁵⁷. In 1914 it was reported that "considerable work" had been done on wharf 4/5 *"but the great depth of water hereabouts makes progress somewhat slow"*⁵⁸.

Apart from the water depths other problems emerged in the construction of this wharf; there was difficulty in finding suitable piles for splicing. Very long lengths up to 130 feet were required; they were driven through what was described as ballast, clay, silt and sand to a depth of up to ninety feet.

5.7.2 Progress

By 1914 the high level section of the jetty had been completed 260 feet out from the reclamation and piles were driven out for a further distance of forty feet. The construction of the new wharf required the demolition of the old Parbury's No 2 Wharf and the shed on that wharf was removed to the new jetty. The low level section of the jetty was commenced in October 1913 and in 1914 it had been carried out 160 feet and the piles and other substructures an additional eighty feet. The cross wharf had been completed on the western side and up to 80 feet on the eastern side. The sea wall at the back of the cross wharf was said to be well advanced in 1914⁵⁹.

In 1915 it was reported that *"steady progress was made with the construction of this jetty during the greater part of the year. In March last operations were temporarily suspended to allow the blanketing of ballast placed on the bed of the harbour time to settle. The unstable nature of the bed of the harbour at this site (has been discussed several times). The jetty has now been completed for a length of 380 feet from the reclamation line and has been used for shipping purposes for some time past"*⁶⁰.

5.7.3 The Shore-shed

In 1916 *"on the shore end a large amount of work has been done in connection with the shed foundations, all the piles are now in place and most of the sills and joists. The foundations for the wall fronting Hickson Road are for the most part of solid concrete the rock at this place being well above low water level"*⁶¹.

In 1917 the work on this wharf was practically closed down because of shortness of funds; *"no permanent construction was done on the jetty proper but the whole of the shore shed foundation piles, including 127 squares of headstocks, have been completed and 875 cubic yards of concrete for the main front wall have been set. The ramp approach to No 5 berth and the low level right of way*

⁵⁷ Annual Report of the SHT 1913

⁵⁸ Annual Report SHT 1914

⁵⁹ Ibid

⁶⁰ Annual Report of the SHT 1915

⁶¹ Annual Report of the SHT 1916

*between No 5 and No 6 have been completed*⁶². Further work was required to demolish more of the old Parbury Wharf in order to widen the entrance to No 4⁶³. Timber had been ordered but work on the sheds had not commenced at this time. In 1918 the whole of the shore shed foundations were completed and also the rat-proofing of the floor of the high section of shed. *“Considerable progress was made in the erection of the brick front facing Hickson Road”*⁶⁴.

5.7.4 Temporary Depot

Despite not being complete Wharf 4/5 was in use as an ore depot in 1917⁶⁵. Alterations were carried out for the formation of a temporary ore depot for the Imperial Authorities and Birt and Company used it for that purpose. The work required fenders set on both sides of the unfinished end of the wharf to protect it and bins were constructed on the eastern side to hold the ore⁶⁶.

5.7.5 Solving Problems and Completion

The war also effected construction of Wharf 4/5; in 1919 it was reported that no extension had been made to the jetty in this year. 2600 tons of ballast were tipped under a portion of the jetty that had settled because of the soft ground in the harbour at this point⁶⁷.

The year 1920 was characterised by materials shortages and rectifying faults in the structure. In the latter part of 1920 work commenced on raising the subsided portion of the jetty; an area of about 120 x 90 feet of the high level portion was raised to the correct height. 3000 cubic yards of ballast was tipped under the centre of the jetty to stiffen the piles⁶⁸. In 1920 another 170 feet were added and the buildings were described as *“practically completed and ready for use”*⁶⁹. The wharf was effectively completed in 1922.

5.7.6 Remodelling and Adaptation

Wharf 4/5 had another period of work undertaken in 1938. The work of remodelling was described in that year and encompassed the following:

- lowering of the raised portion of the upper floor;
- raising of the wharf deck of No 4 to bring it up the same level as No 5
- widening of the lower shed by 20 feet
- the provision of a platform, together with five new steel gantries on the western side of the upper floor
- relegating the elevators, dead houses, offices and sanitary accommodation to exterior or end positions.

“The alterations when completed will enable more effective use to be made of the upper and lower floors, both of which will have uninterrupted cargo space of 612 feet x 80 feet from end to end; will

⁶² Annual Report of the SHT 1917

⁶³ Ibid

⁶⁴ Annual Report of the SHT 1918

⁶⁵ Annual Report of the SHT 1917

⁶⁶ Ibid

⁶⁷ Annual Report of the SHT 1919

⁶⁸ Annual Report of the SHT 1920

⁶⁹ Ibid

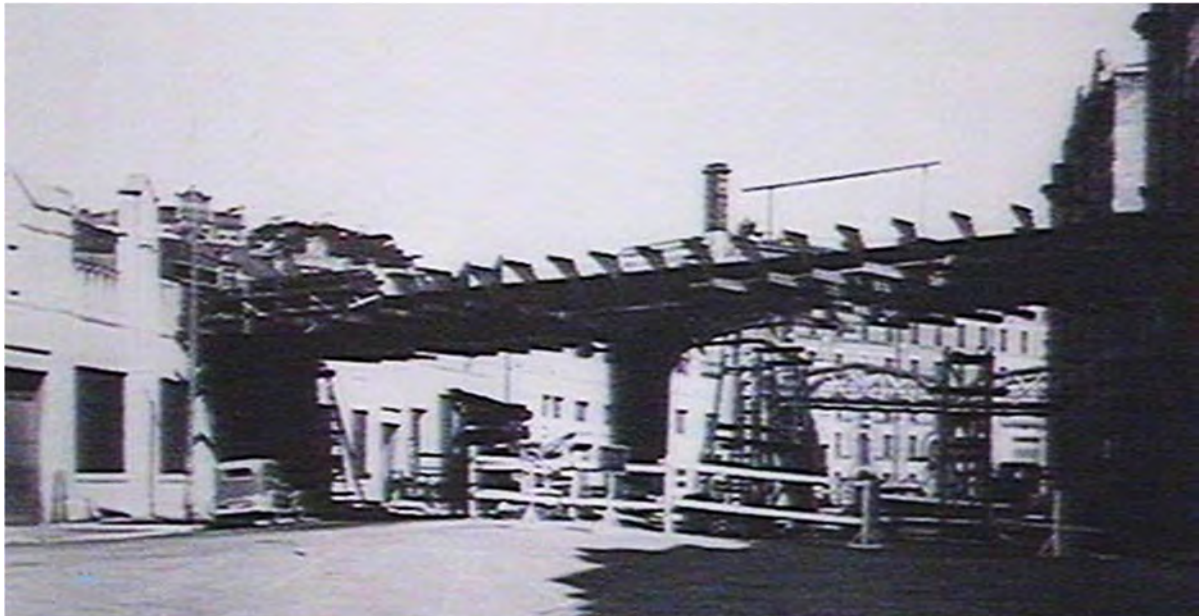
5. The Twentieth Century Landscape

*permit vessels being berthed and worked on either side of the jetty and will with the provision of adequate lifting appliances facilitate the handling of cargo*⁷⁰.

The work continued into 1939; the new cargo handling appliances were described then as:

- No 4 wharf side: seven wooden gantries
- No 5 wharf side: eight steel gantries
- Upper floor of shed: six 15cwt bridge cranes
- Lower floor of shed: one 5-tonne electric travelling hoist, one 3-tonne electric travelling hoist and one 3-tonne bridge crane⁷¹

The work of remodelling was completed in 1940. As part of the work the wooden bridge spanning Hickson Road and leading to the upper floor of the shed was demolished and replaced with a new and wider bridge constructed in steel with a concrete deck⁷². In 1984 Wharf 4/5 was adapted for new use as the Wharf Theatre and Restaurant. The successful adaptation of this building won two awards for excellence.



Constructing the new bridge to Wharf 4/5 in the 1930s (Source: Government Printer 1-19648)

⁷⁰ Annual Report of the SHT 1938

⁷¹ Annual report of the SHT 1939

⁷² Annual Report of the SHT 1940

5.8 Hickson Road

5.8.1 Excavation

An integral part of the new work was the construction of a road that would connect the new wharves at Darling Harbour with those at Millers Point and Dawes Point. The scheme required demolition of existing buildings and substantial excavation back into the face of the sandstone cliffs that bounded this waterfront. Work on Hickson Road commenced in 1909⁷³. The excavation commenced close to the gas works on Darling Harbour; the sandstone rubble removed as part of the excavation was used as fill behind the trestle walls being built on the shore.



Excavation of the foreshore for the new road, here a view of these works and the construction of new wharves on the western side of Darling Harbour near the Gas Works in 1909 (Source: SHT Annual Report 1909)

In 1913 it was reported that the section of the road from Dawes to Millers Point was making good progress: *“the excavation of the rock necessary to give the width of the roadway has been completed as far as Parbury’s Bond Store. The total amount excavated in the year amounted to 14,500 cubic yards of which 1,532 cubic yards has been taken out as dimension stone. The retaining wall has been completed up to Milton-terrace with the exception of the coping and the wall has been continued around the back of Milton-terrace for a distance of 70-feet”*⁷⁴.

By mid-1914 the road from Dawes Point to Millers Point had been completed as far as the Parbury Wharf within the project area in addition to a section at the western end near Wharf 8/9. *“The excavation of rock necessary to form the road between the two points has been effected. Some of this rock has been taken out as dimension stone and used in the construction of retaining walls at*

⁷³ Annual Report of the Sydney Harbour Trust Commissioners 1909; 21

⁷⁴ Annual Report of the SHT 1913

*Woolloomooloo*⁷⁵. At the same time the construction of the new deviation to Pottinger Street to meet Hickson Road was in progress; 4,400 cubic yards of rock had been removed in three months⁷⁶.



View west along Hickson Road showing the new bridge that spanned what was described as “deep rock cutting” through Millers Point. Wharf 8/9 is in the background and in the foreground can be seen some of the sandstone that has been extracted as dimension stone (Source: SHT Annual Report 1913)

5.8.2 First Use

The war that began in 1914 had an effect on several aspects of the construction programme but the road works appear to have been the least impacted; in 1915 traffic was then using Hickson Road between Dawes Point and the Gas Works on Darling Harbour⁷⁷. In 1915 the section of Hickson Road from Dawes to Millers Point with the exception of a small portion at the New Pottinger Street deviation was complete and opened from traffic⁷⁸.

5.8.3 New Pottinger Street

Considerable work was completed on New Pottinger Street in 1916. The rock excavation for the road and store were completed with the removal of 24,460 cubic yards of stone. *“The retaining wall fronting Hickson Road and the bridge abutments have been completed and the retaining walls on each side at the bottom end of the roadway are well in hand. The kerbing, guttering and pathway are*

⁷⁵ Annual Report of the SHT 1914

⁷⁶ Ibid

⁷⁷ Annual Report SHT 1915

⁷⁸ Ibid

formed as far as the site for the reinforced concrete viaduct, preparations for the construction of which are well in hand⁷⁹.



The extent of excavation of the existing landform required to create the new streets of Hickson Road and New Pottinger Street is demonstrated in this image (Source: GPO collection reproduced in Fitzgerald and Keating (1991), *Millers Point the Urban Village*)



The junction of New Pottinger Street and Hickson Road in the course of construction in 1916 (Source: SHT Annual report 1916)

5.8.4 Completion

Hickson Road had almost been completed in all details by this date in the area of Dawes and Millers Point. In 1916 all that remained to finish was the kerbing and guttering opposite berths 4-7 and the completion of the retaining wall behind Milton-terrace. The unformed section of the road next to New

⁷⁹ Annual Report of the SHT 1916

5. The Twentieth Century Landscape

Pottinger Road was also completed at this time⁸⁰. In 1917 the portion of Hickson Road in front of Pier 2/3 was ballasted, metalled and formed and the kerbing was laid in front of Wharf 4/5. On New Pottinger Street coping with a metal palisade was completed along the length⁸¹. By 1918 connections were being made to Pier 2/3; these upper level approaches to berths 2 to 6 were said to be “well advanced” in that year⁸².



Oblique aerial view of Walsh Bay in 1937 (Source: Fitzgerald and Keating (1991); Millers Point the Urban Village)

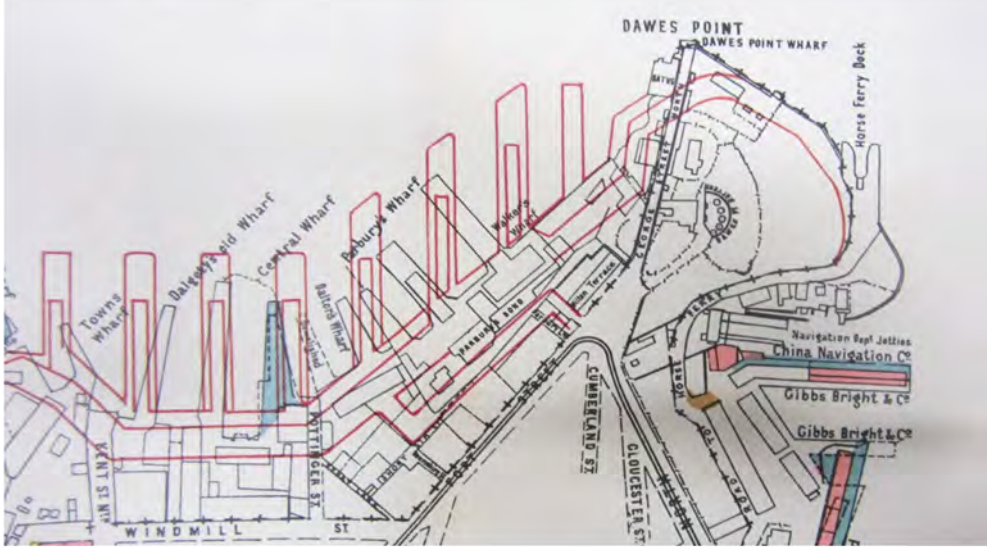
The works carried out between 1909 and 1922 completely altered the waterfront between Dawes Point and Millers Point. This development was charted by the Sydney Harbour Trust in its Annual Reports. The graphics prepared for those reports documenting the works of each year are presented in the following table; included are the keys that identify the type of works, such as demolition or construction, in each area.

⁸⁰ Ibid

⁸¹ Annual Report of the SHT 1917

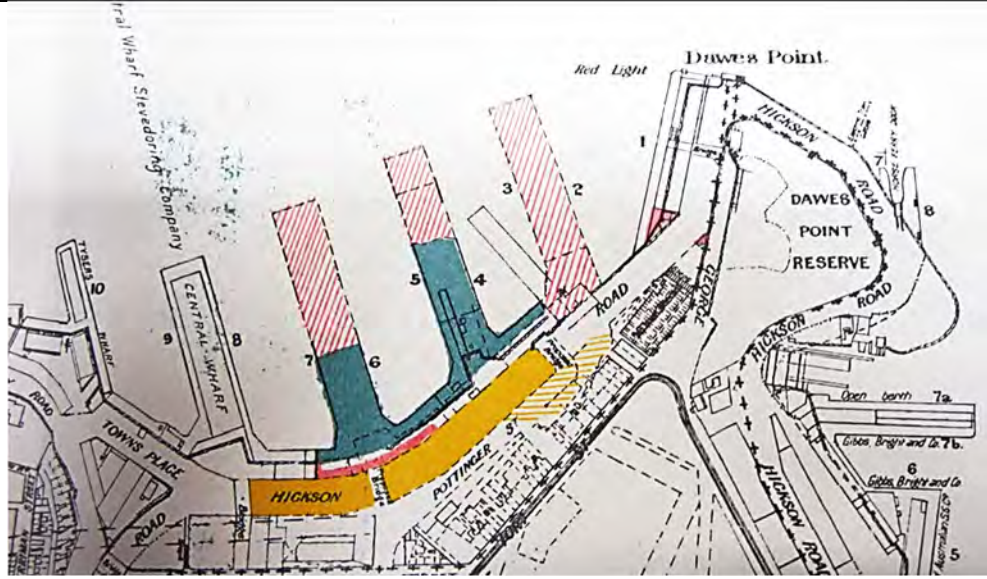
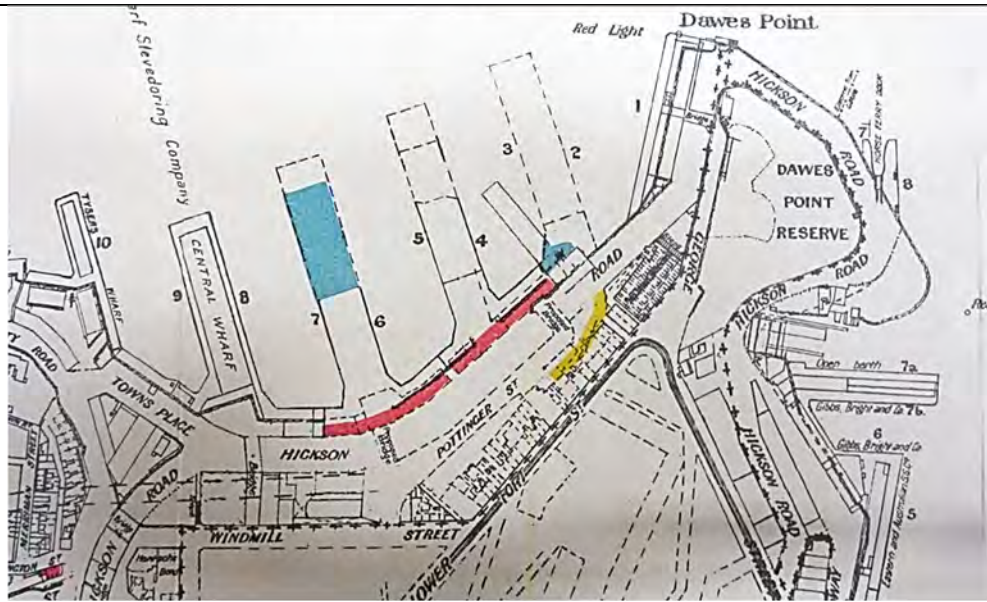
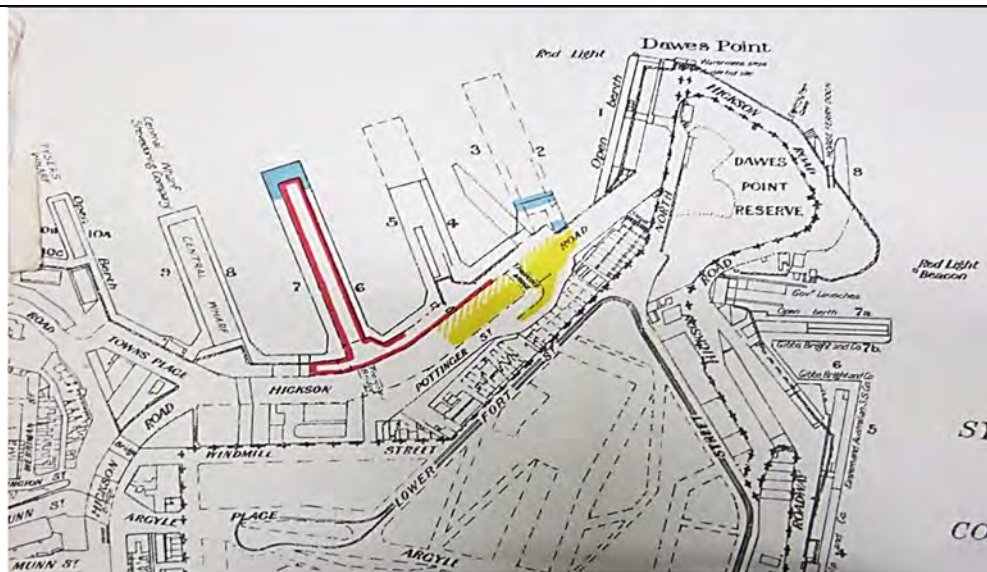
⁸² Annual Report of the SHT 1918

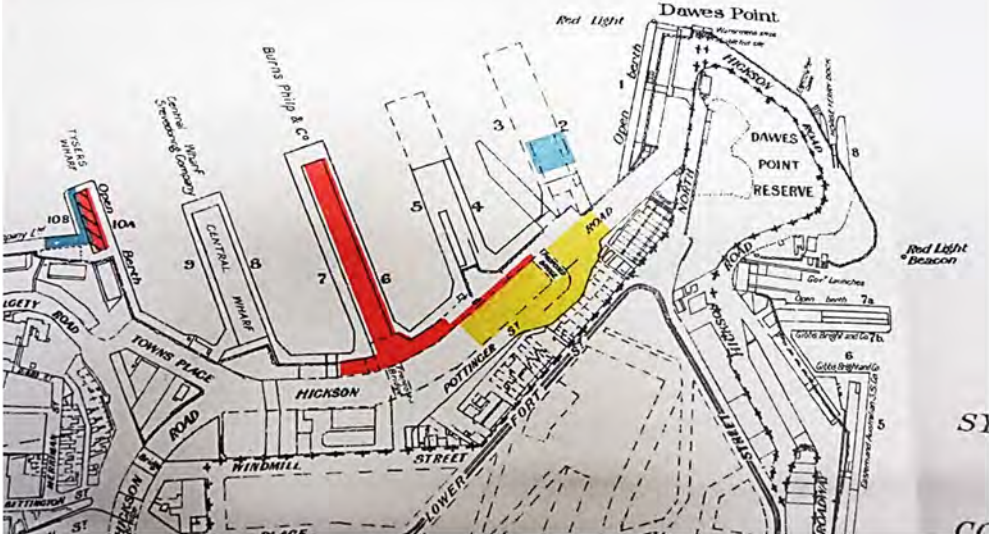
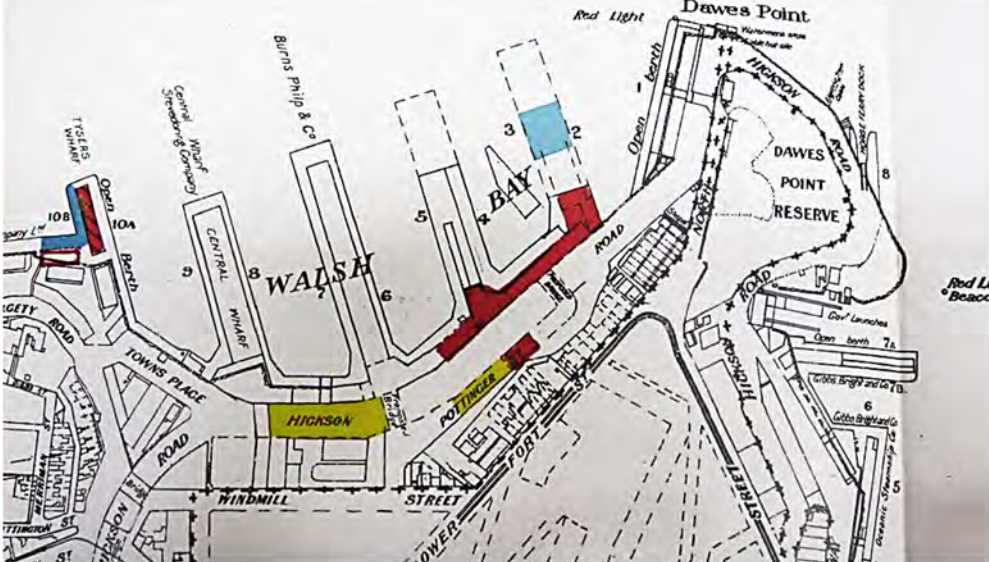
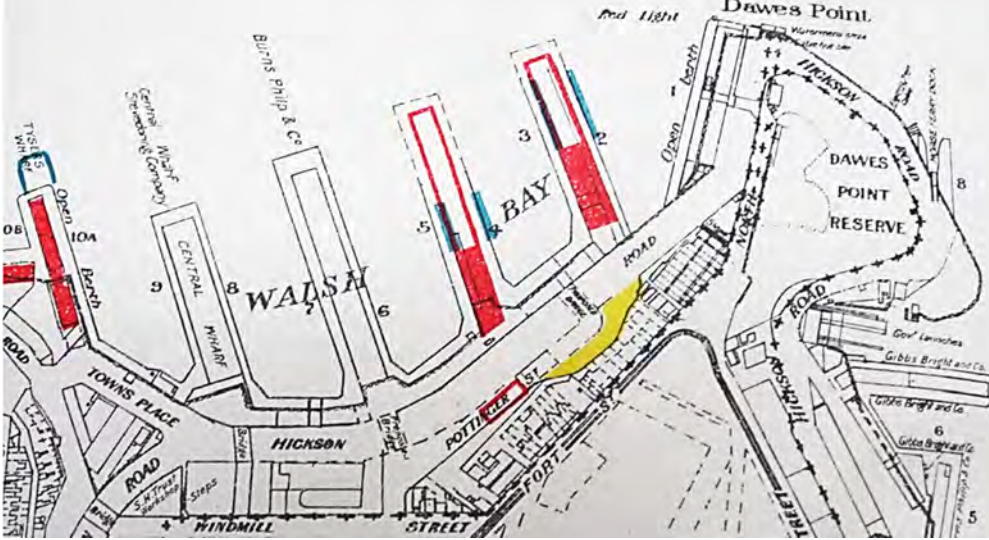
5. The Twentieth Century Landscape

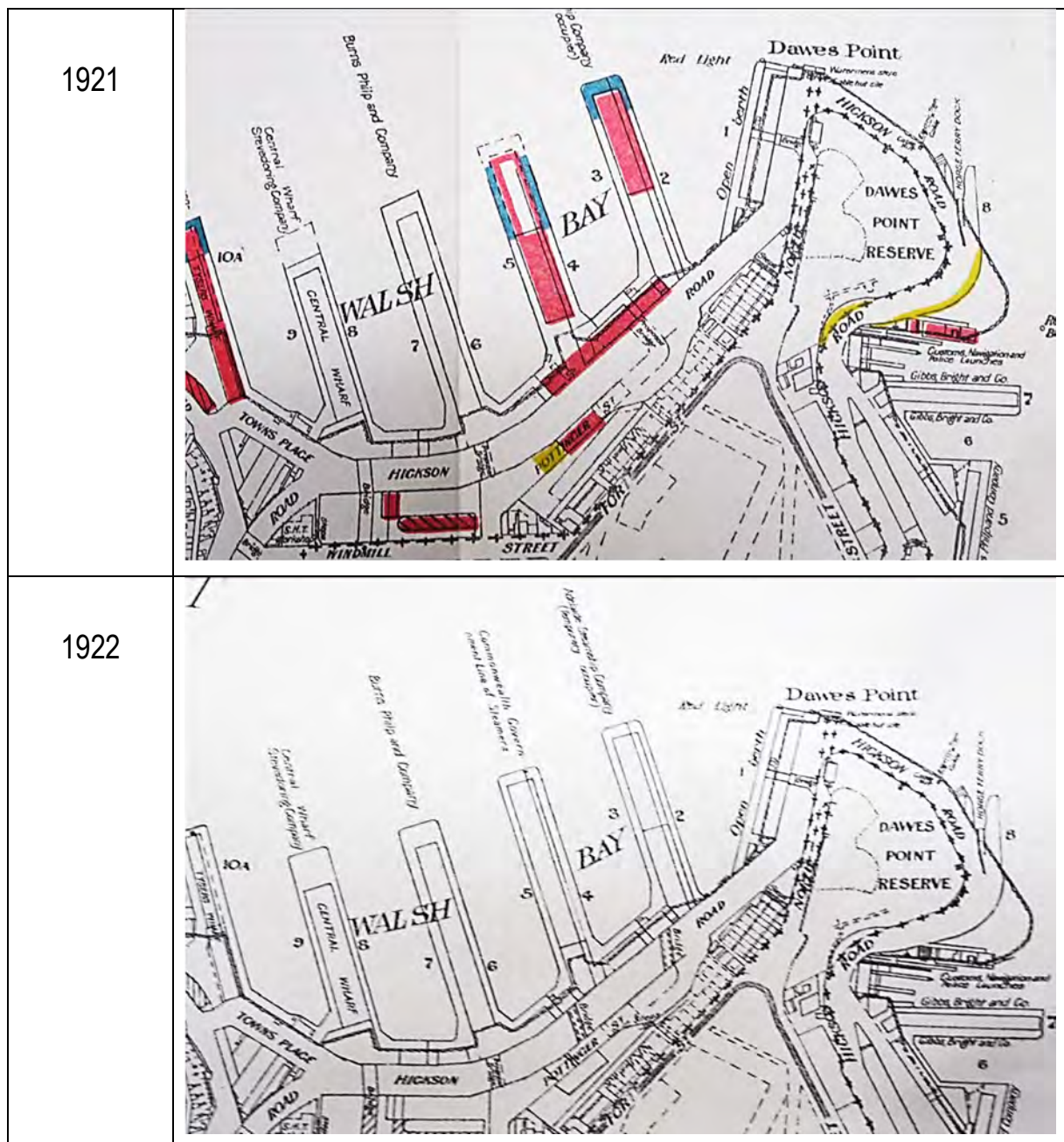
Date	Progress of Improvements Walsh Bay Waterfront (Source: Sydney Harbour Trust Annual Reports) SCHEDULE OF IMPROVEMENTS EFFECTED BY THE SYDNEY HARBOUR TRUST COMMISSIONERS <table> <tr> <td>Number of buildings erected</td><td>63</td><td>shown by red tint thus</td><td></td></tr> <tr> <td>do. do. altered</td><td>20</td><td>do. do. do</td><td></td></tr> <tr> <td>do. do. demolished</td><td>139</td><td></td><td></td></tr> <tr> <td>do. wharves or jetties erected</td><td>21</td><td>shown by blue tint thus</td><td></td></tr> <tr> <td>Length of new berthing space provided</td><td>7120 feet</td><td></td><td></td></tr> <tr> <td>Number of wharves or jetties altered</td><td>11</td><td></td><td></td></tr> <tr> <td>do. do. do. demolished</td><td>12</td><td></td><td></td></tr> <tr> <td>Length of rat proof retaining wall erected</td><td>4000 feet</td><td>shown by green band thus</td><td></td></tr> <tr> <td>do. new streets opened including approaches to wharves</td><td>3000 feet</td><td>shown by brown tint thus</td><td></td></tr> <tr> <td>Number of streets widened or re-formed</td><td>5</td><td>shown by yellow tint thus</td><td></td></tr> <tr> <td colspan="4">Boundary of area vested in the Sydney Harbour Trust Commissioners shown thus + + + + +</td></tr> <tr> <td colspan="4">Projected Works and Improvements shown by Red Lines.</td></tr> </table> 1906  1909 	Number of buildings erected	63	shown by red tint thus		do. do. altered	20	do. do. do		do. do. demolished	139			do. wharves or jetties erected	21	shown by blue tint thus		Length of new berthing space provided	7120 feet			Number of wharves or jetties altered	11			do. do. do. demolished	12			Length of rat proof retaining wall erected	4000 feet	shown by green band thus		do. new streets opened including approaches to wharves	3000 feet	shown by brown tint thus		Number of streets widened or re-formed	5	shown by yellow tint thus		Boundary of area vested in the Sydney Harbour Trust Commissioners shown thus + + + + +				Projected Works and Improvements shown by Red Lines.			
Number of buildings erected	63	shown by red tint thus																																															
do. do. altered	20	do. do. do																																															
do. do. demolished	139																																																
do. wharves or jetties erected	21	shown by blue tint thus																																															
Length of new berthing space provided	7120 feet																																																
Number of wharves or jetties altered	11																																																
do. do. do. demolished	12																																																
Length of rat proof retaining wall erected	4000 feet	shown by green band thus																																															
do. new streets opened including approaches to wharves	3000 feet	shown by brown tint thus																																															
Number of streets widened or re-formed	5	shown by yellow tint thus																																															
Boundary of area vested in the Sydney Harbour Trust Commissioners shown thus + + + + +																																																	
Projected Works and Improvements shown by Red Lines.																																																	

1913	SCHEDULE OF IMPROVEMENTS EFFECTED BY THE STONEY HARBOUR TRUST COMMISSIONERS BETWEEN 1st JULY 1912 & 30th JUNE 1913 <table> <tr> <td>Number of buildings erected</td><td>10</td><td>shown by red tint</td><td></td></tr> <tr> <td>do do altered</td><td>138</td><td>do do do halching</td><td></td></tr> <tr> <td>do do demolished</td><td>51</td><td></td><td></td></tr> <tr> <td>do wharves or jetties erected</td><td>3</td><td>shown by blue tint</td><td></td></tr> <tr> <td>Length of new berthing space provided</td><td>2832 feet</td><td></td><td></td></tr> <tr> <td>Number of wharves or jetties altered</td><td>7</td><td>shown by Blue tint & halching</td><td></td></tr> <tr> <td>do do do demolished</td><td>-</td><td></td><td></td></tr> <tr> <td>do Bridges erected</td><td>2</td><td>shown by green tint</td><td></td></tr> <tr> <td>Number of streets and roads</td><td>5</td><td>do yellow tint</td><td></td></tr> </table> The wharves and jetties proposed to be constructed are shown by broken lines thus Do do in course of construction are shown by Red hatching thus Boundary of area proposed to be appropriated for Railway purposes shown thus Boundary of area vested in the Sydney Harbour Trust Commissioners shown thus +++ <i>Engineer-in-Chief</i>		Number of buildings erected	10	shown by red tint		do do altered	138	do do do halching		do do demolished	51			do wharves or jetties erected	3	shown by blue tint		Length of new berthing space provided	2832 feet			Number of wharves or jetties altered	7	shown by Blue tint & halching		do do do demolished	-			do Bridges erected	2	shown by green tint		Number of streets and roads	5	do yellow tint	
Number of buildings erected	10	shown by red tint																																				
do do altered	138	do do do halching																																				
do do demolished	51																																					
do wharves or jetties erected	3	shown by blue tint																																				
Length of new berthing space provided	2832 feet																																					
Number of wharves or jetties altered	7	shown by Blue tint & halching																																				
do do do demolished	-																																					
do Bridges erected	2	shown by green tint																																				
Number of streets and roads	5	do yellow tint																																				
1913																																						
1914																																						

5. The Twentieth Century Landscape

1915	 This 1915 map shows the Dawes Point area with several industrial sites highlighted in color. The 'Central Wharf' is marked with a red hatched pattern. The 'Hickson' site is highlighted in yellow. The 'Pottinger' site is highlighted in blue. The 'Dawes Point Reserve' is shown to the east. Roads include 'Towns Place', 'Hickson Road', 'Pottinger Road', and 'Dawes Road'. A 'Red Light' is indicated near the reserve. The map also shows 'Towns Place', 'Hickson Road', 'Pottinger Road', and 'Dawes Road'.
1916	 This 1916 map shows the Dawes Point area with several industrial sites highlighted in color. The 'Central Wharf' is marked with a red hatched pattern. The 'Hickson' site is highlighted in yellow. The 'Pottinger' site is highlighted in blue. The 'Dawes Point Reserve' is shown to the east. Roads include 'Towns Place', 'Hickson Road', 'Pottinger Road', and 'Dawes Road'. A 'Red Light' is indicated near the reserve. The map also shows 'Towns Place', 'Hickson Road', 'Pottinger Road', and 'Dawes Road'.
1917	 This 1917 map shows the Dawes Point area with several industrial sites highlighted in color. The 'Central Wharf' is marked with a red hatched pattern. The 'Hickson' site is highlighted in yellow. The 'Pottinger' site is highlighted in blue. The 'Dawes Point Reserve' is shown to the east. Roads include 'Towns Place', 'Hickson Road', 'Pottinger Road', and 'Dawes Road'. A 'Red Light' is indicated near the reserve. The map also shows 'Towns Place', 'Hickson Road', 'Pottinger Road', and 'Dawes Road'.

1918	
1919	
1920	



5.9 Rebuilding and a New Vision

Following the completion of the Walsh Bay waterfront redevelopment little substantial work was carried out in the area until the 1970s. The replacement of the Sydney Harbour Trust with the Maritime Services Board in 1936 initiated some minor works. Between 1937 and 1940 most work was concerned with the remodelling programme for Wharf 4/5 and the upper level roadway undertaken by the MSB⁸³. In the post-war years to 1960s most works of the MSB in this area were associated with the construction of office block for the Board.

⁸³ Annual Report of the MSB: 1938 – 1940)

5. The Twentieth Century Landscape

By the 1960s Walsh Bay was considered to be a liability and consideration was given to redeveloping it but nothing eventuated at the time. In 1978 the MSB stated that the wharves were obsolete because of changes in cargo handling methods and demands. At this time the entire Walsh Bay waterfront was handling only 1/7 of the annual tonnage that had previously been managed at these wharves. The structures were failing and maintenance costs were high. A paper was prepared by the MSB to look at future options⁸⁴.

From the 1970s major revitalisation works have been undertaken on Pier One and Wharf 4/5 to serve as theatre space. Since that time Wharf 6/7 and Shore 8/9 have been redeveloped for residential purposes. The current project continues this vision of the former working area as a new cultural precinct for the city.



⁸⁴ MSB (1978); *Walsh Bay Port Jackson Planning for the Future Management of the Area*

6. The Archaeological Profile

6.1 The Site: Characteristics

The project area is entirely a twentieth century landscape largely created between 1909 and 1922 with alterations and additions from the 1930s and later. It encompasses the following elements:

Pier 2/3: a Federation style, two level wharf structure constructed between 1913 and 1922. It consists of a timber framed post and beam construction with a regular grid layout. It is clad in weatherboards, has a double-pitched roof and roof lantern. It has concrete aprons that wrap around the eastern western and northern sides. The shore-sheds have a brick facade



Wharf 4/5: a Federation style, two-level wharf structure similar in construction to Pier 2/3 and also constructed in the years 1913-1922. It has been altered in the 1980s to accommodate performance spaces. It has a brick façade to Hickson Road



The sea wall between the two wharves and behind them constructed from dressed sandstone constructed between 1918-1919

Sea wall east of Pier 2/3



The original timber bridges between the upper storeys of the piers and Pottinger Street have been replaced with steel bridges set on concrete plinths or steel piers in c. 1940

Bridge to Wharf 4/5



Bridge to Pier 2/3



A number of underground services have been installed below the current footpaths including sewerage, stormwater, power and telecommunications.

View east along Hickson Road showing light poles along the footpath; the installation would have required excavation



The undulating surface of the former natural topography can be seen in the levels of the sandstone retaining wall which has been constructed on top of the bedrock cliff face; this also demonstrates the steep incline of the original landform as well as the difference in levels of construction of housing at the top of the cliff and the waterfront improvements

View of terraces above Hickson Road, the retaining wall and levels of quarried bedrock at the base of the wall



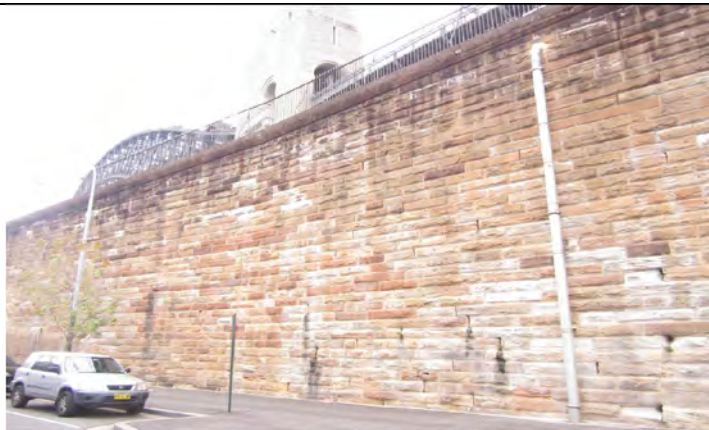
The extent to which the bedrock has been quarried to provide for the construction of Hickson Road may be seen at the base of the retaining wall on the southern side of that road and in Pottinger Street

Quarried sandstone bedrock at the junction of Hickson Road and New Pottinger Street



Hickson Road retains its original alignment and width with later twentieth century additions such as a roundabout. The massive stone retaining walls constructed by the SHT remain on the southern side

Sandstone retaining wall on the southern side of Hickson Road



New Pottinger Street is also preserved in its original form

View from the junction of New Pottinger Street with Hickson Road



6.2 Aboriginal Archaeology

6.2.1 Distribution of Identified Sites: Aboriginal Heritage Information Management System

The NSW Office of Environment and Heritage (OEH) maintains the Aboriginal Heritage Information Management System (AHIMS), a database of all recorded Aboriginal sites in NSW. A search of the AHIMS database was undertaken on 25 September 2016 for an area between -33.8739°, 151.1885° to -33.8494°, 151.2274° using a buffer of 1000 metres.

A total of ninety-three recorded Aboriginal sites were returned for the local region. No sites are recorded as existing or having existed within the project area. The following table provides a breakdown of the site types in the region surrounding Walsh Bay. The distribution of identified Aboriginal sites based on the AHIMS records is shown on the accompanying plan.

The most common type of sites recorded in the local area are shell middens followed by rock shelters containing shell middens. These are located primarily within foreshore environments; close to the shore and in locations where the topography is likely to provide rocky overhangs. Other common site

6. The Archaeological Profile

types that have been recorded in this area include concentrations of stone artefacts and rock engravings.

The following three AHIMS site are located within 300-400 metres of the study site; they are not within it.

AHIMS Site 45-6-0519 Moores Wharf – Artefact Concentration (Destroyed)

This site comprised a concentration of artefacts identified during excavations for the relocation of the former Moore's Wharf Bond Store in 1981. The warehouses under which the artefacts were located extended over the original shoreline. This area was not excavated or levelled as part of the Hickson Road construction program in the early 20th century.

AHIMS Site 45-6-0030 Dawes Point Park – Rock Engraving (Destroyed)

This site is recorded within the AHIMS based on historical records. An engraving of a large whale or possibly a shark was reported to have existed on a sandstone outcrop within the present day Dawes Point Park. It is no longer visible and it is assumed that the site was destroyed during the construction of the Sydney Harbour Bridge.

AHIMS Site 45-6-1939 MSB Tower – Rock Engraving (Destroyed)

This site is recorded within the AHIMS based on the oral testimony of a plant operator who observed engravings on a rock ledge below Merriman Street. These engravings were reportedly destroyed in 1970 during the construction of the Harbour Control Tower.

Site Type	Site Sub-Type	Quantity	Percentage of Sample	
Rock Shelter	Shelter with Art	6	6.5%	31.2%
	Shelter with Midden	18	19.4%	
	Shelter with Art and Middens	5	5.4%	
Midden		26		28%
Artefact Concentration (Open Camp Site)		11		11.8%
Rock Engraving		8		8.6%
Historic Place / Burial		3		3.2%
Potential Archaeological Deposit (PAD)		16		17.2%
Total		93		100%

Table 1 Recorded Aboriginal site in the vicinity of the subject site. (Source: AHIMS 25 September 2016)

Based on the patterning of recorded Aboriginal sites within the immediate region of the project area and the nature of those sites it can be determined that the most likely type of archaeological evidence that may have formed along the Walsh Bay foreshore would include shell middens, rock shelters and rock engravings.

6.2.2 Impacts

It is unlikely that any evidence for human occupation predating the stabilisation of the current sea levels would have existed within the subject site including former ground levels now submerged. Prior to 7000 years ago this site would have made an unlikely camping place, being almost on an exposed hill top and far from the closest source of fresh water in the river below. Subsequent erosion and decay of organic materials over the last 6000 years would likely have removed all trace of pre-mid Holocene occupation of the area.

Since the stabilisation of sea levels and the creation of Port Jackson, it is likely that the study site was used by Aboriginal people for fishing, camping, processing shellfish and other marine fauna. This is supported by contemporary European observations and evidence from similar environments. This type of occupation and use would have led to the creation of shell middens along this section of shoreline much the same as other, similar areas along Sydney Harbour foreshore. Other artefactual material such as stone tools and bones of marine and possibly terrestrial fauna would also likely to have been discarded amongst shell middens. This is supported by archaeological evidence from the foreshore zone around Sydney Harbour.

Shell middens along the foreshore zone are would have been highly susceptible to erosion from wind and waves. The rocky nature of this foreshore area would have resulted in relatively shallow pockets of sandy sediment, unsuitable for containing deep stratified archaeological deposits. Any shell middens or other artefactual deposits are likely to have built up directly on top of rock platforms making them highly susceptible to destruction.

The majority of the study area comprises the finger wharf structures which extend into the harbour. Only a small portion of the study site is located on the former foreshore. Unlike nearby AHIMS site 45-5-0519, the current study site comprises only a very small portion of the former foreshore zone and this is buried below reclamation fill behind the seawall.

The extensive development of wharves, buildings and reclamation work at Walsh Bay during the nineteenth century is likely to have significantly impacted if not entirely destroyed any Aboriginal archaeological deposits such as middens or artefact concentrations which may once have existed along this foreshore.

The demolition of the nineteenth century maritime landscape and particularly the excavation and levelling of the foreshore for the construction of Hickson Road between 1909 and 1920 would have further compounded the removal of any remaining pockets of natural soil profiles with the potential to contain Aboriginal archaeological material or natural ground levels.

6.2.3 The Potential Aboriginal Archaeological Resource: Cultural Significance

Based on the above assessment of likely Aboriginal sites, site taphonomy and historical impacts, it is considered highly unlikely that the project area would contain any Aboriginal archaeological deposits or objects. The study area is assessed to have no potential to contain Aboriginal sites or objects and for this reason it has no cultural value for its potential research values. The project area has not been assessed for Aboriginal cultural heritage values or significance.

6.3 Historical Archaeology

6.3.1 Identified Sites and Impacts

None of the reports or the statutory listings that have addressed the Walsh Bay precinct or the project area have specifically identified any historical archaeological sites. Several places have been the subject of archaeological investigation in the near vicinity including the bond store at Moore's Wharf, west of the project area⁸⁵ and various sites in Pottinger Street, Ferry Lane and Downshire Street⁸⁶. All have revealed intact archaeological deposits and features. These are sites that still retained buildings and other works above the archaeological profile that were either nineteenth or early twentieth century in origin and not subject to the massive land-forming and construction works associated with the redevelopment of Walsh Bay.

A number of excavations have been undertaken in parts of Hickson Road to the west of the project area and further east for example at 16 Hickson Road⁸⁷, near the ASN Co building in The Rocks⁸⁸, at 38 Hickson Road near the former gas works site⁸⁹. Several of these sites have uncovered archaeological features and deposits including earlier road surfaces and, in the case of the former AGL site, deeply cut features including a barrel drain and brick shaft from the industrial period of use. The point of difference with these portions of the road is that the extent of excavation required to create it was less than the extensive quarrying carried out at Walsh Bay.

The most relevant archaeological programme was a small area of monitoring adjoining the shore-sheds of Wharfs 6/7 and 8/9 at Walsh Bay. The work was undertaken in 2001 and no report has been found for the outcomes. However, notes were available for the work and conversations with the excavators reveal that the work uncovered metres of fill in an area that was between the sea-wall constructed by the Sydney Harbour Trust and the quarried bedrock of Hickson Road⁹⁰. The work, which was carried to an approximate depth of two metres, revealed the following features and profile:

- Fill deposited by the SHT programme of 1909-1920 encompassing sand, silt, sandstone blocks and sandstone rubble
- Miscellaneous nineteenth century artefacts including ceramics, glass and building materials
- Substantial numbers of jetty piles from older wharves buried in the fill
- Stone sea-wall, a concrete sea wall
- Services including pipes
- A brick furnace associated with wharf 8/9 as well as deposits and surfaces

The conclusions to be drawn from this are as follows:

- In areas where quarrying to create Hickson Road has been limited deeply cut features such as drains, wells or industrial features such as the shaft revealed at the former AGL site can survive

⁸⁵ Lampert and Truscott (1984); *Investigation of the Bond Store Moore's Wharf*

⁸⁶ R.J. Varman various 1999-2007

⁸⁷ R.J. Varman (2000); *16 Hickson Road The Rocks Archaeological Assessment and Test Excavation*

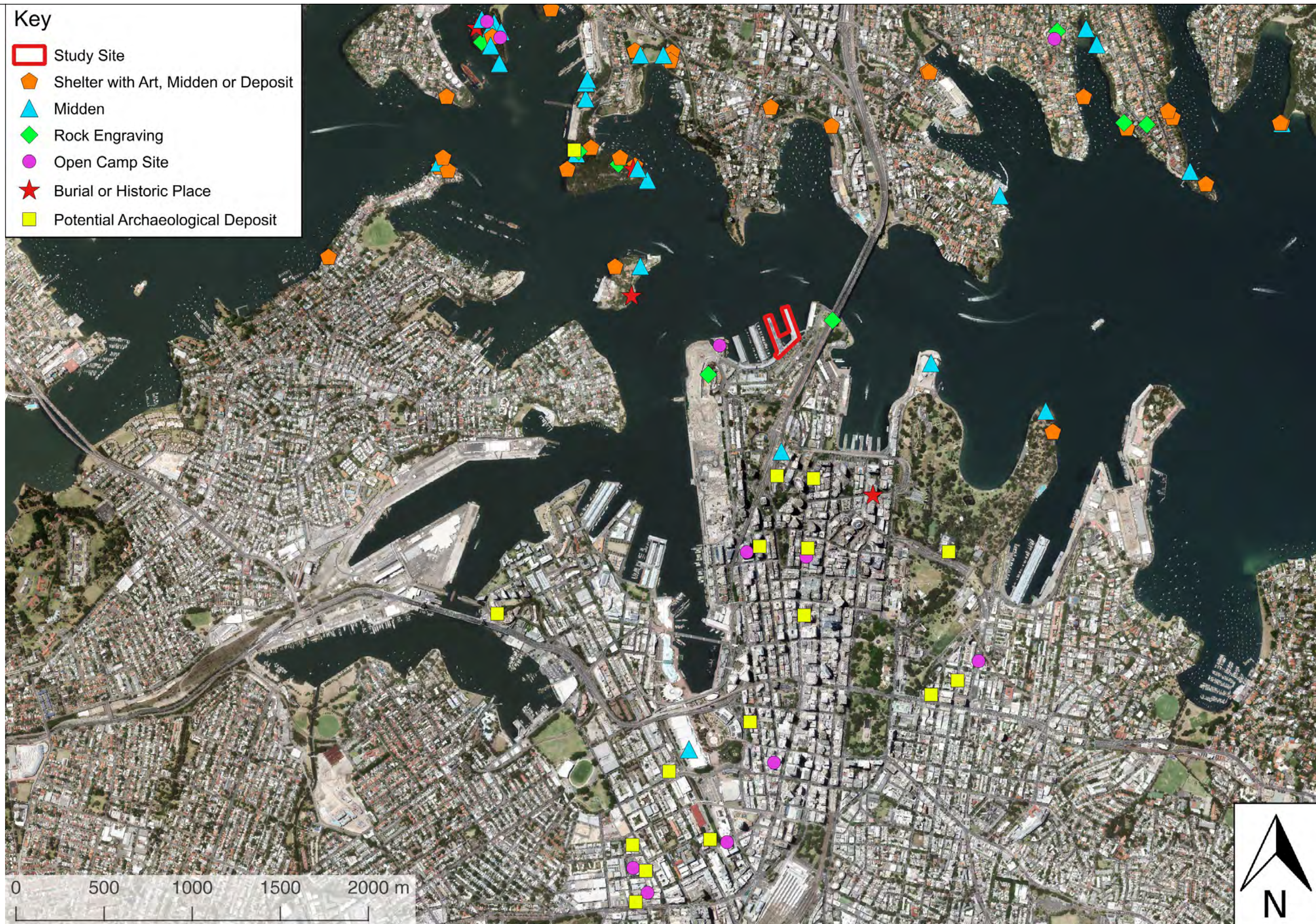
⁸⁸ CRM (1991); *Archaeological Excavations in Hickson Road at the ASN Co Building*

⁸⁹ A. Bickford (2003); *Archaeological Recording and Excavation Former AGL Site 38 Hickson Road Sydney*

⁹⁰ Pers com. Dr Ian Stuart and Dr Louise Stedding also *Monitoring Bulk Excavations at Walsh Bay Wharves 6/7 and 8/9 Field Notes* (L. Stedding)

Key

- Study Site
- ◆ Shelter with Art, Midden or Deposit
- ▲ Midden
- ◆ Rock Engraving
- Open Camp Site
- ★ Burial or Historic Place
- Potential Archaeological Deposit



- In areas of minimal excavation for the road more fragile elements such as older road surfaces can also survive
- In the areas of extensive and deep quarrying into bedrock it is unlikely that any intact archaeology will survive except very deeply cut features such as wells
- In the area between the sea-wall and the quarried ground surface elements of the nineteenth century landscape may survive buried in the fill that was used to rat-proof the new waterfront created between 1909 and 1922. These include jetty piles and sea-walls

6.3.2 Potential Archaeological Profile

It can be shown from archival sources that from the 1820s onwards the bay was progressively developed to accommodate privately owned wharves, jetties, slips, bond stores, sheds, sea walls, cottages and other buildings. At the same time the foreshore was slowly reclaimed and regularised to support this development. By the end of the nineteenth century the Walsh Bay precinct was extensively occupied and used for maritime activities after a second programme of rebuilding in the 1880s. The original foreshore had been subsumed by these developments.

The spread of plague traced to the wharves caused a massive programme of urban renewal designed to rid the waterfront of the unsanitary conditions which had given rise to the disease. The SHT removed all the buildings and other improvements and then massively redeveloped and reshaped the waterfront. There were three major influences on the archaeological profile of this area:

- more land was reclaimed meaning that any portion of the original shore or the improvements at the water's edge would be encompassed in material either used to reclaim the land or fill in the space between the old shore and the new edge of the reclaimed land defined by the sea walls constructed between 1910 and 1920
- all the existing wharves, shore buildings and other works were demolished
- extensive excavation into the bedrock was carried out to create Hickson Road.

The outcome of these combined works with respect to archaeology is that there are limited opportunities for the preservation of archaeological evidence. Essentially these are confined to the base of very deeply cut features such as wells that might have survived the excavation of the bedrock to create Hickson Road. Secondly, the band of fill behind the sea-walls and up to the excavated bedrock is the only area that may preserve more intact elements of the nineteenth century landscape.

This has been demonstrated to be the case at Wharf 6/7 and Wharf 8/9. If any archaeological evidence is preserved in the project area it is likely to encompass similar elements including piles and sea-walls and possibly fragmentary elements of different buildings or works. It is very unlikely that this area will preserve entire archaeological works or relics. The scope of evidence that could be preserved in this area could encompass any of the following categories:

- Environmental evidence including remnant but probably modified land-forms and soils representative of the interface of terrestrial and maritime environments
- Elements of nineteenth century sea-walls or property boundaries
- Fragmentary building components of the nineteenth century waterfront
- Piles from nineteenth century shore-wharves or finger wharves
- Demolition debris from several phases of building
- Soil and rubble removed from the Hickson Road excavation to fill in the gap between the old shoreline and the reclaimed land of c.1909-1922. This is likely to be of several metres depth to accommodate the difference in height between the falling ground of the nineteenth century topography and the regularised twentieth century terrain

- Artefact scatters that encompass domestic material as well as components of demolished structures. They are likely to represent waste materials accumulated during demolition and their random disposal in the fill.

Apart from the twentieth century fill it is highly unlikely that elements that may be preserved within this zone are complete; this would be a fragmentary resource of disparate elements.

6.3.3 Industrial Relics

The scope of the present evaluation did not encompass industrial relics or technology preserved within the wharves and sheds. In 2010 Godden Mackay Logan Heritage Consultants undertook a catalogue and cultural significance assessment of the moveable heritage that remained in Pier 2/3. The results of this investigation were as follows:

- A collection of industrial items is contained within the upper and lower levels of Pier 2/3 and on the apron
- The items are derived from the Walsh Bay Wharves Precinct as well as other sites within the precinct
- The items contribute to the state significance assessment of cultural value of the Walsh Bay wharves in varying levels ranging from exceptional to low
- Management recommendations varied according to the level of cultural significance with those of exceptional significance to be retained, reinstated and interpreted in place; those of high significance should also be retained, reinstated and interpreted; items of moderate significance should be considered for interpretation and retained on site or maintained at another location and some elements could be discarded; items of low significance to be managed as those for moderate significance but there were more opportunities for discarding elements
- A Walsh Bay Moveable Collection store should be established but not necessarily on site
- Items of exceptional significance include a bag chute, overhead sheaths for a goods hoist, electric overhead travelling crane, hydraulic ram
- Items of high significance include a hand jacked wool press, a keg trolley, hydraulic wool press, components of a jib crane, components of a bale chute
- Items of moderate significance include timber slat gates, wooden pile with iron casing, trolleys, bollard
- Items of low significance include metal gates and fencing from an unknown source, window frames, green pendant lamps
- 124 individual or groups of items were identified in the inventory
- Of the 124 inventory items five were assessed to be of exceptional significance
- Seventeen inventory items were of high significance
- Thirty-three inventory items were assessed to be of moderate significance
- Sixty-eight inventory items were of low significance
- One item was assessed to be of no significance (unused interpretation signage)

As part of the current project a new evaluation of this resource of moveable heritage is being prepared with recommendations for management.

6.3.4 Cultural Significance

Walsh Bay Wharves and their environs have been the subjects of several heritage evaluations⁹¹. The conclusions of these independent assessments may be summarised as follows:

- The Walsh Bay Wharves are of state cultural significance primarily because of their documentation and illustration of the importance of port trade at the beginning of the twentieth century and the role and vision of the Sydney Harbour Trust in its programme of waterfront renewal to meet the demands of this industry. The wharves have historical, technological, social, aesthetic and architectural values that derive from this association
- The wharves and sheds have a very distinctive character and valued aesthetic qualities
- The wharves and sheds encompass innovative technology and industrial practices of the early twentieth century
- Pier 2/3 is the only unaltered wharf and shore shed and thus evokes these qualities in the most intact way; this is also a rare example of its type
- Wharf 4/5 is a successful and highly regarded example of the adaptation of this type of structure for new purposes and was the first project of its type undertaken in Sydney
- The wharves and their environs provide evidence of the changing maritime landscape encompassing not only the twentieth century waterfront but also mid-later Victorian and Edwardian housing and Victorian period bond stores
- The topography of the area reflects the original environmental context although it is much adapted and altered
- The precinct has strong associations with the communities of Millers Point and Dawes Point and is greatly valued by them

6.3.4.1 Archaeological Significance: Contributory

An archaeological assessment determines whether a place is likely to or does encompass an archaeological resource (deposit, feature or assemblage) and whether that resource has cultural value as “relics”. Understanding the significance or values of those relics determines appropriate management options for this resource. In the publication *“Assessing Significance for Historical Archaeological Sites and Relics”* (Heritage Branch Department of Planning 2009) the discussion makes clear that apart from the contribution of physical evidence to the NSW Heritage Criterion E “Archaeological Research Potential” a comprehensive evaluation of the value of an archaeological resource must consider this evidence as a contributory element *“especially where sites were created as a result of a specific historic event or decision or when sites have been the actual location of particular incidents, events or occupancies”*.

In this case the value of any archaeological resource preserved within the project area must be evaluated in terms of its contribution to the overall cultural importance of this place; those state significant values outlined in Section 6.3.4.

The evaluation of the composition or profile of this historic period resource described in Section 6.3.2 of this report is that it is likely to encompass fragmented nineteenth century components. In this respect the potential archaeological resource has no contribution to make towards the identified cultural values of the place which are largely concerned with the twentieth century landscape.

⁹¹ A summary analysis of the several listings was included in Design 5 Architects (2014); *Walsh Bay Arts Precinct Heritage Impact Assessment*: 34-40

However, it can also be considered that this resource, apart from the intact domestic buildings above the precinct, is the only reference point to the nearly century-long tradition and maritime landscape of the nineteenth century. It could provide physical evidence of the continuity and importance of this place in the maritime role of Sydney. The twentieth century landscape owes much to limitations of the nineteenth century technology employed here and the environment created by it. It was repudiation of the limitations and inherent problems of that older environment that gave rise to the sweeping changes of the twentieth century.

Therefore, while the potential archaeological evidence of the historic period does not make a direct contribution to the principal identified cultural values of the Walsh Bay Wharves it could provide physical expressions of the older nineteenth century waterfront and the circumstances and technologies that were the impetus for the massive programme of waterfront renewal undertaken here in the first decades of the twentieth century. These nineteenth century elements, if found, would also be rare survivors; the scale of the SHT programme removed all visible evidence of the older landscape.

The possible presence of preserved environmental evidence of the nineteenth century and, possibly, of some aspects of the pre-settlement landscape would also make a contribution to the narrative of the relationship between the specific environmental conditions of this place and its subsequent development for historic period use.

6.3.4.2 Archaeological Significance: Specific (NSW Heritage Criterion E)

The specific importance of the cultural profile identified for the project area refers to the usual heritage criterion value used to address archaeological evidence; that is, Criterion E, “archaeological research potential”. This is defined as *“the ability of archaeological evidence through analysis and interpretation to provide information about a site that could not be derived from any other source and which contributes to the archaeological significance of that site and its relics”*. To address this value the Department of Planning Heritage Branch determined a number of questions that could be applied to the resource:

- *To which contexts is it anticipated that the site (resource) will yield important information?*

Any archaeological relics within the project area are likely to derive from the nineteenth century maritime development of this waterfront, however, they are likely to be fragmented and limited both in scope and location

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

If preserved the archaeological evidence could relate to several periods although an association with the period of redevelopment in the 1880s is the most likely source. It could derive from several different properties and owners.

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

The potential resource could be representative of nineteenth century technologies but within this context of Walsh Bay and the broader harbour context these may be rare depending on the nature of the evidence and its integrity. All relics are likely to be fragmented.

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

No

- *Is this type of site well –documented in the historic record?*

No, but the ability of the resource to document its context, use and association will be limited because it is likely to be fragmented

- *Has this type of site already been investigated with the results available?*

Several waterfront or former waterfront sites have been investigated and documented including the KENS site and Barangaroo and these places have yielded large and intact samples of the type of relics that may be partly preserved within a limited area of the Walsh Bay Wharves precinct.

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

No, its primary value would be the demonstration and link to the nineteenth century landscape but it is unlikely to be informative in respect of technology in the manner of other excavated sites.

6.3.4.3 Archaeological Significance: Associations (NSW Heritage Criteria A, B and D)

These criteria are concerned with the potential of archaeological evidence to provide links to specific people (individuals or groups) or historical events. The following questions have been posed as a means of evaluating the value of potential archaeological evidence in these aspects.

- *Will the site contain relics and remains which may illustrate a significant pattern in state or local history?*

The nineteenth century archaeological profile will provide evidence of an important place and industry but the integrity and scope of that resource is unlikely to do more than establish that continuity of tradition

- *Is the site widely recognised?*

Walsh Bay is a state significant and widely recognised place primarily for its twentieth century history and landscape; the potential archaeological profile is not well known

- *Does the site have symbolic value?*

Walsh Bay is representative of the importance of maritime trades and industry in the city and country but remnant archaeological evidence will only be able to make a small contribution to this value

- *Is there a community that values this place and identifies with it?*

Yes

- *Is the site associated with a specific person?*

The site has stronger associations with specific companies; the archaeological profile is unlikely to evoke these associations. It also has association with the Sydney Harbour Trust; this is evoked in the built environment.

- *Did a significant event take place at the site and can archaeological evidence help to define that event?*

The significance of the place is most closely associated with the development of an industry and its technology; the archaeological profile could provide some evidence of the nineteenth period of this development but this would be constrained by the integrity of the resource

6.3.4.4 Archaeological Significance: Aesthetic or Technical Values (NSW Heritage Criterion C)

In terms of archaeological evidence this criterion is understood to mean intact or legible remains or artefacts, aged or worked fabric that may allow the community to connect with the past through tangible physical evidence.

- *Does the site likely to have aesthetic values?*

There may be fragmentary evidence of the nineteenth century landscape which would have some appeal but it would be limited by the likely integrity of the resource

- *Is the site likely to embody distinctive characteristics?*

The fabric that may be preserved in the project area would be of identifiable nineteenth century origin which would contrast with the above ground twentieth century landscape

- *Is the site likely to embody a distinctive architecture, engineering style or layout?*

No, and it will be constrained by integrity

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

It is very unlikely to do so

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

Possibly, but again constrained by integrity.

6.3.5 Statement of Cultural Significance Historic Period Archaeology

The archaeological profile that may be preserved within the project area will be found in the area of reclamation between the excavated landform of Hickson Road and the sea-wall erected by the SHT between 1909 and 1922. This area may preserve environmental evidence of the pre-settlement period and of the nineteenth century as well as structural components that derive from the nineteenth century landscape, most likely from the later years associated with the redevelopment of the 1880s. It is also likely to contain randomly distributed artefacts probably accumulated by the demolition and cleansing programmes of the SHT and discarded in the large quantities of fill that encompasses rubble from the excavation of Hickson Road and, possibly, elements such as cut sandstone and other building debris from demolished structures. There is the potential for fragmented elements of nineteenth century buildings but the most intact components are likely to be jetty piles from nineteenth century wharves.

This resource does not directly relate to the evaluated cultural significance of the Walsh Bay Wharves precinct; this is largely concerned with the twentieth century landscape created between 1909 and 1922, the aesthetic and industrial values associated with it and the demonstration of the importance of the maritime industry to Sydney in this period. However, the archaeological resource is the only direct reference point and physical demonstration of the nearly century-long tradition and maritime landscape of the nineteenth century that preceded this redevelopment. It could provide evidence of the continuity and importance of this place in the maritime role of Sydney. It may be a physical expression of the older nineteenth century waterfront and the circumstances and technologies that were the impetus for the massive programme of waterfront renewal undertaken here in the first decades of the twentieth century. These nineteenth century elements, if found, would also be rare survivors; the scale of the SHT programme removed all visible evidence of the older landscape.

The possible presence of preserved environmental evidence of the nineteenth century and, perhaps, of some aspects of the pre-settlement landscape would also make a contribution to the narrative of the relationship between the specific environmental conditions of this place and its subsequent development for historic period use.

This is not the only place that evidence of the working waterfront of nineteenth century Sydney has been exposed and documented as an archaeological resource; extensive samples have been recorded elsewhere at Darling Harbour. The value of the potential archaeological resource is not in the specific evidence of technology or association with specific people or firms. Its principal cultural significance is the relationship between the nineteenth century buried landscape evoked by this resource and the visible twentieth century landscape at Walsh Bay Wharves. It describes the environment that gave rise to the programme of renewal and provides the context that explains the need for this work. On this basis as a contributor to the assessed cultural values of the Walsh Bay Wharves precinct the archaeological resource is also assessed to have state significance.

7. Management

7.1 The Project

The approved Stage 1 development application comprised:

- A new waterfront public square between Pier 2/3 and Wharf 4/5
- A series of new stairs and balconies on Pier 2/3 and Wharf 4/5 and modification to the roof of Pier 2/3
- The inclusion of new tenancy spaces in Pier 2/3 and Wharf 4/5 for arts and cultural activities
- The use of the precinct for arts festivals, events, pop-ups and associated uses including restaurants, café and bars

The WBAP Stage 2 State Significance Development Application seeks consent for construction works for the above to realise the WBAP project, as well as the proposed external alterations and additions to all of Wharf 4/5. It also seeks consent for new commercial and event uses in the precinct. Key aspects of the proposed development are described in the following sections.

7.1.1 Early Works

- Early construction works comprising infrastructure upgrades, demolition, hazmat removal and sub structure works.

7.1.2 Pier 2/3

- Internal alterations and reconfiguration to provide for the following:
 - Performance venues;
 - Rehearsal rooms, production workshops, back of house facilities and offices;
 - Function spaces, bars, cafes and foyer spaces extending onto external gantry platforms (balconies) providing breakout space for internal foyers and allowing views of outdoor performances;
 - Mezzanine spaces for offices and back of house facilities;
 - Upgrades to meet compliance with current BCA, DDA and fire codes;
 - New lifts and stairs;
 - Creation of new commercial tenancies and public toilets;
 - Removal of some storey posts and beams to facilitate internal reconfiguration and new uses; and
 - Retention of a large proportion of the ground floor in its existing 'raw' heritage state for events and festivals including Sydney Writers' Festival and Biennale including venue and commercial hire.

- External alterations and additions comprising:
 - New balconies and external stairs for fire egress;
 - New external lift for access;
 - Installation of glazing in existing cargo sliding door openings and other solid panels on the eastern, western and northern elevations to allow for views into and out of the building;
 - Roof penetrations within the central valley at the southern and northern end to accommodate new performance spaces and associated structural modifications including truss strengthening;
 - Installation of ESD elements, such as photovoltaic panels and seawater heat exchange systems; and
 - Raising of the external floor level on the eastern side by introducing a new raised deck and continuous set of stairs beyond the existing column line.

7.1.3 Wharf 4/5

- Internal alterations and reconfiguration to the Bangarra Dance Theatre (BDT) tenancy to provide for the following:
 - Upgrade of the main rehearsal and performance spaces;
 - Upgraded foyer and exhibition space along the eastern frontage;
 - Improved office space at mezzanine level including a new lift and stairs;
 - Provision of a function space at ground level of the northern end of wharf with associated kitchen facilities; and
 - New entrance and new glazing in bays of sliding cargo doors, opening up the foyer and main studio to the Pier 4 apron.
- Minor internal alterations and additions to the SDC tenancy comprising:
 - Reducing the existing workshop space to create a fifth dance studio; and
 - Upgrading office and reception areas.
- External alterations and additions to SDC tenancy comprising:
 - Raising of the timber wharf deck adjoining the SDC café and opening of the facade with new glazing to activate the waterfront square.
- Creation of new commercial tenancies and public toilets;
- External fabric alterations around the Sydney Theatre Company (STC) tenancy comprising:
 - Improved street entry at Hickson Road involving relocation of the stairs to allow for an improved landing and point of arrival to the STC;
 - New 'gantry' balconies, stairs and lifts mid-wharf and at the end of the wharf to provide for improved accessibility and compliance with fire engineering solutions;
 - Minor amendments to the existing façade to accommodate new entries and exits along the wharf;
 - Roof penetrations within the central valley at two locations to accommodate theatre and workshop spaces and associated structural modifications including truss strengthening; and

- Reinstallation of existing photovoltaic panels where applicable.

7.1.4 Wharf 4/5 Shore Sheds

- Internal alterations to reconfigure the choir spaces, including provision of a mezzanine for choir administration;
- Creation of new commercial tenancies at ground and mezzanine levels; and
- Provision of office space at ground level.

7.1.5 Public Domain

- Construction of a new waterfront square comprising a deck on piled structure;
- Shaded informal performance space on piled structure; and
- Changes to existing levels and steps down to facilitate access between the existing apron and new waterfront square.

7.2 Impact Assessment Indigenous Archaeology

Although the project area is located within a region in which a substantial number of Aboriginal archaeological sites or potential sites have been identified there are no specific sites recorded within the project area. It has been concluded that the project area may have once contained Aboriginal archaeological deposits, however due to the extensive levelling and remodelling of the natural foreshore environment any former Aboriginal sites are likely to have been entirely removed and destroyed by the early 20th century. The proposed works will have no impact on potential Aboriginal archaeological evidence.

7.3 Impact Assessment Historic Period Archaeology

The assessment presented in this report has concluded that in the zone between the present sea-wall and the original shoreline, reclaimed in the period 1909 -1922 there is the potential for a fragmented archaeological resource that derives from the nineteenth century maritime landscape (primarily jetty piles), debris from the demolition and clean-up carried out by the SHT in 1909-1922 and the reclamation of the same period. This zone of potential archaeological evidence is at the southern end of the shore-sheds. The area adjoining on Hickson Road is unlikely to have an extensive archaeological profile because of the level of quarrying required to construct that road and subsequent disturbance for the installation of services. At most it could contain the base of deeply excavated features such as wells.

The resource has been evaluated as state significant based on its contributory values. It provides physical evidence of the environment and circumstances that led to the massive programme of early twentieth century waterfront renewal. It also provides components that demonstrate the longevity and continuity of the maritime industry in this part of the city; the archaeological resource is the only direct physical evidence of nearly a century of trade and waterfront development.

There is some potential for the proposed works to disturb this resource; evidence from excavations carried out at Wharf 6/7 and Wharf 8/9 demonstrate that some components, primarily remnant jetty piles, are close to the surface of the rubble and wastes that fill this reclaimed land. Excavations for services are unlikely to remove or displace this structural evidence but may expose some components and will also displace artefacts and demolition debris contained in the fill. This work will not substantially effect the cultural value of this resource.

Most works will be concerned with the above ground structures and will have no impact on any in-ground archaeological resource. The only identified potential impacts are trenching associated with

utilities; the renewal of existing services or the possible provision of new connections as part of the infrastructure requirements in the early works package. These works would only disturb deposits to shallow depths and in discrete areas.

The principal impacts to sub-surface areas will be associated with the construction of the new public square. These works are more likely to impact maritime archaeological resources; this issue is addressed in a separate report.

7.4 Management

7.4.1 Aboriginal Archaeology

- Based on the above assessment it is concluded that no further archaeological investigation in regard to Aboriginal archaeological sites is necessary. It is recommended that the proponent proceed with the proposed works with caution.
- In the unlikely event that suspected Aboriginal objects are discovered during the course of the proposed works then work should stop in the area, the object is safeguarded and a suitably qualified archaeologist contacted to record the find prior to work continuing.
- The Office of Environment and Heritage (OEH) and the Metropolitan Local Aboriginal Land Council should also be contacted and informed of any finds as soon as possible and prior to work in that location continuing.

7.4.2 Historic Period Archaeology

- Excavation works for utilities should be monitored for the purpose of documenting the archaeological profile and any relics or features that are revealed by that work.
- This work will not require an excavation permit to be issued by the Heritage Division of OEH, however, a statement of methodology and research design should be prepared to define the scope of works and outcomes for monitoring programmes.
- The interpretation strategy currently being prepared for the precinct should address any evidence that may be recovered from monitoring works. Evidence from maritime archaeological work should also be featured in this strategy.
- Moveable heritage will be managed according to the current interpretation strategy

REFERENCES

- | | |
|--|--|
| City Plan (2011) | <i>Walsh Bay Pier 2/3 Moveable Heritage Use and Interpretation Plan</i> |
| Clive Lucas, Stapleton & Partners (1998) | <i>Walsh Bay Precinct Conservation Plan</i> |
| Paul Davies Pty Ltd (2007) | <i>Millers Point and Walsh Bay Heritage Review</i> |
| Design 5 Architects (2014) | <i>Walsh Bay Arts Precinct Heritage Impact Assessment</i> |
| Godden Mackay Logan (2010) | <i>Walsh Bay Pier 2/3 Moveable Heritage Catalogue and Significance Assessment</i> |
| Grahame Brooks & Associates (2007) | <i>Wharf 4/5 Walsh Bay Conservation Management Plan</i> |
| Higginbotham, Kass and Walker (1991) | <i>The Rocks and Millers Point Archaeological Management Plan</i> |
| Dana Mider (1991) | <i>The Rocks Millers Point Archaeological Management Plan</i> |
| NSW Government Architect (2012) | <i>Walsh Bay Master Plan</i> |
| Planning Workshop (1989) | <i>Walsh Bay Redevelopment Statement of Environmental Effects</i> |
| Sydney Harbour Trust | <i>Annual Reports 1900 – 1955</i> |
| Wendy Thorp (1988) | <i>Walsh Bay EIS Historical and Archaeological Assessment</i> |
| Wendy Thorp (1997) | <i>Archaeological Assessment Wharves 6/7 and 8/9 Walsh Bay</i> |
| Tropman and Tropman Pty Ltd (1999) | <i>Heritage Technology Walsh Bay Conservation Management Plan</i> |
| Tropman and Tropman (2000) | <i>Wharf 2/3 (Pier and Shore Shed) Walsh Bay Precinct Conservation Management Plan</i> |
| R.J. Varman (1998) | <i>Walsh Bay Redevelopment Archaeological Assessment and Investigation of Development of Pottinger Street and Adjacent Areas</i> |
| R.J. Varman (2007) | <i>Ferry Lane, Downshire and Pottinger Streets Walsh Bay Excavation Report</i> |

Appendix: Aboriginal Due Diligence Assessment

ABORIGINAL ARCHAEOLOGICAL ASSESSMENT

PIER 2/3 & WHARF 4/5
WALSH BAY

SYDNEY

SEPTEMBER 2016



CULTURAL RESOURCES MANAGEMENT
for
CLIVE LUCAS STAPLETON AND PARTNERS

CONTENTS

INTRODUCTION	3
Project Background	3
Environmental Planning and Assessment Act 1979	3
The Study Site.....	3
Limitations of the Assessment	5
ENVIRONMENTAL CONTEXT	6
Geology and Geomorphology	6
Fauna and Flora.....	6
ABORIGINAL OCCUPATION	9
Aboriginal Heritage Information Management System & Local Archaeological Context.....	11
HISTORICAL DEVELOPMENT	14
THE SITE	18
ABORIGINAL ARCHAEOLOGICAL POTENTIAL	22
IMPACT ASSESSMENT	23
CONCLUSIONS AND RECOMMENDATIONS	24

INTRODUCTION

Project Background

Arts NSW proposes to develop the Walsh Bay Arts Precinct by expanding the existing group of cultural institutions and attractions. This project is a staged State Significant Development (SSD), the stage one concept proposal was approved in May 2015. The current project comprises stage two of the development which proposes to construct a new public square between Pier 2/3 and Wharf 4/5. The work would also include the construction of new stairs, external lifts and balconies, modifications to the roofs of Pier 2/3 and Wharf 4/5. This project aims to create flexible and adaptable spaces in Pier 2/3 and Wharf 4/5 and enable use of the precinct for arts festivals, events and other uses such as restaurants, cafes and bars.

Cultural Resources Management (CRM) was engaged by Tropman & Tropman Architects on behalf of Tonkin Zulaikha Greer Architects to prepare an Archaeological Assessment and Management Plan in accordance with the Secretary's Environmental Assessment Requirements (Item 8) issued on 1 July 2016. The archaeological assessment and management plan is required to assess the likelihood of significant historical, maritime and aboriginal archaeology on the site, how this may be impacted by the project and measures to mitigate impacts.

Environmental Planning and Assessment Act 1979

Approval for the Walsh Bay Arts Precinct project is sought as a State Significant Development under Part 4 of the *Environmental Planning and Assessment Act 1979* (EPA Act).

The Walsh Bay Arts Precinct project is considered to be SSD under Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* as it is a cultural facility with a capital investment value of over \$30 million. Request for Secretary's Environment Assessment Requirements (SEARs) was submitted to the Department of Planning for Stage Two of the project in June 2016. The SEARs were issued on 1 July 2016.

This report has been prepared in response to the SEARs (Item 8) and forms part of the Environmental Impact Statement for the proposed Stage Two works.

As this project is SSD, the provisions of the *National Parks and Wildlife Act 1974* (NPW Act) relating to Aboriginal heritage do not apply.

The Study Site

The study site comprises Wharf 2/3 and Wharf 4/5 in Walsh Bay and includes the associated shore-sheds and waterway between the Pier and Wharf. The study site is located on Sydney Harbour and forms part of the Walsh Bay Wharves Precinct Conservation Area. The Conservation Area is adjacent to the Millers Point and Dawes Point Village Precinct and The Rocks Conservation Area.

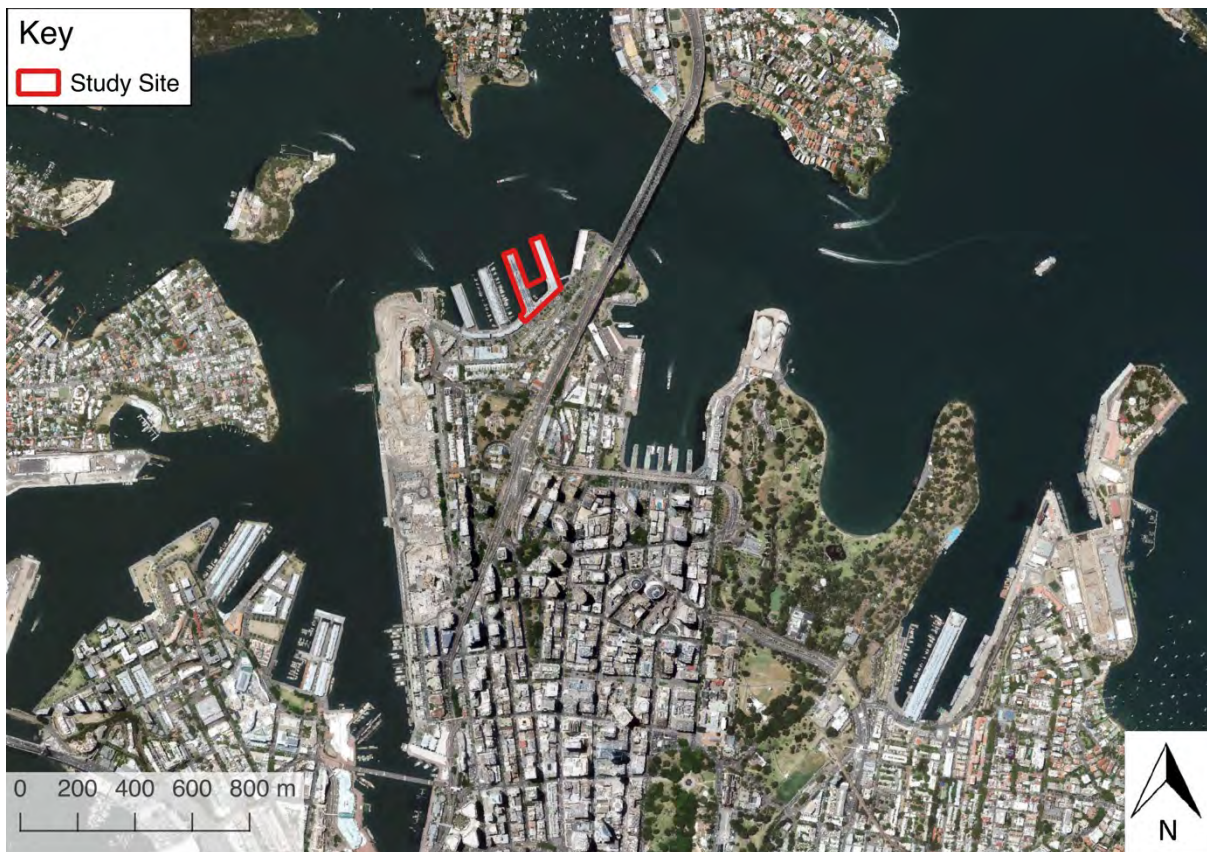


Figure 1 The study site in its broader context within the Sydney CBD and Sydney Harbour. (Source: Aerial imagery supplied by Land and Property Information with additions CRM)



Figure 2 Aerial photograph of the study site within the Walsh Bay Wharves Precinct. (Source: Aerial imagery supplied by Land and Property Information with additions CRM)

Limitations of the Assessment

This report provides an assessment of the Aboriginal archaeological potential of the study site. The assessment has been undertaken in accordance with current best practice guidelines which include the following:

- Department of Environment, Climate Change & Water, 2010, *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (September)*, Department of Environment, Climate Change and Water, Sydney.
- Department of Environment, Climate Change & Water, 2010, *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (September)*, Department of Environment, Climate Change and Water, Sydney.

CRM recognises that Aboriginal people are the primary determinants of the cultural significance of their heritage. Cultural heritage can include social, cultural, historic, aesthetic values as well as scientific values associated with archaeological sites. Cultural heritage is not restricted to tangible objects or sites it 'also includes peoples' memories, story-lines, ceremonies, language and 'ways of doing things' that continue to enrich local knowledge about the cultural landscape'.¹

CRM was not commissioned to undertake consultation with Aboriginal stakeholders regarding cultural heritage values for this project. This report does not include an assessment of Aboriginal cultural heritage values or significance; this is due to the assessed absence of material evidence. Consultation with relevant Aboriginal stakeholders could be undertaken to determine the Aboriginal cultural heritage values and significance of the study area.

¹ Department of Environment, Climate Change & Water, 2010, *Aboriginal cultural heritage requirements for proponents 2010 (April)*, Department of Environment, Climate Change & Water, Sydney.

ENVIRONMENTAL CONTEXT

Assessment of the Aboriginal archaeological potential of any area must incorporate an assessment of the environmental context of the area and the likely impacts this may have had on the way Aboriginal people may have used or occupied an area, archaeological site formation and subsequent taphonomic processes affecting site preservation.

Geology and Geomorphology

Prior to European settlement, reclamation and construction along Walsh Bay, the study area consisted of a steep, rocky sandstone headland overlooking the deep waters of Sydney Harbour. Early plans of the town of Sydney indicate that this area comprised of steep sided cliffs leading down to a narrow rocky foreshore (Figure 3 and Figure 4).

The Sydney soil landscape 1:100 000 sheet indicates that the area in the vicinity of the study site is overlain with Gympsea soils (Figure 5). These shallow, loose, sandy soils are formed by the weathering of the underlying sandstone bedrock and are highly prone to erosion.² The original natural foreshore is likely to have been rocky with small pockets of sandy beach deposits.

Fauna and Flora

The local area surrounding the study site once comprised a rich mosaic of ecological environments that were economically and culturally important to Aboriginal people. The subject site is located at the junction of a range of environments including the marine resources of the harbour, freshwater resources of local streams, stands of nearby mangroves and open eucalypt woodlands along the ridgelines.

The rocky foreshore would have likely been a rich source of shellfish such as Sydney rock oyster, cockles, whelks, turban shells and mussels for Aboriginal people.³ The headland may also have provided a launching point for fishing in the harbour using canoes as well as a processing location where the spoils of a fishing expedition were cooked, shared and consumed (Figure 7).

Early European descriptions of the area around Sydney Cove indicate that the ridgelines such as Bennelong Point and Millers Point were covered in open eucalypt woodland with a grassy understorey.⁴ The open understorey described in the historical records is suggestive of active fire

² Chapman, G. & C. Murphy, *Soil Landscapes of the Sydney 1:100 000 Sheet*, Sydney, Soil Conservation Service of NSW, 1989, viewed 29 September 2016 <<http://www.environment.nsw.gov.au/Salisapp/resources/spade/reports/9030gy.pdf>>

³ Attenbrow, V, 2010, *Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records*, Sydney, University of New South Wales Press.

⁴ Nagle, J., 1829, Jacob Nagle his book AD 19 May 1829, Canton, Stark County Ohio, 1775-1802; Collins, D, *An Account of the English Colony in New South Wales: With Remarks on the Dispositions, Customs, Manners &c. of the Native Inhabitants of that Country. To Which are Added, Some Particulars of New Zealand: Compiled by Permission, From the Mss. of Lieutenant Sydney, University of Sydney Library* Prepared from the print edition published by T. Cadell Jun. and W. Davies 1798, 1798, <http://purl.library.usyd.edu.au/setis/id/colacc1>; Attenbrow, V, 2010, *Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records*, Sydney, University of New South Wales Press.

stick management by Aboriginal people at the time. Indeed regular burning of the understorey was used by Aboriginal people to keep the forest clear and encourage new growth which was attractive to grazing animals such as kangaroos which could then be hunted.⁵ Other terrestrial animals such as possum were also important economically to Aboriginal people around Sydney both for their meat and thick fur which was used for making waist belts and cloaks.⁶

Stands of mangroves are also reported by historical observers around the Pyrmont peninsula and today's Cockle Bay.⁷ These additional ecological communities would have provided further economically important fauna and flora.



Figure 3 Detail of Milbert, Cloquet and Walker's 1802 Plan de la Ville de Sydney showing the steep rocky headlands of Millers Point and Walsh Bay. (Source: NLA <http://trove.nla.gov.au/version/209669543>)

⁵

⁶ Attenbrow, V, 2010, Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records, Sydney, University of New South Wales Press.

⁷ Attenbrow, V, 2010, Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records, Sydney, University of New South Wales Press.



Figure 4 Map of the local underlying geology of the study site. (Source: NSW Geological Survey with CRM additions)



Figure 5 Map of the soil landscapes in the vicinity of the study site. (Source: Soil Landscapes of the Sydney 1:100,000 Sheet, NSW Department of Environment, Climate Change and Water with CRM additions)

ABORIGINAL OCCUPATION

Archaeological evidence from the Sydney Basin has demonstrated that Aboriginal people have lived in this region for at least 30,000 years.⁸ Over that time the environment and landscape of the Basin has changed dramatically. During the peak of the last Ice Age approximately 20,000 years ago, sea levels would have been up to 110m to 130m lower than the present day, the coast line would have lain approximately 15km kilometres further east.⁹ At this time Sydney Harbour would have consisted of a steep-sided river valley. Sea levels began to rise following the end of the last glacial maximum forming estuaries in formerly freshwater rivers and streams. During the current Holocene period sea levels fluctuated, finally stabilising to their current levels around 7000 years ago.¹⁰

Aboriginal people who lived along the shores of Port Jackson near Sydney Cove) in 1788 were known as the Cadigal people. The Cadigal were some of the first tribes of the Sydney Basin to be encountered by European settlers and a substantial body of historical information regarding their appearance, subsistence and cultural practices was recorded by the colonisers during the first years of contact.¹¹

Ethnographic recording of the Aboriginal people in the Sydney Basin indicates that the area from the coast into the Blue Mountains was occupied by the Darug. This group was made up of a number of smaller familial clans or tribes. Historical records suggest there was a linguistic and cultural divide between the Darug people of the coastal areas such as the Cadigal and those who lived in the hinterland of the Cumberland Plain and Blue Mountains.¹² The Darug are neighboured by the Darkinjung and Guringai to the north, the Gundungurra and Tharawal to the south and the Wuradjuri to the east.¹³

Coastal Darug peoples relied heavily on marine resources for their subsistence, fishing for fish and other marine fauna from bark canoes using nets, spears and lines as well as harvesting shellfish along the shoreline.¹⁴ Records indicate that Aboriginal women made use of nets and fishing line while men fished using pronged and barbed spears. Large shell middens were reported to have lined the Port Jackson foreshore in the late 1700s however many were destroyed through burning of the shell by the settlers to produce lime for mortar.¹⁵

Aboriginal people who lived around Port Jackson had strong links to neighbouring tribes who shared common spiritual and cultural belief systems. These links were further cemented through marriage ties, trade and complex kinship systems. Aboriginal people from far reaching areas would regularly

⁸ JMcDCHM, Archaeological Salvage Excavation of Site RTA-G1, 109-113 George Street, Parramatta, NSW. report prepared for Landcom, October 2005.

⁹ Attenbrow, V, 2010, Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records, Sydney, University of New South Wales Press.

¹⁰ Attenbrow, V, 2010, Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records, Sydney, University of New South Wales Press.

¹¹ Attenbrow, V, 2010, Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records, Sydney, University of New South Wales Press.

¹² Kohen, J, 1995 'Mapping Aboriginal Linguistic and Clan Boundaries in the Sydney Region' in *The Globe*, pp. 32–39; Kohen, J., 1993, *The Dharug and Their Neighbours. The traditional Aboriginal Owners of the Sydney Region*, Darug Link in association with Blacktown & District Historical Society, Sydney.

¹³ Tindale, N.B., 1974, *Aboriginal tribes of Australia: their terrain, environmental controls, distribution, limits, and proper names*, University of California Press, Berkeley; Attenbrow, V, 2010, Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records, Sydney, University of New South Wales Press.

¹⁴ Attenbrow, V, 2010, Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records, Sydney, University of New South Wales Press.

¹⁵ Attenbrow, V, 2010, Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records, Sydney, University of New South Wales Press.

come together to undertake ceremony such as initiation ceremonies, arrange marriages, share information and trade materials such as basalt from the Blue Mountains, shell for tool production, spears, possum skins, ochre, etc.¹⁶ One such ceremony is recorded by Collins in the present day Royal Botanic Garden and Domains. In 1795, Collins observed a 'Yurong' initiation ceremony in which local and Guringai boys were initiated in a multi-day ceremony on the peninsula at Farm Cove.¹⁷ The strong links and shared cultural beliefs between the Aboriginal people of the wider Sydney region is also reflected in the rock art of the region which shares a common graphic vocabulary both in style and motif production.¹⁸



Figure 6 'View of Part of Sydney' circa 1804 showing Aboriginal people fishing in a traditional way within the European landscape (Source: National Library of Australia <http://nla.gov.au/nla.obj-135178991>)

¹⁶ Threkeld, LE, 1974, *Australian reminiscences and papers of L.E. Threkeld, missionary to the Aborigines 1824-1859*, WN Gunson (ed), Australian Institute of Aboriginal Studies, Canberra.

¹⁷ Collins, D, 1798, *An Account of the English Colony in New South Wales: With Remarks on the Dispositions, Customs, Manners &c. of the Native Inhabitants of that Country. To Which are Added, Some Particulars of New Zealand: Compiled by Permission, From the Mss. of Lieutenant Sydney*, University of Sydney Library prepared from the print edition published by T. Cadell Jun. and W. Davies, <<http://purl.library.usyd.edu.au/setis/id/colacc1>>.

¹⁸ McDonald, J, *Dreamtime Superhighway: Sydney Basin Rock Art and Prehistoric Information Exchange*, Terra Australis 27, Canberra, Australian University Press, 2008.



Figure 7 Engraving of Aboriginal people fishing in Port Jackson circa 1824 Lesueur, C.A, 'Nouvelle-Hollande, Nouvelle Galles du Sud, grottes, chasse et peche des sauvages du Port-Jackson', National Library of Australia <<http://nla.gov.au/nla.obj-135686453>>.

Aboriginal Heritage Information Management System & Local Archaeological Context

The NSW Office of Environment and Heritage (OEH) maintains the Aboriginal Heritage Information Management System (AHIMS), a database of all recorded Aboriginal sites in NSW.

A search of the AHIMS database was undertaken on 25 September 2016 for an area between -33.8739o, 151.1885o to -33.8494o, 151.2274o using a buffer of 1000 meters.

A total of 93 recorded Aboriginal sites were returned for the local region. No sites are recorded as existing or having existed within the subject site itself. Table 1 provides a breakdown of the site types in the local region surrounding Walsh Bay.

The most common type of site recorded in the local area are shell middens followed by rock shelters containing shell middens. These are located primarily within foreshore environments; close to the shore and in locations where the topography is likely to provide rocky overhangs. Other common site types which have been recorded in this area include concentrations of stone artefacts and rock engravings.

The following three AHIMS site fall within 400m of the study site; none are with the project area.

AHIMS Site 45-6-0519 Moores Wharf – Artefact Concentration (Destroyed)

This site comprised a concentration of artefacts identified during excavations for the relocation of the former Moore's Wharf Bond Store in 1981. The warehouses under which the artefacts were located

extended onto the original shoreline. This area was not excavated or levelled as part of the Hickson Road construction program in the early 20th century.

AHIMS Site 45-6-0030 Dawes Point Park – Rock Engraving (Destroyed)

This site is recorded on AHIMS based on historical records. An engraving of a large whale or possible shark was reported to have existed on a sandstone outcrop within the present day Dawes Point Park. It is no longer visible and it is assumed that the site was destroyed during the construction of the Sydney Harbour Bridge.

AHIMS Site 45-6-1939 MSB Tower – Rock Engraving (Destroyed)

This site is recorded on AHIMS based on oral testimony of a plant operator who observed engravings on a rock ledge below Merriman Street. These engravings were reportedly destroyed in 1970 during the construction of the Harbour Control Tower.

Based on the patterning of recorded Aboriginal sites within the study area the most likely sites which may have formed along the Walsh Bay foreshore include shell middens, rock shelters and rock engravings.

Table 1 Recorded Aboriginal site in the vicinity of the subject site. (Source: AHIMS 25 September 2016)

Site Type	Site Sub-Type	Quantity	Percentage of Sample
Rock Shelter	Shelter with Art	6	6.5%
	Shelter with Midden	18	19.4%
	Shelter with Art and Middens	5	5.4%
Midden		26	28%
Artefact Concentration (Open Camp Site)		11	11.8%
Rock Engraving		8	8.6%
Historic Place / Burial		3	3.2%
Potential Archaeological Deposit (PAD)		16	17.2%
Total		93	100%

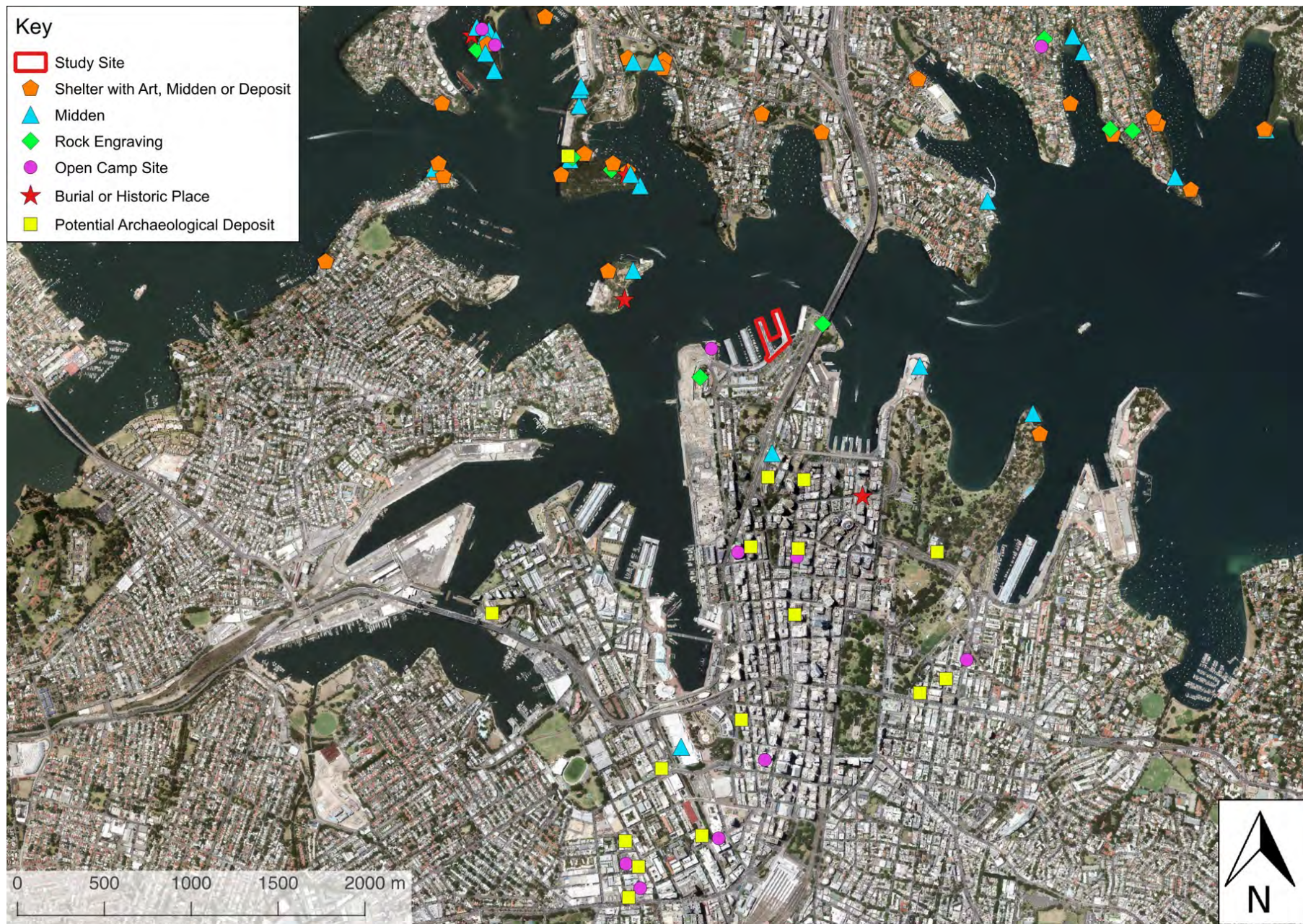


Figure 8 Map of known Aboriginal sites in the vicinity of the subject site recorded on AHIMS. (Source: Aerial imagery Land and Property Information with additions by CRM)

HISTORICAL DEVELOPMENT

During the earliest years of the NSW colony the steep, rocky terrain of Walsh Bay and Millers Point discouraged extensive development along the foreshore in these locations. Milbert, Cloquet and Walker's 1802 plan of the town of Sydney shows only a few structures along the foreshore with much more dense development occurring along the Observatory Hill ridgeline (Figure 3). Some early uses of the foreshore include anchorage for whaling vessels and a battery at Dawes Point to the east.¹⁹

By the 1830s access to the waterfront with a relatively deep water anchorage proved attractive to merchants in the growing economy. Long-side wharves with formalised sea walls were developed along with the street layout which can still be seen today (Figure 9). Development was largely piecemeal, undertaken with little overall planning. Hotels such as the Lord Nelson (est. 1834) and the Hero of Waterloo (est. 1844) appeared to cater for this new commercial area of the town. The wharves at Walsh Bay can be seen as an extension of the contemporary development of the commercial wharves along the harbour foreshore which ran from Darling Harbour to Circular Quay. By the mid-nineteenth century a series of finger wharves had been constructed along Walsh Bay (Figure 10). Hydraulic equipment was employed at Walsh Bay in order to overcome the steep change in elevation between the foreshore and the roads on the hillslope.²⁰

Terrace houses were constructed along Lower Fort Street during the 1840s to accommodate the families of the wharf merchants.²¹ The construction of the road system, warehouses and terraces would have involved the cutting and terracing of the steep rocky headland.

Originally home to the wealthy merchants who owned the wharves, during the late nineteenth century the terrace houses along Lower Fort Street and surrounds became the home of the working class population. By the late nineteenth century, these homes along their neighbours in The Rocks were crowded and decrepit. Photographs from the late nineteenth century show densely packed residential and commercial buildings behind the finger wharves along the foreshore (Figure 11).

In 1900 an outbreak of bubonic plague swept through Sydney, reportedly having started amongst the sub-standard houses of the Rocks and Millers Point. This led to a wide scale government resumption of the area and extensive plans were drawn up for the rejuvenation and modernization of the city of Sydney, in particular its commercial districts.²²

The Sydney Harbour Trust was tasked with the redevelopment of the commercial wharves. A 1909 plan for the redevelopment shows the proposed construction of a large roadway joining The Rocks foreshore with Darling Harbour and the construction of new, bigger finger wharves (Figure 13). This plan involved demolition of many of the waterfront buildings as well as the existing nineteenth century finger wharves. This plan was approved and today's Hickson Road was excavated along the foreshore, quarrying out the headland to create a near vertical cliff face off Lower Fort Street. Pottinger Street and the extant sandstone retaining wall above was constructed during this period of redevelopment.

¹⁹ Office of Environment and Heritage, Walsh Bay Wharves Precinct Heritage Inventory Sheet, viewed 26 September 2016 <<http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5045067>>

²⁰ Office of Environment and Heritage, Walsh Bay Wharves Precinct Heritage Inventory Sheet, viewed 26 September 2016 <<http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5045067>>

²¹ Office of Environment and Heritage, Walsh Bay Wharves Precinct Heritage Inventory Sheet, viewed 26 September 2016 <<http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5045067>>

²²

Construction of the new finger wharves was completed between 1909 and 1922. The new wharves were larger and could be serviced on two levels, taking advantage of the topography by using a series of timber bridges from Lower Fort Street. These bridges have since been upgraded but remain in use today.

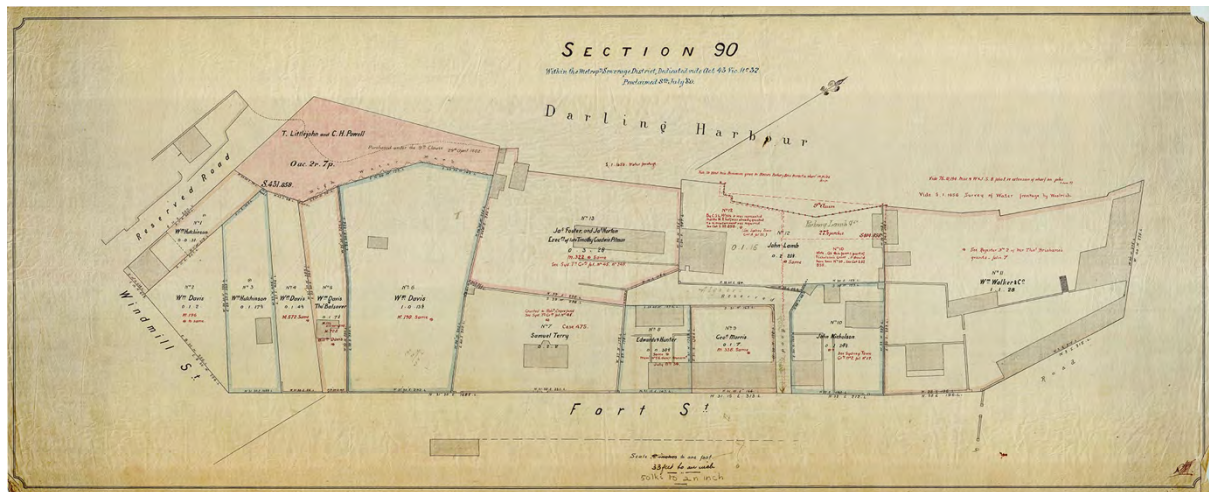


Figure 9 1833 plan of study site showing early warehouses and long-side wharves. (Source: City of Sydney Archives, City Section Survey Plans- Section 90)

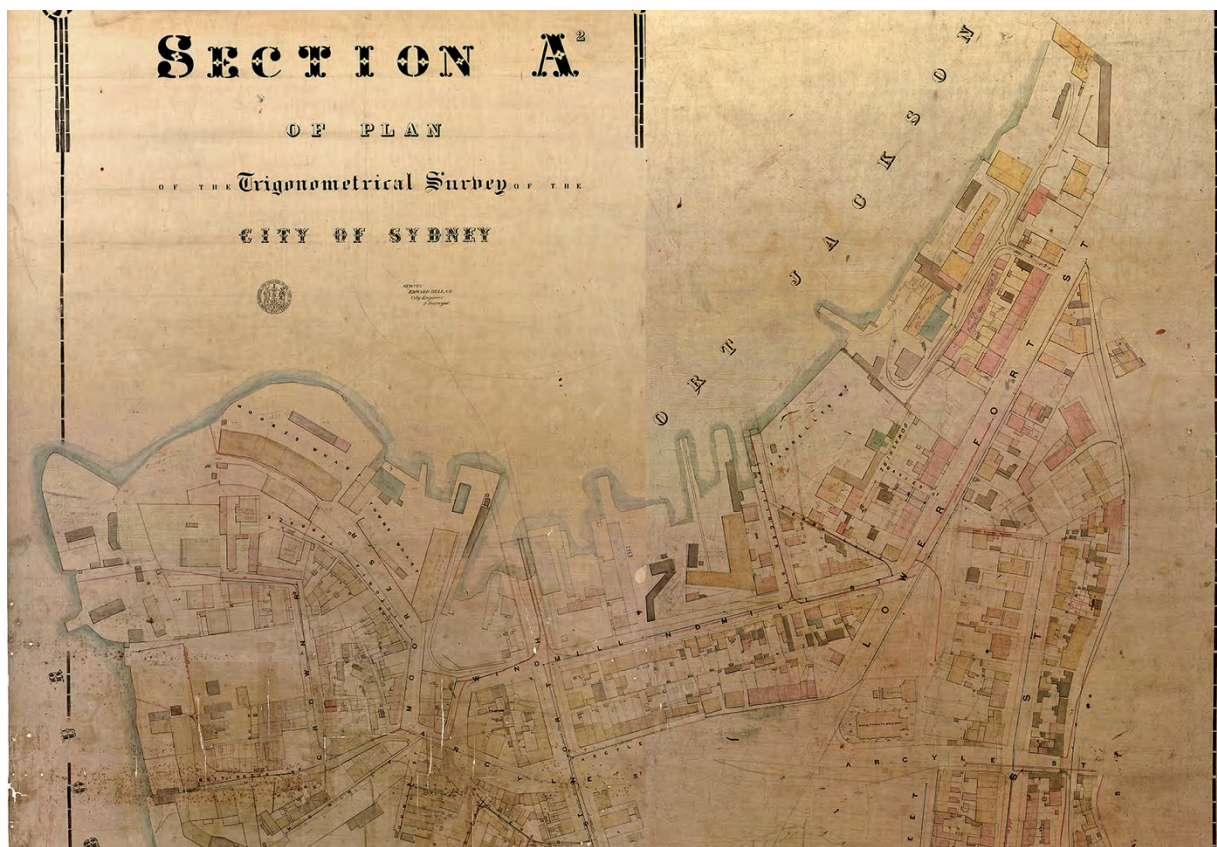


Figure 10 1865 Trigonometrical Survey of Sydney, Sections A1 and A2 showing Walsh Bay Wharves in the late nineteenth century. (Source: City of Sydney Archives)



Figure 11 Walsh Bay Wharves circa 1900 before the Sydney Harbour Trust redevelopment. (Source: City of Sydney Archives, Graeme Andrews 'Working Harbour' Collection: 77950)



Figure 12 Padbury's Wharf c. 1873 showing the long-side wharves, sea wall and levelled foreshore of Walsh Bay. (Source: Pier 2/3 heritage interpretation panels, 2016).

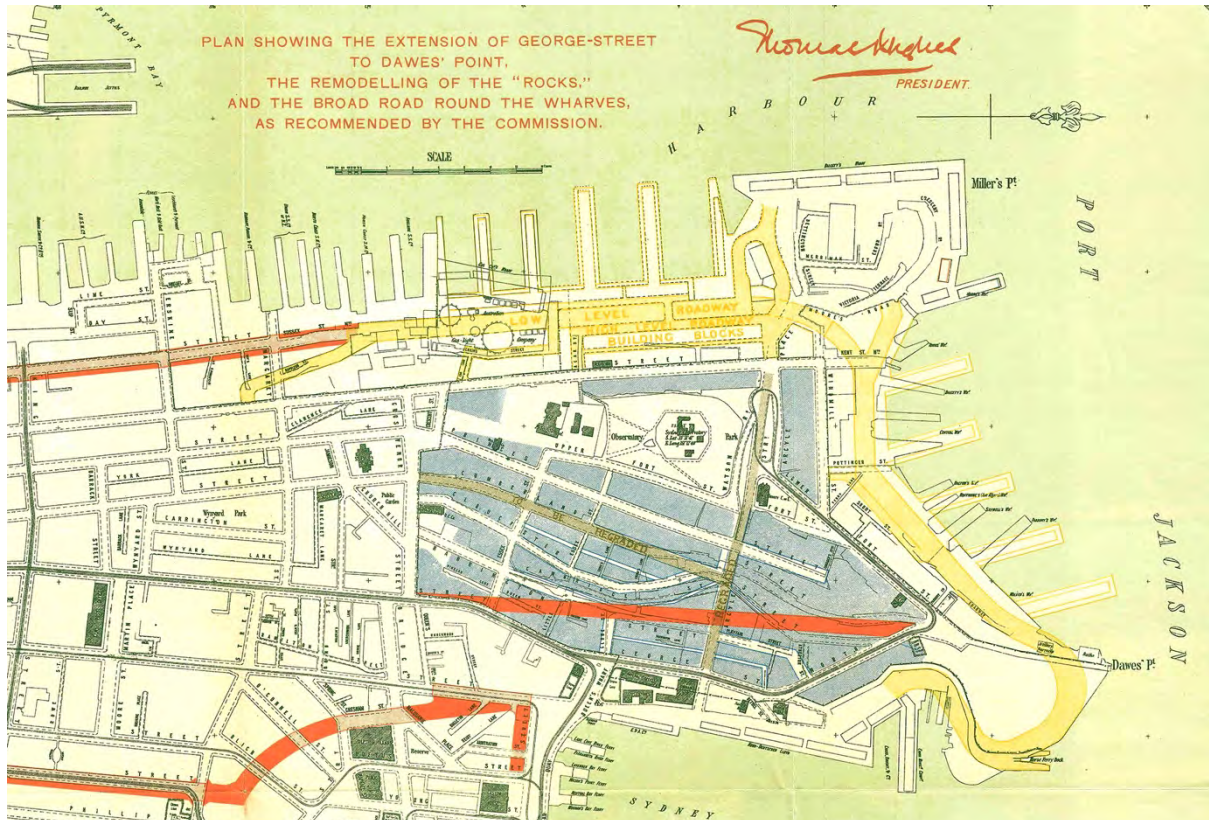


Figure 13 Detail of a 1909 plan from the 'Royal Commission for the Improvement of the City of Sydney and its Suburbs.' Note the yellow proposed road is today's Hickson Road. (Source: City of Sydney Archives, Historical Atlas of Sydney <http://www.photosau.com.au/cosmaps/scripts/home.asp>)



Figure 14 Looking southwest along Hickson Road opposite Walsh Bay Wharves 6-9, circa 1933 (Source: City of Sydney Archives SRC6609)

THE SITE

A site visit was undertaken on 30 September 2016 by CRM archaeologist Erin Mein. Due to the urban nature of the study site it was not expected that Aboriginal sites would be observed. However the following site conditions were noted.

- Pier 2/3 and Wharf 4/5 are constructed on a series of timber piles and comprise of a two storey warehouse structures (Figure 15 to Figure 18).
- The current sea wall comprises a dressed sandstone wall running below the wharves (Figure 19).
- The quarried sandstone bedrock can be seen on the south side of Hickson Road and Pottinger Street (Figure 20).
- The undulating surface of the former natural topography can be seen in the undulating levels of the sandstone retaining wall which has been constructed on top of the bedrock cliff face (Figure 20).
- The original timber bridges between the upper storeys of the piers and Pottinger Street have been replaced with steel bridges set on concrete plinths or steel piers (Figure 22).
- A number of underground services have been installed below the current footpaths including sewerage, stormwater and telecommunications.

Inspection of the study site confirms the historical evidence for quarrying the sandstone headland and levelling of the Walsh Bay foreshore. This is evident at the base of the retaining wall on Hickson Road



Figure 15 Western side of Wharf 4/5. (Source: CRM 2016)



Figure 16 Eastern side of Pier 2/3. (Source: CRM 2016)

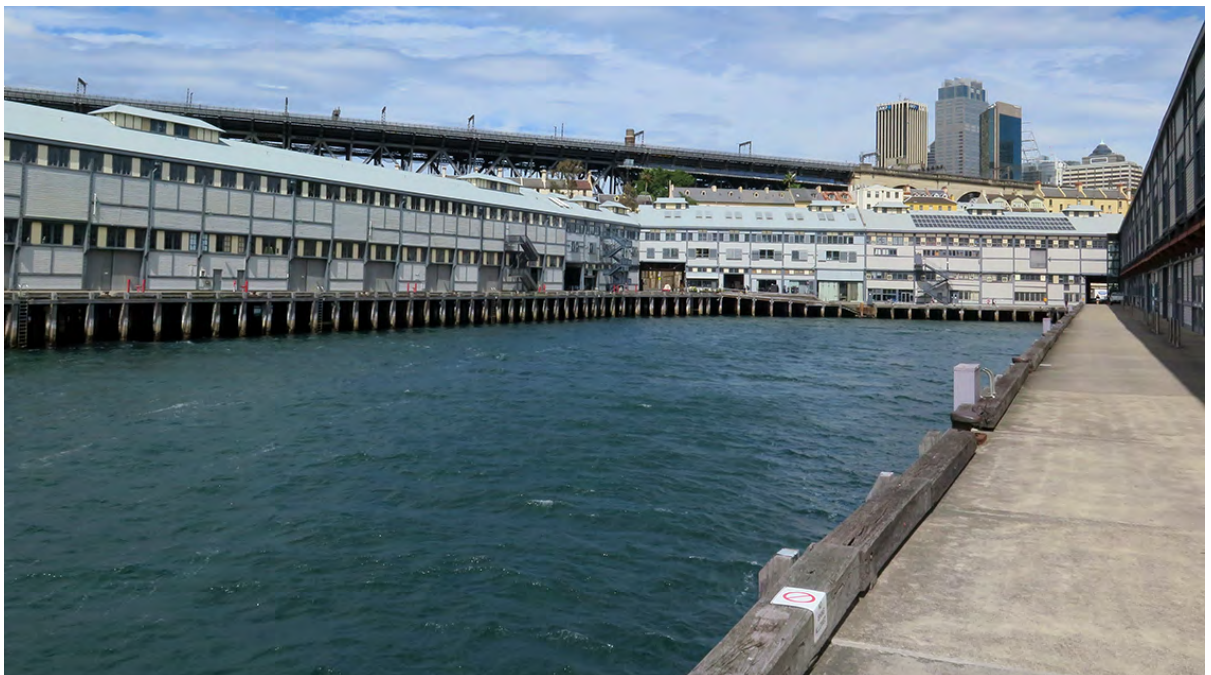


Figure 17 View of area between Pier 2/3 and Wharf 4/5 and shoresheds (Source: CRM 2016)

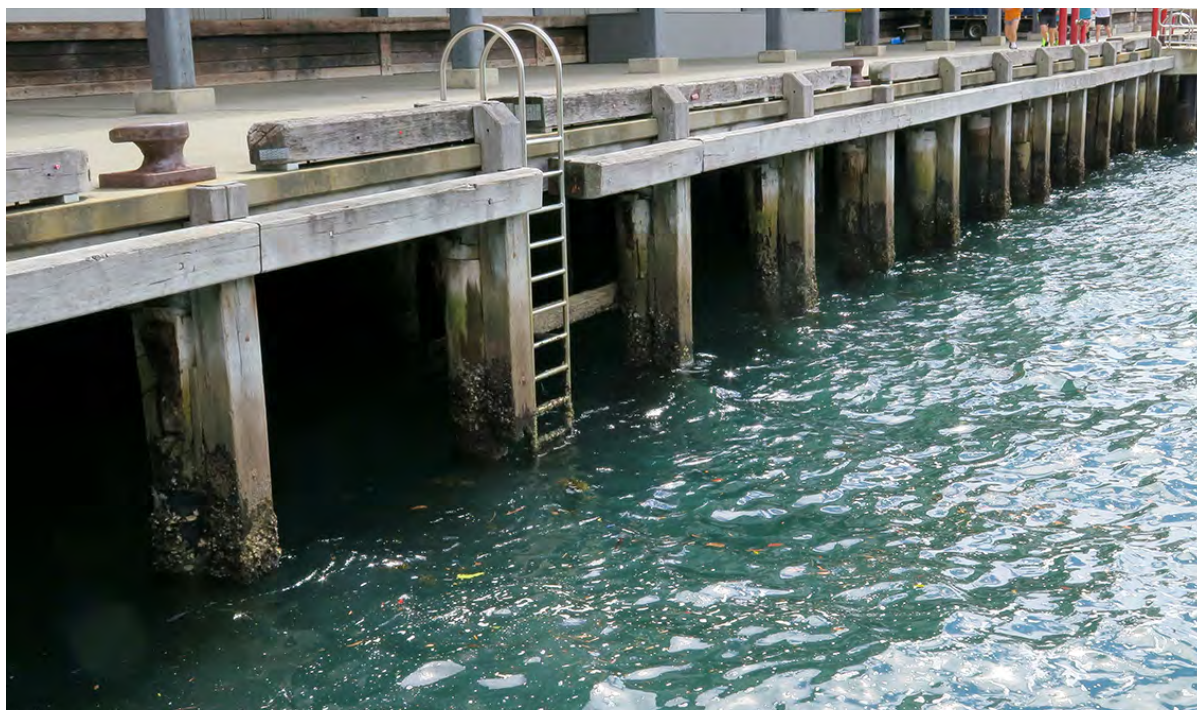


Figure 18 Photograph of timber piers of Pier 2/3. (Source: CRM 2016)

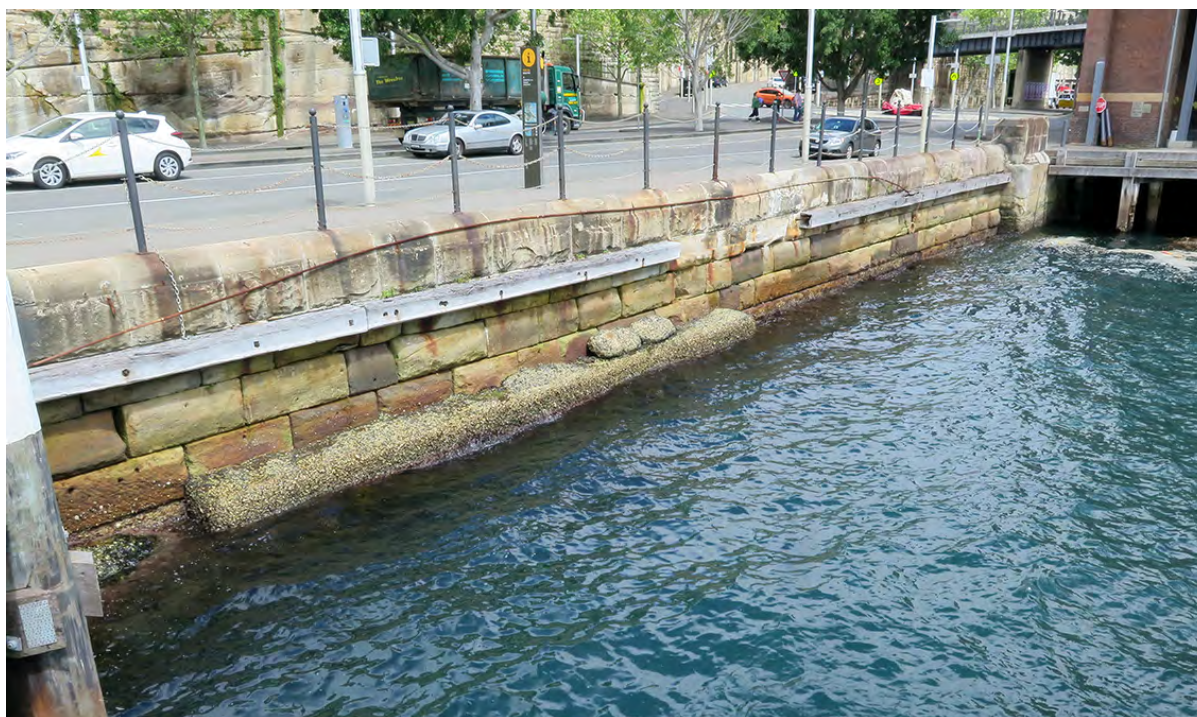


Figure 19 Section of sandstone sea wall to east of Pier 2/3. (Source: CRM 2016)

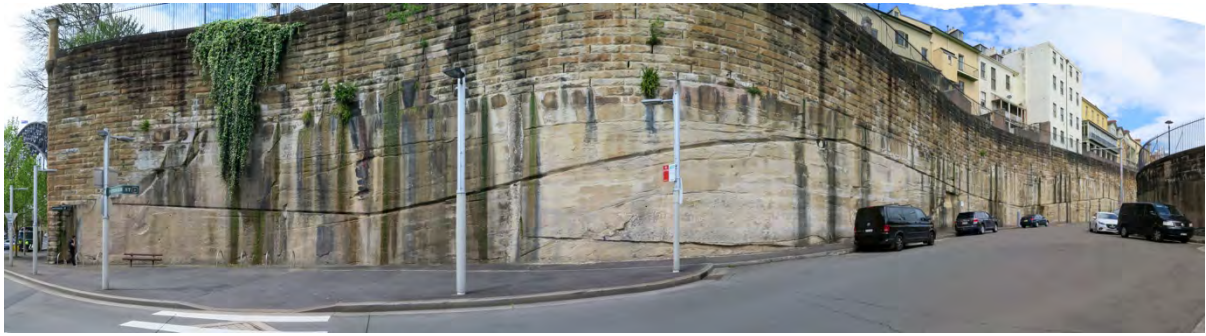


Figure 20 Panorama of quarried sandstone cliff face looking up Pottinger Street. (Source: CRM 2016)



Figure 21 View east along Hickson Road. (Source: CRM 2016)



Figure 22 Bridges from Pottinger Street to Wharf 4/5 (L) and Pier 2/3 (R). (Source: CRM 2016)

ABORIGINAL ARCHAEOLOGICAL POTENTIAL

It is unlikely that any evidence for human occupation predating the stabilisation of the current sea levels would have existed within the subject site including within the areas currently submerged. Prior to 7000 years ago this site would have made an unlikely camping place, being almost on a hill top, far from fresh water in the Parramatta River below. Subsequent erosion and decay of organic materials over the last 6000 years would likely have removed all trace of pre-mid Holocene occupation of the area.

Since the stabilisation of sea levels and the creation of Port Jackson, it is likely that the study site was used by Aboriginal people for fishing, camping, processing shellfish and other marine fauna. It is likely that shell middens would have built up along this section of shoreline much the same as other areas along Sydney Harbour foreshore. Other artefactual material such as stone tools and bones of marine and possibly terrestrial fauna would also likely to have been discarded amongst shell middens. This is supported by archaeological evidence from the foreshore zone around Sydney Harbour.

Shell middens along the foreshore zone are would have been highly susceptible to erosion from wind and waves. The rocky nature of this foreshore area would have resulted in relatively shallow pockets of sandy sediment, unsuitable for containing deep stratified archaeological deposits. Any shell middens or other artefactual deposits are likely to have built up directly on top of rock platforms making them highly susceptible to destruction.

The majority of the study area comprises the finger wharf structures which extend into the harbour. Only a small portion of the study site is located on the foreshore itself. Development of the original wharves at Walsh Bay during the nineteenth century is likely to have significantly impacted if not entirely destroyed any Aboriginal archaeological deposits such as middens or artefact concentrations which may once have existed along this foreshore. Unlike nearby AHIMS site 45-5-0519, the current study site comprises only a very small portion of the foreshore which likely partially consists of reclamation fill behind the seawall.

The demolition of the nineteenth century wharf and excavation and levelling of the foreshore for the construction of Hickson Road would have further compounded the removal of any remaining pockets of natural soil profiles with the potential to contain Aboriginal archaeological material.

Based on the above assessment of likely Aboriginal sites, site taphonomy and historical impacts, it is considered highly unlikely that the study site would contain any Aboriginal archaeological deposits or objects. The study area is considered to have no potential to contain Aboriginal sites or objects.

IMPACT ASSESSMENT

Stage Two of the proposed Walsh Bay Arts Precinct redevelopment involves:

- Construction of a new public square in the space between Pier 2/3 and Wharf 4/5.
- Construction of new stairs, external lifts and balconies.
- Modifications to the roofs of Pier 2/3 and Wharf 4/5.

There are no sites recorded on AHIMS that exist within the study site. It is considered highly unlikely that the study site would contain any Aboriginal sites or objects due to the degree of historical impacts which have already occurred along the foreshore in this location. Further the majority of works will occur off the foreshore, over the waterway in the space between Pier 2/3 and Wharf 4/5.

Therefore the proposed works are unlikely to have an impact on Aboriginal archaeological sites or objects.

CONCLUSIONS AND RECOMMENDATIONS

This report has assessed the environmental, archaeological and historical context of the study site; Pier 2/3 and Wharf 4/5. Based on the assessment presented in this report it is concluded that the study site may have once contained Aboriginal archaeological deposits. However, due to the extensive levelling and remodelling of the natural foreshore environment that has occurred northwest of the sandstone cliff faces on Hickson Road, any former Aboriginal sites are likely to have been entirely removed and destroyed by the early 20th century. The study site is considered to have no potential to contain Aboriginal sites or objects.

The proposed stage two works consist primarily of alterations to the existing wharf structures and construction of an open public square across the waterway between Pier 2/3 and Wharf 4/5. The proposed stage two works would likely have no impact on Aboriginal archaeological deposits or objects.

On the basis of this assessment it is concluded that no further archaeological investigation in regard to Aboriginal archaeological sites is necessary. It is recommended that the proponent proceed with the proposed works with caution.

In the highly unlikely event that suspected Aboriginal objects are discovered during the course of the proposed works then measures should be enacted to preserve and protect the object while a suitably qualified archaeologist is contacted to record the find prior to work continuing. The Office of Environment and Heritage (OEH) and the Metropolitan Local Aboriginal Land Council should also be contacted and informed of any finds as soon as possible and prior to work in that location continuing.