







GOAT ISLAND

Conservation Management Plan

Volume 4
Appendices

June 2011

NSW National Parks and Wildlife Service
The Office of Environment and Heritage NSW

NSW GOVERNMENT
Office of Environment & Heritage
NSW National Parks & Wildlife Service

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APPENDICES CONTENTS

APPENDIX 1: HISTORICAL OVERLAY MAPS

HISTORICAL OVERLAY MAPS

The following illustrations, figures A1-2 to A1-10, are a compilation of the various plans available of development of the island with information from dated photographs presented as a series of overlays. As the plans are a compilation from a large number of drawings they have been drawn with a 'best fit' as not all plans overlay accurately.

For convenience the drawings are separated into the north and south parts of the island. Each drawing shows all known structures and features that have existed on the island and the buildings and features that were extant at the date that the drawing represents are coloured. The shoreline is also shown coloured on each drawing, as it existed at that time.

The date for each plan relates to a reliably dated historic plan. These roughly correlate with historic phases of the island but are not exact.

The plan dates are c1840, 1901-02, 1929, 1950 and 2007. The 1901-02 plans include details from a very clear 1891 plan of the island (details includes as Figures 2.13 and 2.14 in Volume 1) which shows the footprints and some of the uses of the structures on the Island at that time.

A number of buildings and features cannot be accurately dated but are allocated as accurately as possible to each phase.

The extant buildings at the plan dates are shown in orange, with extant wharves in brown. Extant shorelines at the plan dates are shown in blue.

These plans are provided to demonstrate the layering of the site, the location of earlier site elements in relation to the current structures, site features and landforms and to illustrate how the edges of the island and the shoreline development have evolved.

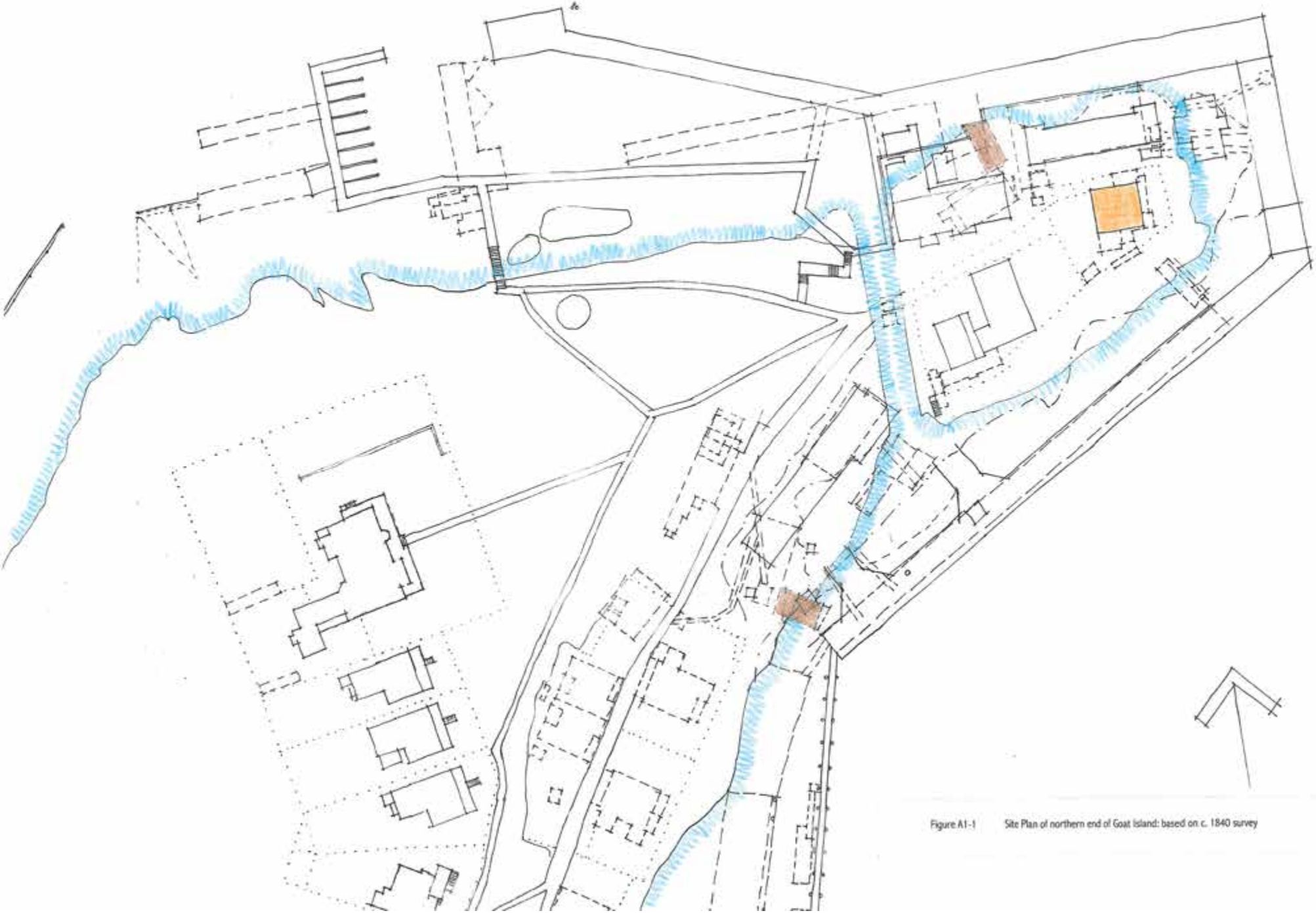


Figure A1-1 Site Plan of northern end of Goat Island: based on c. 1840 survey

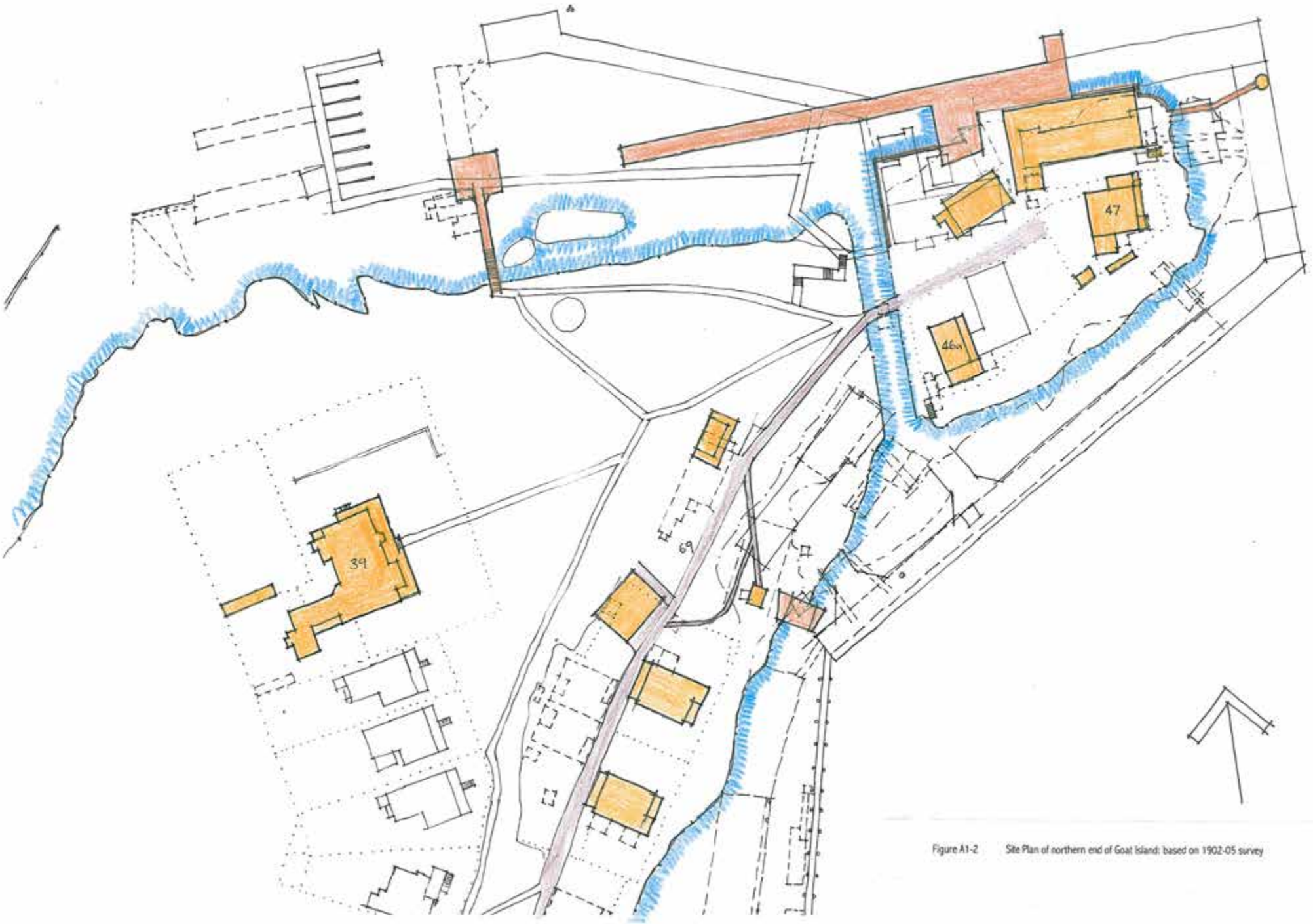


Figure A1-2 Site Plan of northern end of Goat Island: based on 1902-05 survey

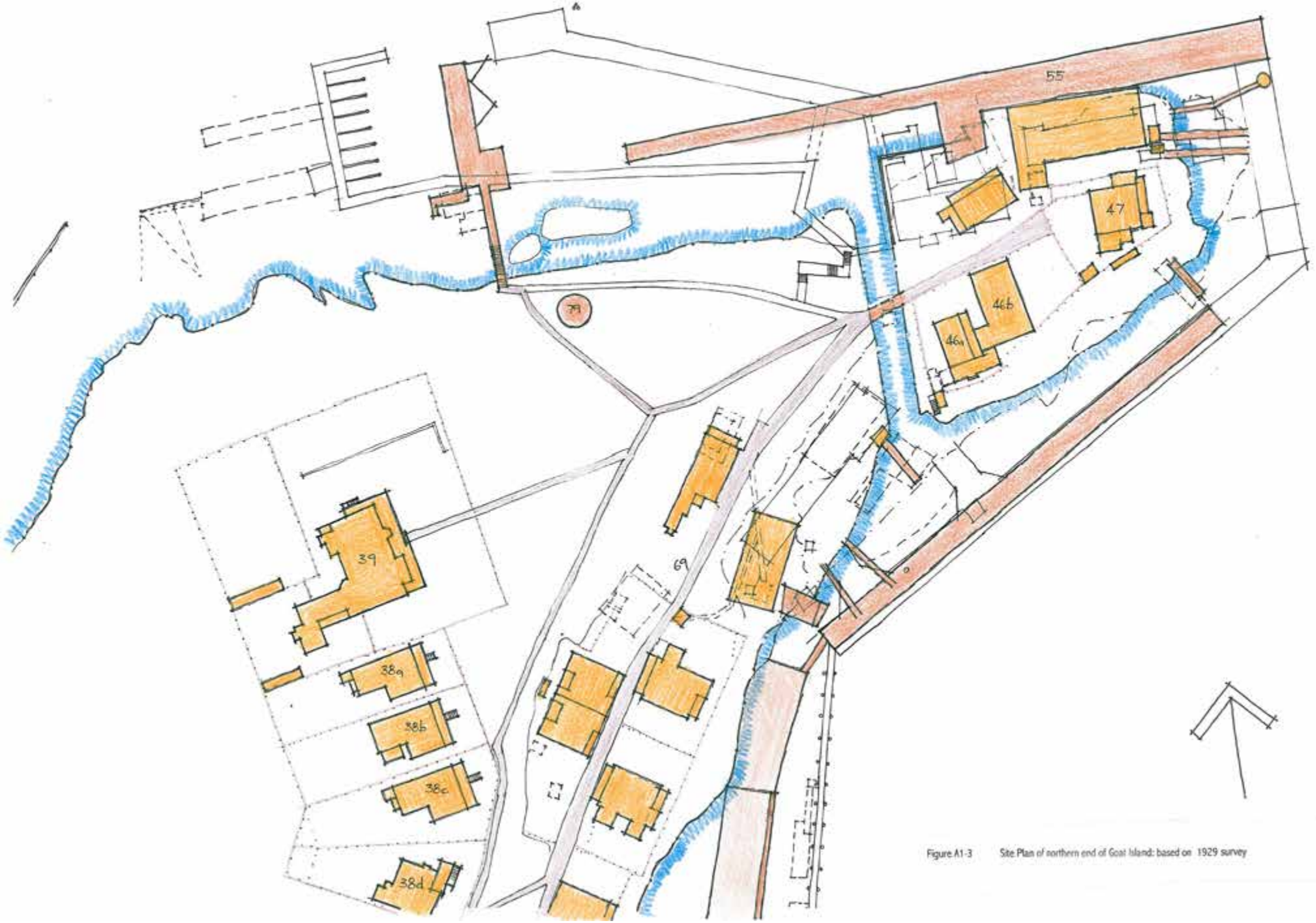


Figure A1-3 Site Plan of northern end of Goat Island: based on 1929 survey

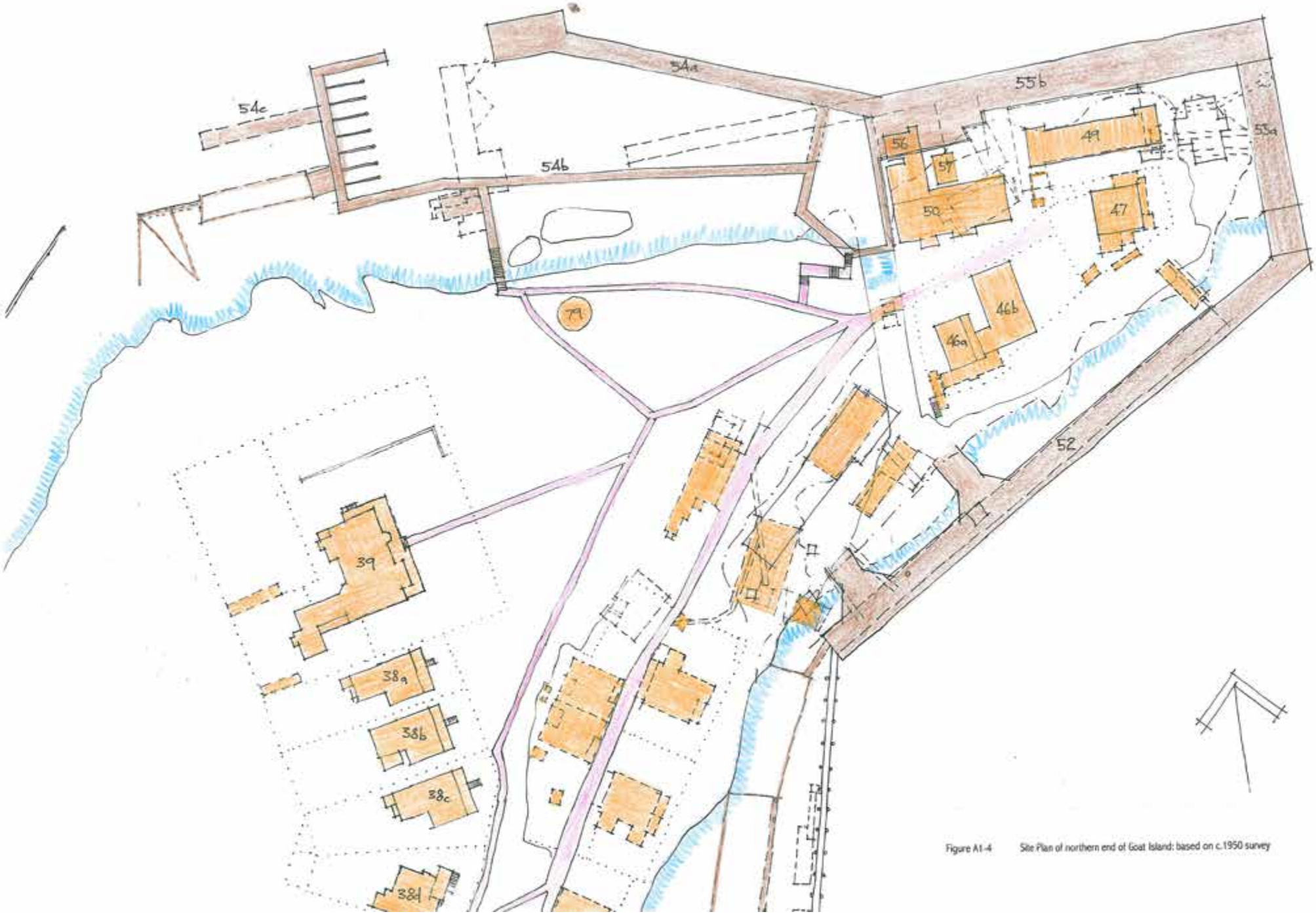


Figure A1-4 Site Plan of northern end of Goat Island: based on c.1950 survey

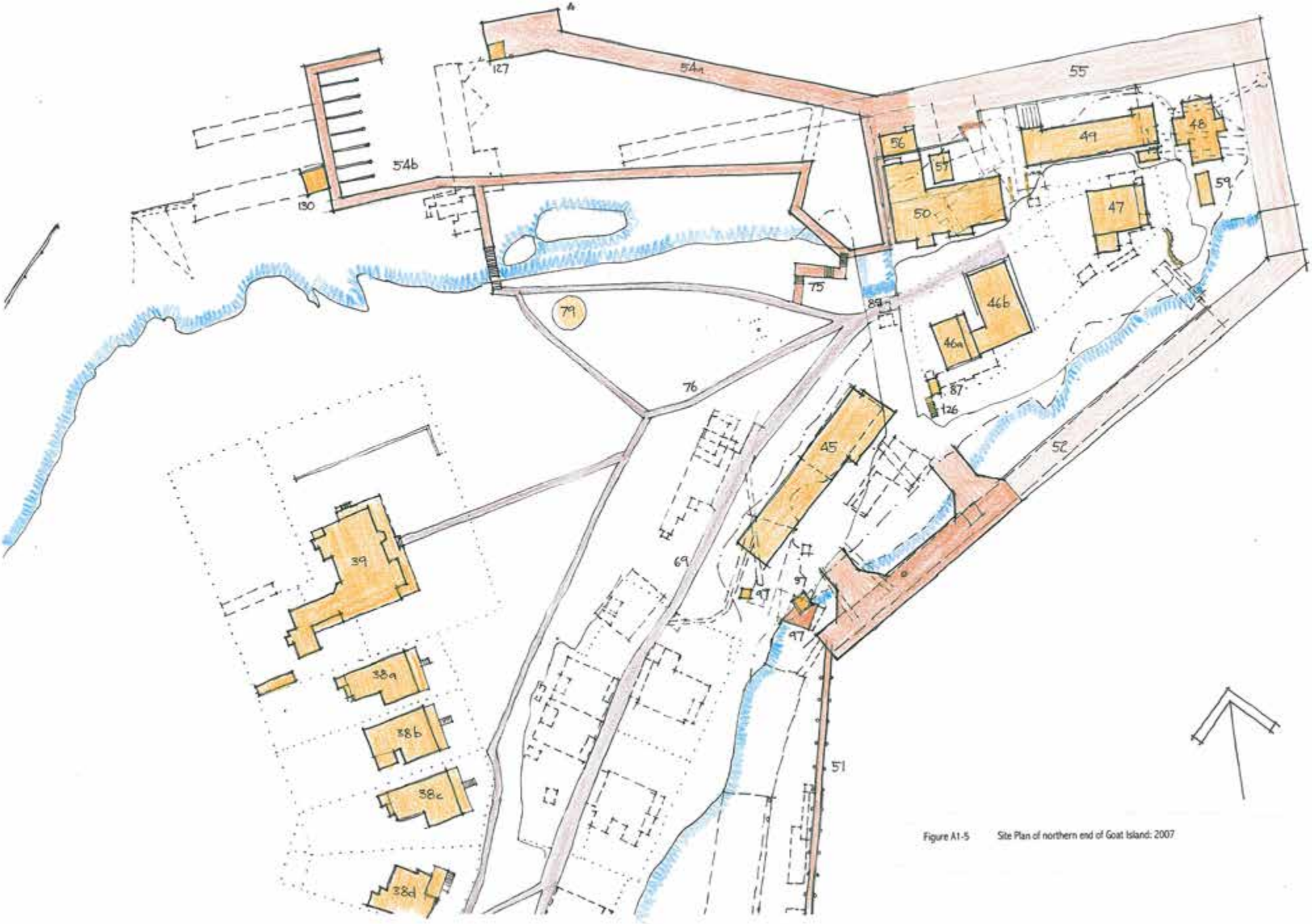


Figure A1-5 Site Plan of northern end of Goat Island: 2007

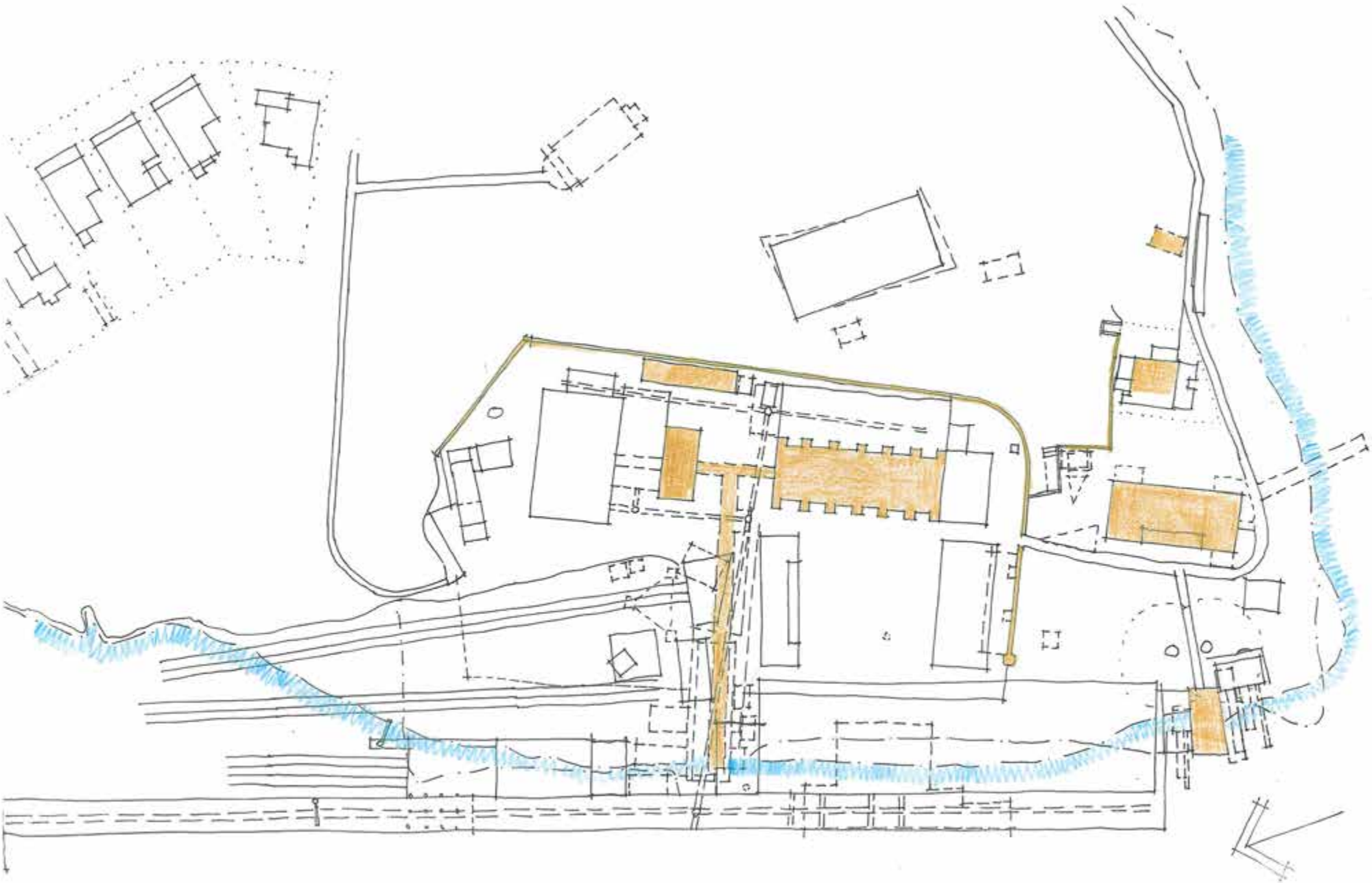


Figure A1-6 Site Plan of southern end of Goat Island: based on c. 1840 survey

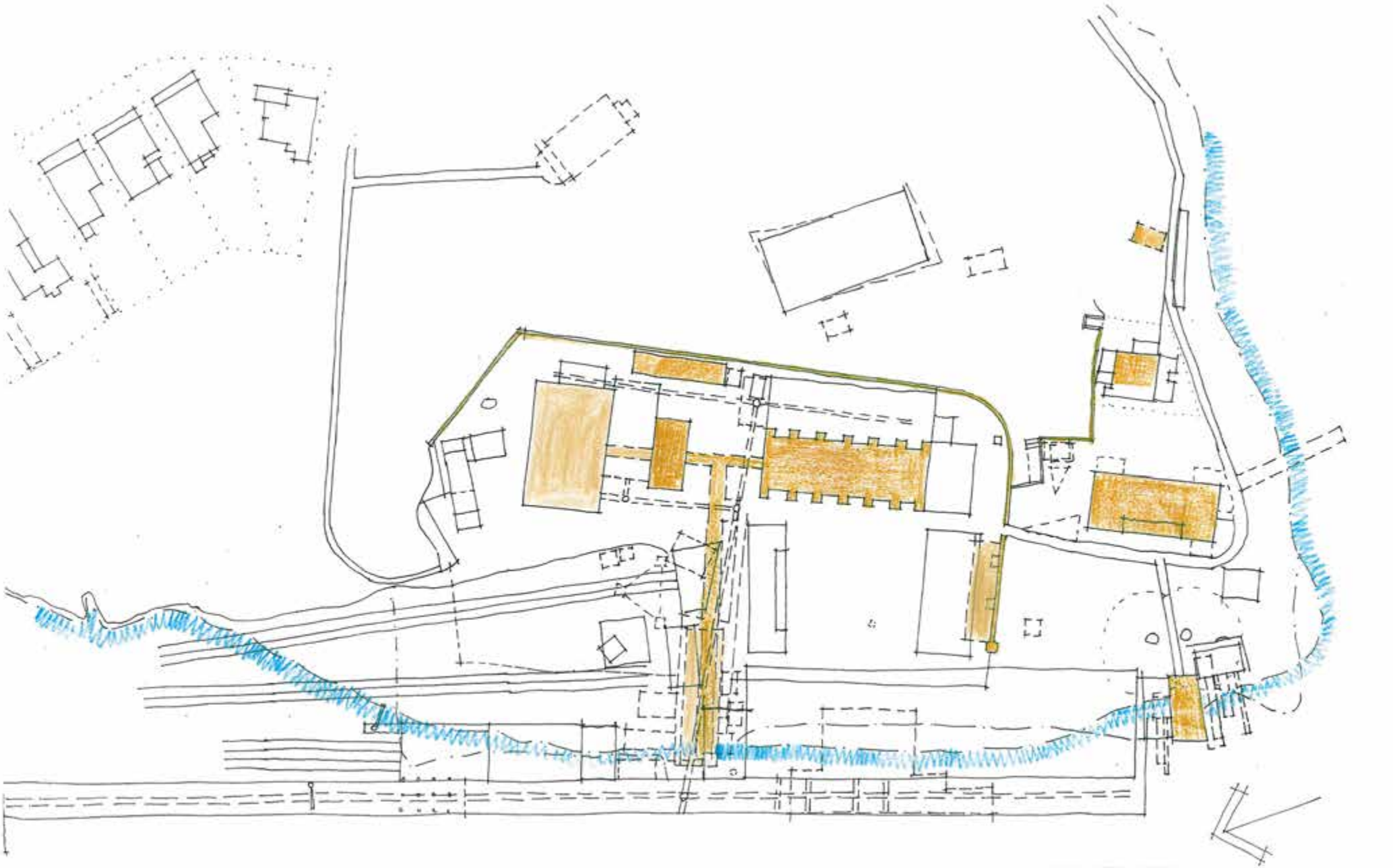


Figure A1-7 Site Plan of southern end of Goat Island: based on 1902-05 survey

Figure A1-8 Site Plan of southern end of Goat Island: based on 1929 survey

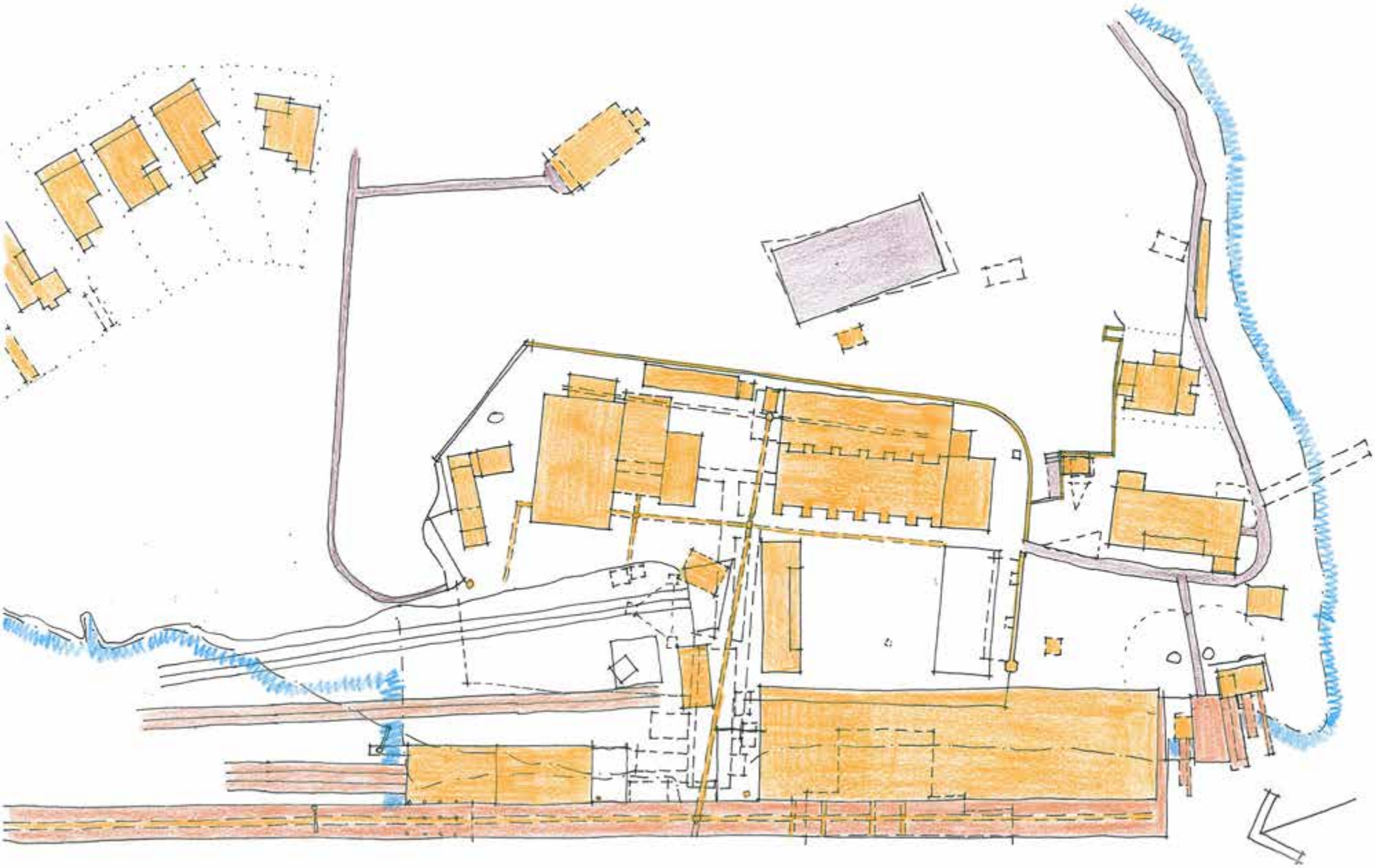


Figure A1-9 Site Plan of southern end of Goat Island: based on c.1950 survey

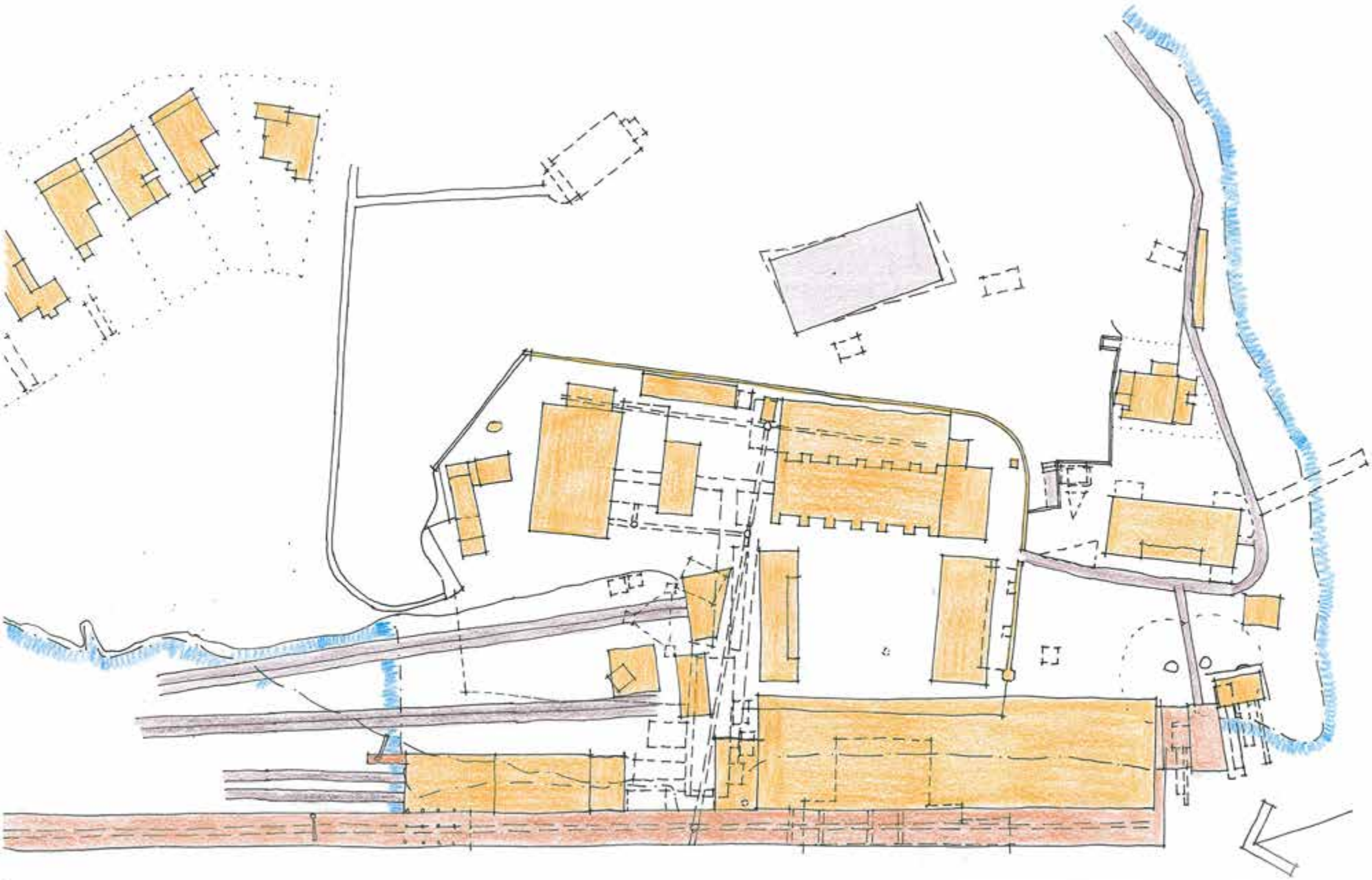


Figure A1-10 Site Plan of southern end of Goat Island: 2007

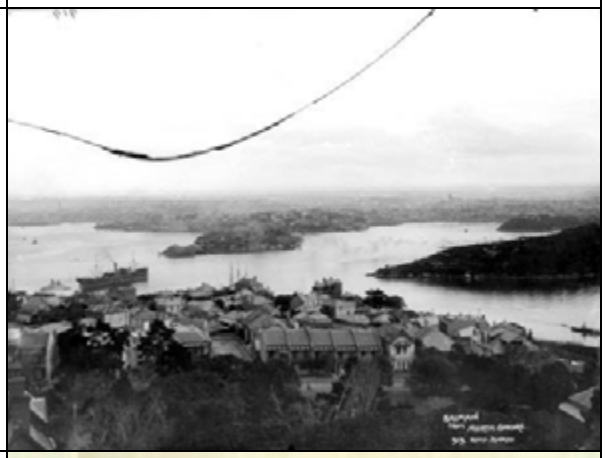
APPENDIX 2

GOAT ISLAND HISTORICAL IMAGES

GUIDE TO GOAT ISLAND IMAGES

These images have been used either in the Goat Island Conservation Management Plan Volume 1 or in the Goat Island Inventory sheets, Volume 3 of the Goat Island Conservation Management Plan.

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
City of Sydney Archives	SRC 12220. Circa 1882 photo taken from Sydney Observatory looking northwest towards Goat Island. The two 1870s magazines (1875 and 1878) and the magazine walk are visible on Goat Island. An outbuilding is also visible on the left behind the Barracks Kitchen.	
City of Sydney Archives	SRC 14960. 1892 photo taken from the North Shore (McMahons Point) looking southwest. Clearly shows both the Water Police Station and the Artillery Sergeant's cottage on Goat Island	
State Library	PXA 450 No. 22 pre-1885 photo of the Magazine complex	
State Library	PXE 711/53. Circa 1892-1898 photo, probably taken from Birchgrove, looking towards Darling Harbour. City skyline behind provides clues to photo dating: The photo is pre-Sydney Harbour Trust, so pre-1900 (no signs of SHT on either Goat Island or the Millers Point foreshore), the Sydney GPO including the tower clock (completed 1891) is there; the Sydney Town Hall including its clock tower (completed 1884) is there; a dome of the Queen Victoria Building completed 1898, is visible but no other domes visible (possibly incomplete). This is the best 19th century image of the Powder Magazine complex on Goat Island.	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
Powerhouse Museum	85/1284-2651 1/64 Tyrrell Inventory Number, 919 Kerry Studio Number Glass negative, full plate, 'Balmain, from North Shore', Kerry and Co, Sydney, Australia. Circa 1903-1911 photo taken from the North Shore. Date based on buildings on Goat Island (1903 Harbour Masters Residence built, 1912 Fire Brigade Barracks and 1916 cottages not present).	
North Sydney Heritage Centre, Stanton Library,	LPF 889. Pre-1865 photo by John Degotardi showing Goat Island and the Water Police Station from the North Shore (dating due to Artillery Sergeant's cottage not being present on Goat Island). Telegraph flag mast associated with the Water Police Station is visible to the right of the Water Police Station. (Extract of panorama by Johann Degotardi)	
Clark, Mary Shelley & Clark, Jack *The Islands of Sydney Harbour*, Kangaroo Press, 2000	Photo of Jessie Hickey (ne Comtesse) and wedding party (bridesmaid and flowergirl) at Goat Island, 1946. Image scanned from page 26 of the book *The Islands of Sydney Harbour*.	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library	d1_07915. Image showing construction site of 1946 Ship Repair Workshop on Goat Island	
State Library	d1_10116. 1946 photo of construction site of the Ship Repair Workshop on Goat Island	
State Library	Photo of the launch Goniemah moored next to the southern end of the Broadside Wharf and Ship Repair Workshop, Goat Island	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library	d1_10060/ GPO 1 - 10060 1955 launch of the hopper barge “Nyawi” and the slipways on Goat Island	
State Library	ON173. 1950s Image showing Hammerhead Crane at Mort’s Dock prior to relocation to Goat Island	
State Library	d1_10036/ GPO 1 - 10036 1943 image of the Queen’s Magazine, Goat Island	

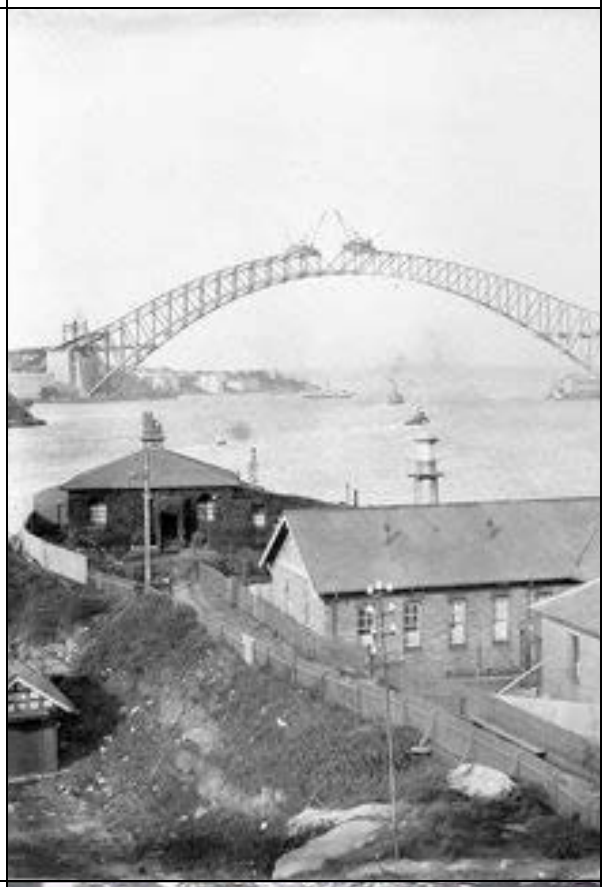
LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library	d1_10037/ GPO 1 – 10037. 1923 image of Queen's Magazine south elevation and south elevation of Cooperage, single storey explosives magazine (1885?) built against the fortified wall.	
State Library	d1_10259/ GPO 1 – 10259 Replica "Supply" under construction at Goat Island shipyard, August 1937	
State Library	d1_10263/ GPO 1 – 10263 Replica "Supply" under construction at Goat Island shipyard, August 1937	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library	d1_13441	
State Library	d1_13442	
State Library	d1_13443	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library	d1_10038	
State Library	d1_10046/ GPO 1 – 10046, 1943 photo of inscription on the cooperage	
State Library	d1_10045	

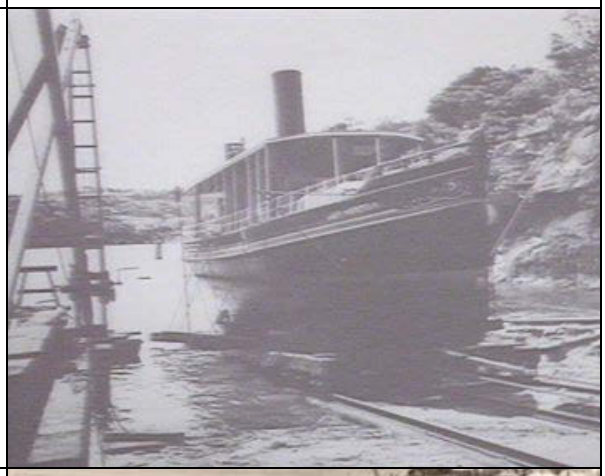
LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library	d1_13442. 1918 photo showing Colonial Magazine in foreground, 2nd cooperage (aka Stores Building) to left, 1st cooperage and Queen's Magazine behind	
State Library	d1_10041. 1943 photo of 1838 Barracks on Goat Island	
State Library	d1_20853/ GPO 1 - 20853 November 1961 photo of Kitchen Cottage	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library	d1_10061 Photo of the three 1916 Married Men's Sydney Harbour Trust Fire Brigade cottages on Goat Island	
State Library	d1_10059. 1968 photo of Harbour Master's Residence, Goat Island	
State Library	d1_47255. Circa 1903 photo showing Harbour Master's Residence, Goat Island, steam powered Sydney Harbour Trust fire brigade vessel	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library	02170r. 1930 photo from Goat Island of nearly complete Harbour Bridge arch, showing 1838 former Water Police Station (left), 1912 Fire Brigade Barracks (centre) and corner of 1865 Artillery Sergeant's cottage (far right)	
Stae Library	d1_10042. 1943 Photo of Goat Island Sentry Box	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library	d1_10047. 1940 photo of gate in Fortified Wall showing original timber entry gates.	
State Library	d1_13360 . 1918 photo of gate in fortified wall, with Queen's Magazine south elevation visible beyond, corner of picket fence near Barracks also visible	
State Library	d1_10039. 1943 photo of Barney's Cut	

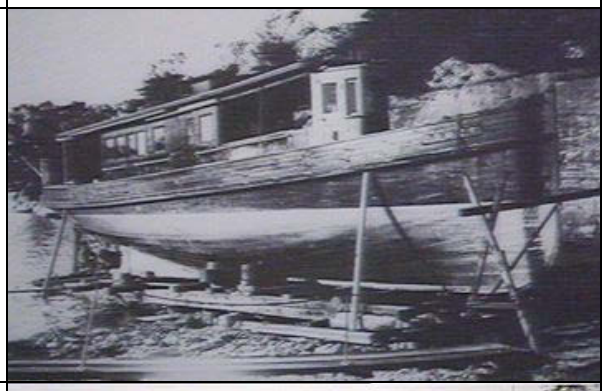
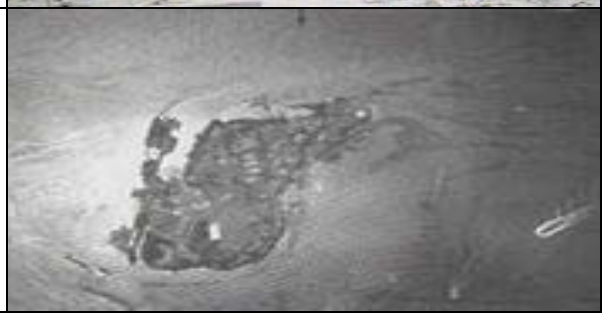
LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library	d1_10050. 1953 photo of Goat Island slipways	
State Library	d1_10058. 1966 photo of Goat Island slipways with Hammerhead Crane	
State Library	d1_20851. 1928 photo of Goat Island slipways	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library	d1_25000. 1956 photo of Goat Island slipways	
State Library	PXE 711/53 Detail of a photograph circa 1892-1898 shows the Magazine complex in its final state, including covered ways (marked by arrow) to waterfront buildings, the Colonial Magazine and a single storey building (marked by arrow) to the western side of the fortified wall (possibly the 1885 explosives magazine). Note sentry box is visible to right of this single storey building, and the Colonial Magazine in its unaltered state is at left of the picture.	
DECC	Aerial photo of Goat Island, May 1951, during MSB use of the island. Note the general lack of vegetation except on the western edge, and the manner in which the island is now virtually surrounded by wharves.	
State Library of NSW,	DG*D 14, 1841: Watercolour by Frederick Garling, Goat Island - place of punishment for prisoners, 1841	

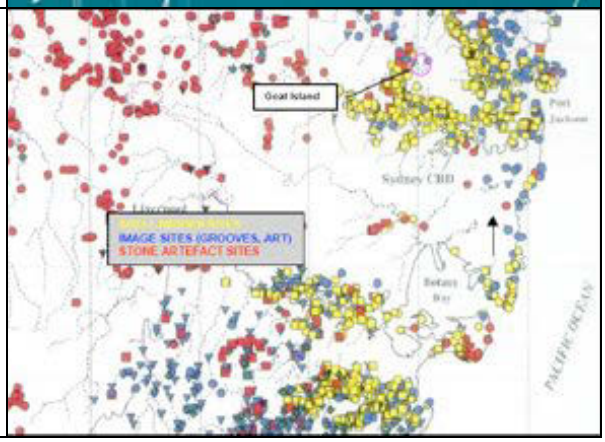
LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
National Library of Australia	nla.pic-an7372827, Ca.1843: Watercolour (National Library of Australia nla.pic-an2431374) & engraving by John Saddler of same view	
National Library of Australia	nla.pic-an813845, Ca.1848: Chromolithograph View of Sydney Cove, Goat Island and Darling Harbour by W. Gauci (printed by C. Hullmandel)	
State Library of NSW	SPF/919, pre-1864: photographic stereopair, Austraian scenery, Parramatta River, including Goat Island	
State Library of NSW	Pic. Acc. 1691 SPF/881, ca.1870s: Goat Island from the North Shore	
State Library of NSW	SPF/882, ca.1870s: Goat Island & Balmain from the North Shore	

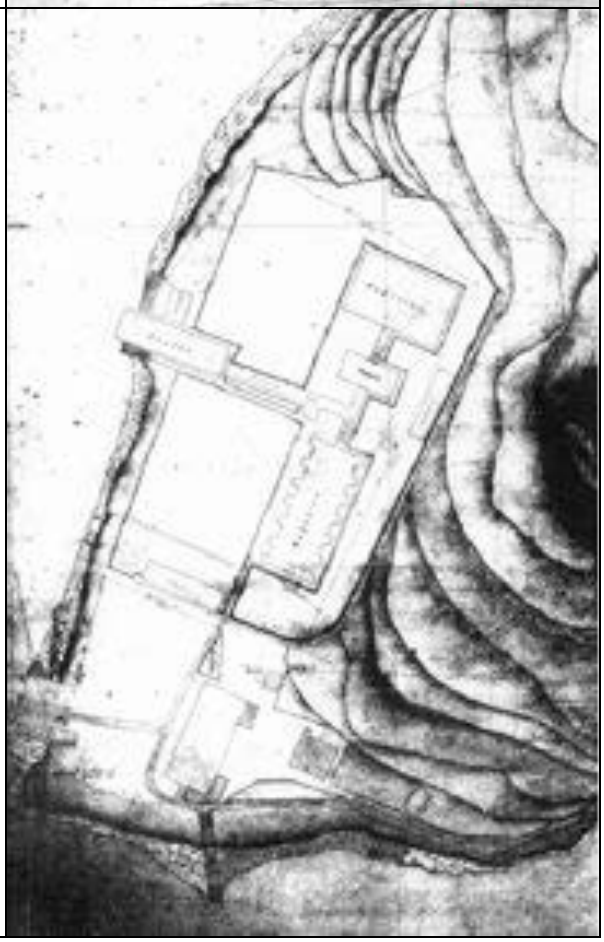
LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library of NSW	SPF/803 and SPF/804, c.1873: Panoramic view (in two parts) of Blues Point looking towards Balmain and Goat Island	
Mitchell Library, State Library of NSW	American & Australasian Photographic Company, Holtermann Collection, Reverse image posted on SLNSW Website ON 4 Box 81 No 1. Also ON 4 Box 77,No. 33.1870-1875: Looking from McMahon's Point across Goat Island to Balmain etc.	
Mitchell Library, State Library	Pic. Acc. 5864 Ca.1875-1879: John Degotardi photographic panorama (Part 3),	
National Library of Australia, State Library of NSW	nla.pican2449698 or SL SPF/794 1878: Ball's Head and Goat island from North Shore [notated between 1860 and 1879] ca.1878 (attributed to J.Paine) & Charles Troedel & Co chromolithograph	
State Library of NSW	SPF/883 Ca.1875-1885?: Goat Island & Balmain from the North Shore	
State Library of NSW	SPF/921, Ca.1875-1885: Goat Island from Miller's Point, Sydney,	

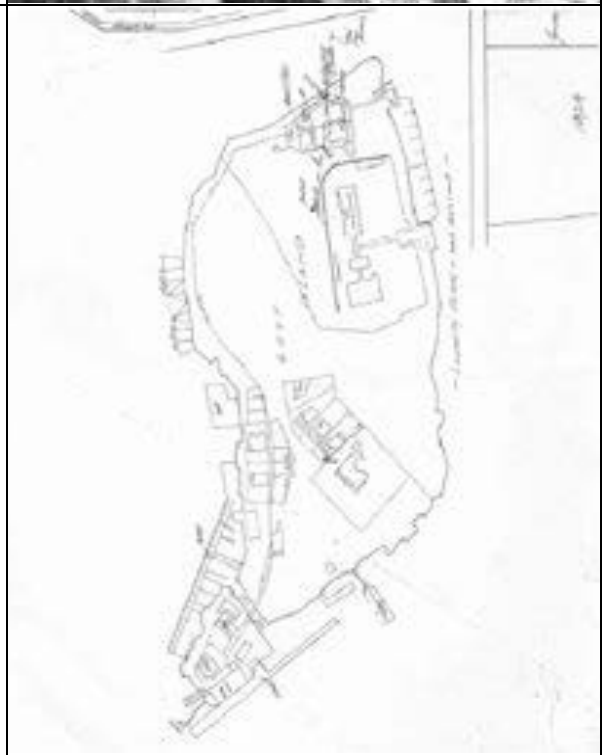
LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
City of Sydney Archives	Image No. SRC12220, No. 7 in a series, File 038\038617, NJ Caire, 1882: View from Sydney Observatory	
City of Sydney Archives	Image No. SRC14960, File 045\045015, c/- Lt Frederick RN, 1892: View of Sydney Harbour from McMahon's Point	
Powerhouse Museum	Kerry and Co., Tyrell Collection (1/64), Object No. 85/1284-2651, 1884-1917 (period Charles Kerry's studios were operating) likely after 1903 as the Harbour Master's residence appears to be present. Goat Island and Balmain from North Shore.	
State Library of NSW	PXE 711/53, 1898-1900: Albumen photoprint of Goat Island from either Birchgrove or Longnose Point	
State Records	NSW Image No. 9856_a017_AO170000351923: 1836 powder magazine	
State Library of NSW	NSW Government Printer series, GPO 1 – 20851 (MSBL945), 1928: Excavation for slipway	

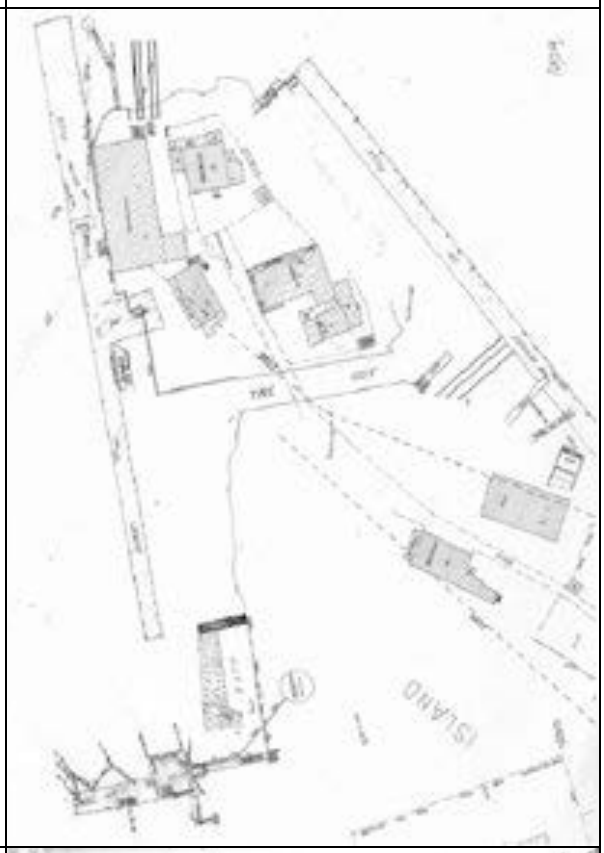
LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library of NSW	GPO 1 – 19718, 1930: Sydney Harbour Trust launch Comet, Goat Island	
State Library of NSW	GPO 1 – 10039 (MSBL966), January 1943: Overhead bridge: Goat Island	
State Library of NSW	GPO 1 – 10134 (MSBL1450), July 1946: Goat Island fitters shop & wall, Goat island	
State Library of NSW	GPO 1 – 10054 (MSBL958), 1947: Building construction: Goat island	
City of Sydney Archives	Image No. SRC2066, 1949 Aerial photograph:	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library of NSW	GPO 1 – 10040 (MSBL967), c.1950: Fireboats: Goat Island	
DECC	1951 Aerial photograph: Black & White	
State Library of NSW	GPO 1 – 10044 (MSBL971), 1951: Goat Island: Progress of new tug,	
DECC	1961 Aerial photograph: Black & White	
State Library of NSW	GPO 1 – 10059, 1968: Harbour Master's residence: Goat Island	
State Library of NSW	GPO 1 – 20852, c.1970 oblique aerial:	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
DECC	1972 Aerial photograph: Black & White	
DECC	1986 Aerial photograph: Black & White	
DECC	1999 Aerial photograph: Colour	
Attenbrow 2002: p. 98-99.	Distribution of Aboriginal sites within the Sydney Basin	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
State Library of NSW	Rebecca Martens two artistic renditions of Goat Island in 1857 – a black & whitle sketch and a watercolour painting. In the B & W sketch, the Barrack, Queens Magazine, Kitchen Cottage, Gunner Davis' cottage and at least one building in the privyarea beside the Kitchen Cottage are all visible. A wall beside the kitchen shows a darkened area (doorway?) to the left. This may be the Kitchen Alcove (26a) but it does not appear in the watercolour. The view in both images is to the north west with the Barrack Building the largest visible structure. It is clear that Martens has embellished the landscape around the Island to a degree, and all the buildings in the watercolour do not appear in the sketch.	 
Lands Dept	An 1891 plan of the magazine area showing the 1836 Queen's magazine, the 1836 Cooperage, the 1838 barracks building and kitchen behind with the privy to the right, the 1839 stores building, the 1852-59 magazine, 2 stores buildings on the wharf, covered ways and a shed built against the fortified wall. Other features shown are the wall, the various wharves (the magazine wharf, the western barracks wharf (still extant) and the southern wharf (now a ruin) and a slip, paths, gardens and an outbuilding behind the barracks, a stone wharf to the west and a stone jetty to the south. Magazine Walk is also clearly shown.	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
Lands Dept	The 1891 plan of the north-east end of the island. The buildings evident in this plan are the former 1838 Water Police Building by this stage with additions and outbuildings, the 1865 cottage and the 1875 magazines and store building. There is a stone wharf to the north of the water police station and the cut are both clearly shown as is the original shore line with its rocky outcrops. This jetty is now behind the sea wall and fill area. It is likely that it remains in situ and it may form part of the current sea wall. A second small jetty is on the southern side of the island, below the later magazines and with a small store building and possibly of timber construction. It was removed in the early years of the twentieth century and there is some evidence of its location on the cliff face. The plan also shows a bridge over the cut (probably at lower level than the present bridge based on site inspection) the main path connecting to the magazine precinct (Magazine Walk) and ancillary paths and fences. Interestingly the change of alignment in the walk adjacent to the larger magazine is still evident in the path alignment.	
Lands Dept	An informative 1924 plan of the island showing the extent of the Harbour Trust development just prior to their redevelopment of the magazine precinct. The Trust added the various residences on the ridge and to the east, the fire brigade barracks, workshops and stores along the northern shore and converted the barracks and kitchen and used the water police building for residential use. Many of the buildings built in this phase have been removed including the workshop and stores buildings and six of the residences. The wharves at this time comprise: the early stone jetties and wharves to the magazine precinct, an area of fill near the magazine in preparation for the new wharf construction, the first north wharf and ferry jetty, located with a parallel outer face, the stairs and jetty for the Harbour Master, the rough eastern wharf located off the shore line and several skeleton wharves further south braced off the cliff face. The only wharf elements remaining from this period are the stair to the residences and the alignment of the north wharf however both elements have been rebuilt. This plan also shows the privy (94) and the small stores building (109) located near the barracks.	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
Lands Dept	A detailed plan from 1929 (part of plan of whole island), nearing the end of the Harbour Trusts tenure of northern area of the island showing more detail of the layout of the buildings and wharves. It is interesting to observe the range of small buildings, sheds, boatsheds and ramps around the edge of the water, the full length of the cut that was modified around 1960, the fence line of the Harbour Master's residence and what appears to be the incorporation of one of the magazine buildings from 1875 into the residence visible in the centre of the drawing. The stone seawall immediately to the north of the cut returning to the east appears to date from around 1901 and also appears to remain intact as the face of the current wharfage.	
State Library of NSW	GPO1-07894. Photo of reconstruction of the Eastern Wharf. May 1944.	
SLNSW GPO1-10051.	"Samson" Coaling. 9.1.1952. This is the clearest illustration of the coal platform that has now been removed. Also note the dolphins that were replaced when the new slipway was constructed.	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
SLNSW GPO 1-10268	The completed shark-proof pool. 27.11.1941. This informative photo shows the straight ferry wharf and the early northern wharf configuration prior to the new shore sheds in that area. The stone sea wall remains untouched from the c1901 phase of work.	
SLNSW GPO1-10052.	This photograph is entitled “New wharves”. July 1944. This is a view along part of the skeleton wharf (removed around 1969) looking towards the eastern tip of the island with the new broadside wharf in the background.	
SLNSW GPO1-19371.	Wharf construction c1940. This picture has been attributed to the 1920 period but the ferry wharf was not angled until reconstruction in c1945. The pool area is visible to the left of the frame. The shed to the west of the pool seems to have been moveable – it appears in a number of locations in various photographs as construction works are carried out. This also shows the wharf at approximately half its current length suggesting that the photo was taken during construction. There is no documentary evidence that this wharf was built in stages.	
SLNSW GPO 1-07969	Construction of the ferry wharf. Undated Most likely 1944 after the addition to the end of the wharf was complete.	

LIBRARY/ ARCHIVE	IMAGE DETAILS	IMAGE
(Sydney Harbour Foreshore Authority collection).	Dawes Point view to the north to Milson's Point and Lavender Bay, 1905. One of the subterranean powder magazines can be seen in the foreground	

APPENDIX 3

CONSTRUCTION OF TIMBER WHARVES

All timber (and steel) wharves around the Harbour have similar base construction with usually only minor variations depending on where they are located, the tidal and water conditions in the area and the nature of the loading or vessels to be moored against them. To provide clarity in terminology, to understand how wharves are constructed and to provide a basis for considering if any aspects of the wharves on Goat Island are unusual or of particular significance the following drawing and description is of a typical wharf at Goat Island and across Sydney Harbour.

A timber commercial wharf comprises four basic parts:

- piles

These support the superstructure and extend into the seabed to various depths, usually they are around 350mm diameter hardwood posts often of turpentine timber.

Where required for stability raking piles are used in the form of a diagonal brace that extends from the top of the pile at an angle into the seabed. They are usually the same dimension as the main pile

On many wharves piles are concrete encased or have a second pile adjacent. These are repair works to either replace the pile or to strengthen a pile that has deteriorated. Other repair techniques can also be seen where piles are sealed with membranes to prevent wave action from damaging them further.

Fenders are also commonly used along a wharf frontage, these are timber piles that are located directly in front of the main pile, extend into the seabed and usually extend above the wharf level. They are not usually located at every pile grid but may be every second or third. Often fenders are slightly smaller in diameter than the pile with a diameter of around 300mm.

Piles or fenders with exposed and projecting ends are often seen with a metal ring around the top edge set onto a narrow cut away section. This is used to prevent the timbers splitting and failing. To further assist the top edge around the ring is painted white to seal the end grain where the timber is most vulnerable to water entry.

Other forms of bracing are seen between piles such as simple cross bracing in timber of sometimes steel. Bracing is used on an “as needed” basis in particular conditions. Bracing can also be seen on free standing wharves (such as the eastern wharf at Goat island for example) where timber round poles are fixed between the upper end of piles and the shore as lateral braces to resist the movement of vessels against the freestanding wharf. In some situations steel is used in this situation but this would indicate the ties are holding the wharf to the shore as steel is a tensile material. Both systems may be used.

The bracing of wharves varies significantly between a free standing structure and a broadside wharf. For the latter which is attached along its length to the shore, bracing is achieved by the continuous shore connection usually to a seawall. For a large free standing mooring wharf such as wharf 4b or the eastern wharf, where there could be considerable numbers of vessels moored and the action of passing vessels and inclement weather would place great pressure on the wharf structure, additional bracing would be necessary.

Common grid layouts for larger wharves vary from 3 – 4.5 metres.

- framing for the wharf deck

This generally comprises headstocks that sit directly on the pile as the primary framing and transverse girders that are the equivalent of floor joists in building construction. Headstocks are sized to suit the pile spacing but are also generally 350 x 350 mm squared hardwood. Girders are spaced more frequently, to suit the loadings, but generally around 1 metre apart and a typical girder dimension is 300 x 300 mm.

In some situations headstocks are paired on either side of a pile, timber widths usually are then reduced.

- deck

Decking is either timber boarding or concrete. Concrete was introduced in the second half of the twentieth century and as seen at Goat Island replaced timber decking on some wharves, other wharves such as the coal loader (wharf 5) appear to have had concrete from their construction.

Timber decking is usually around 100mm thick with board widths varying around 200mm, decking is squared timber laid either with a gap between boards or where vehicles access tighter spacing.

Concrete decks are reinforced and vary in thickness depending on loading requirements and span, typical thicknesses are 120 – 200mm.

On many of the commercial wharves timber kerbing is fixed along the outer edge or edges to prevent risk of vehicles or items falling or driving off the wharf edge. A typical kerb timber is 200 x 250 mm although they vary considerably depending on access and use of the wharf.

- deck fittings

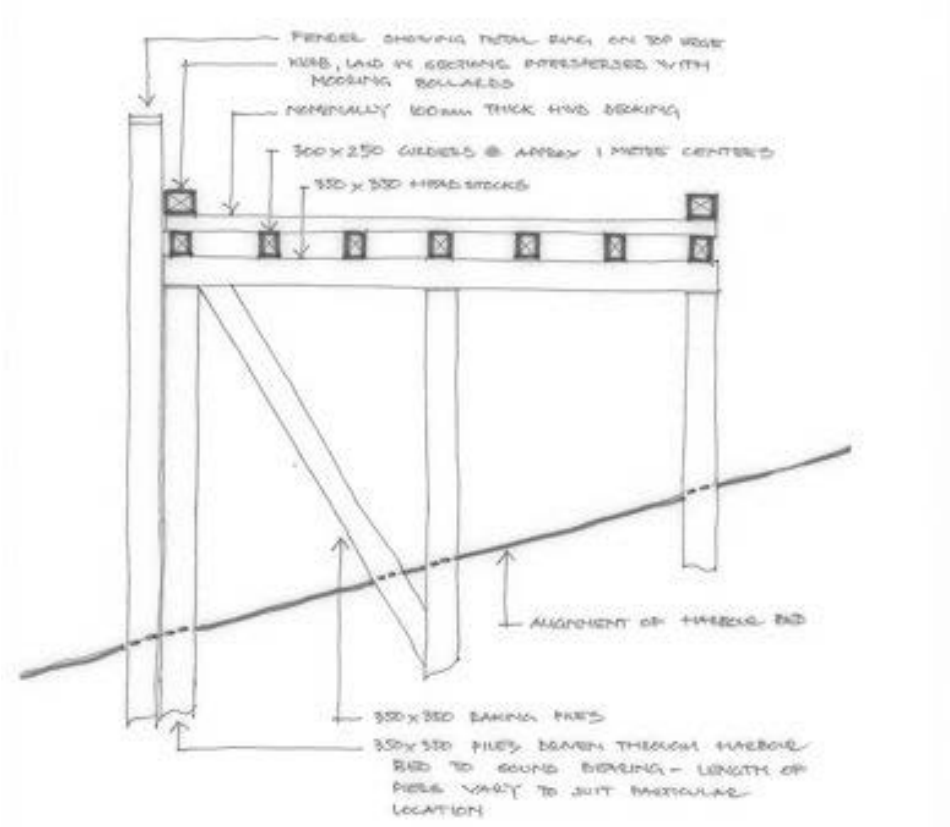
The common deck fittings are cast iron mooring bollards of varying designs and sizes commensurate with the vessels to be moored, timber or metal cleats fixed to fenders for mooring, light standards at intervals along the wharf, timber fencing, small hand operated cranes and larger mechanised cranes, often on the wharf but also often mounted behind the wharf on solid ground, fire hydrants and other fire fighting equipment, safety equipment such as life buoys and access timber ladders to water level.

Wharf timbers are usually simply fixed with steel bolts or large scale steel nails or spikes. Generally holes are pre-drilled due to the nature of the hardwood but also due to the size of the fixings. Specially designed steel plates and fixings are often used to connect timbers that are in tension (braces) or are added to stiffen an element.

Most deterioration of wharf timbers is due to water. Piles fail in the tidal zone where the timber is wet and dried and less often at the top edge or fixing points. Engineers consider that a pile has failed when its diameter is less than 200mm.

Headstocks and girders generally fail at the point of connection between members where water is trapped between timber surfaces. Examination of timbers after decking removal shows clearly the failure of the upper face of girders and the intersections of girders and headstocks as well as deterioration of the end of the members and around the major fixing points.

The Figure below shows the principal wharf elements and a typical layout. This layout is taken from the free-standing eastern wharf at Goat Island but applies generally around the island.



Typical Section through a timber Wharf showing component parts, this section is based on wharf 52a, a freestanding wharf.

APPENDIX 4

GOAT ISLAND ABORIGINAL ARCHAEOLOGICAL RECORDS

APPENDIX 3: GOAT ISLAND ARCHAEOLOGICAL RECORDS

Port Jackson Archaeology Project

The findings of the Australian Museum archaeologist Dr Val Attenbrow *Port Jackson Archaeology Project* (1989) and research undertaken for her book, *Sydney's Aboriginal Past* (2002) provide the backdrop of past Aboriginal activity in the Port Jackson region where Goat Island is situated. The Sydney Region as defined by Attenbrow includes two broad food resource environments: coast and coastal hinterland (Attenbrow 2002: 62). Goat Island is located within the coastal zone is the ocean shoreline along with Port Jackson, Broken Bay, Port Hacking and Botany Bay. (Attenbrow 2002: 62). In discussing the distribution of site types or traits across this Sydney region, Attenbrow notes that: *shell middens are associated with estuarine and ocean shorelines…A large number of sites are associated directly with sandstone…rock shelters with midden or deposit and/or images, engraved images and grinding grooves on rock platforms, stone arrangements, abraded channels and waterholes* (Attenbrow 2002: 49). These Aboriginal sites were plotted by Attenbrow in 2002 (Figure X). From this map one can see the frequency of Aboriginal sites of the area and specifically the clustering around the waterways, like the George's River, Parramatta River and the coast. In the vicinity of Goat Island shell midden sites (in yellow) predominate; some campsites (in red) and image sites (in blue) are also recorded in the area.

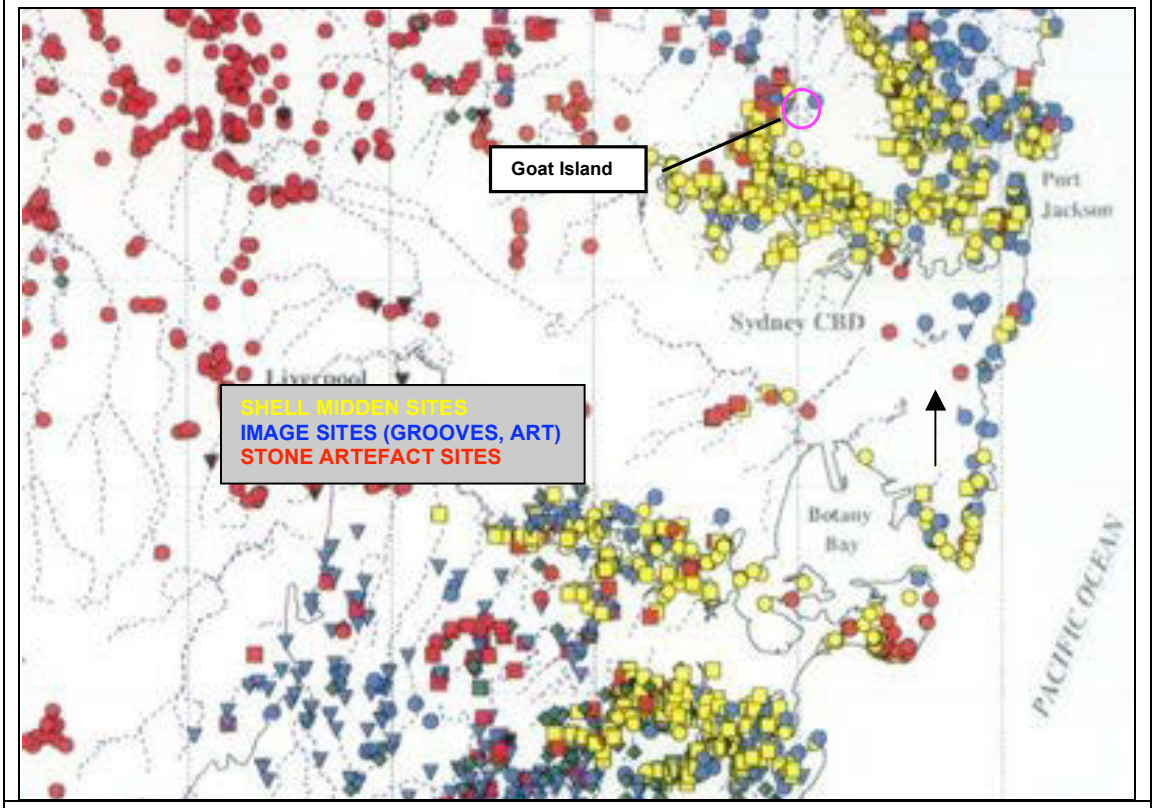


Figure: Distribution of Aboriginal sites within the Sydney Basin (After Attenbrow 2002: 98-99).

Only a few hundred metres from Goat Island across the harbour to the north, several middens and rock engraving sites are located at Berry's Bay and Balls Head peninsulas and are principally in open situations around the foreshores. Human skeletal material was also recovered from Balls Head. These places contain similar landform and vegetation to Goat Island prior to its occupation and modification.

Evidence of Aboriginal activity was recovered in several locations in The Rocks to the south of Goat Island and up the Parramatta River at Glades Bay and Lilyfield.

The main Aboriginal site type found in the immediate surrounds to Goat Island, and relevant to Goat Island are shell middens.

Aboriginal shell middens are deposits in which shells are the dominant visible component. They are the result of a single or multiple dinner time camps which exhibit shell discard after eating. Middens can also contain the remains of other parts of the Aboriginal diet such as fish, birds and mammals. Charcoal and hearth stones from fires as well as other cultural items such as stone and bone artefacts can also be present. Mainly, however, shell is the largest component of the midden. Middens range in size from a few metres across to many hundreds of metres and can consist of a thin, single layer, or multiple layers forming a thick deposit. Species within shell middens include mussels, snail-like turbos and whelks, abalone, pipi, cockle, mud and rock oyster.

Middens are the most common archaeological site in Port Jackson, as fishing and seafood was the main subsistence practice in the coastal zone. Shell middens are associated with estuarine and ocean setting in the Sydney region (Attenbrow 2002: 49). They can occur near rocky or sandy shores and also close to coastal wetlands, inlets, estuaries, bays and river mouths. Shell middens are found in a range of contexts including layers of shell exposed in the sides of dunes, banks or cliff tops, as deposits within rock shelters, as scatters of shell exposed on eroded surfaces, in coastal scrub and woodlands or on exposed cliff tops with good vantage points.

Shellfish are plentiful and most nutritious in the summer time, making this activity largely seasonally based. Aboriginal people gathered a range of shellfish species from mud flats, rock platforms and the sandy shores of ocean beaches, river inlets, estuaries and bays. As the shell fish were not portable they were eaten straight away (Attenbrow 2002: 67). Shell from such a meal would have been discarded in a spot creating a shell midden (seasonal dinnertime camps). Shell middens can consist of the shells from a single meal or many different meals eaten in the same location over many months or years. Mainly shellfish were eaten raw, but the presence of burnt shell indicates they were just as frequently cooked in hot coals as heat from fires opened the bivalves slightly.

In the early European years the expansive shell middens of Port Jackson were seen principally a source of lime for construction purposes and as a means of soil improvement (Attenbrow 2002: 5). Many of the middens located close to farming and construction activity were the first to be exploited with shell beds and middens entirely removed in a short period of time. As shown on Figure 3.?. over 400 shell middens still exist in the Sydney area despite their exploitation in the early years of the colony, and many of the sites were assessed as being relatively undisturbed and capable of providing information about past Aboriginal activities. It should be noted that shell middens are likely to survive processes such as natural weathering over time, because of the hardiness of the shell coupled of course with the shell middens consisting of large accumulations of shells. Therefore, they are generally likely to survive except where deliberately destroyed by later European activity.

Known Aboriginal Archaeological Resource at Goat Island

A search of the DECC's Aboriginal Heritage Information Management System (AHIMS) was conducted surrounding and including Goat Island. Three site cards are currently registered on Goat Island. They are detailed below:

Table

CMP ID	AHIMS#	SITE NAME	SITE TYPE
N/A	45-6-2382	Goat Island 2	Entire Island
N/A	45-6-1957	Goat Island Cave	Shelter with Midden
62	45-6-0811	Goat Island	Midden, Open Camp Site

Goat Island 2

Victoria Gollan registered Goat Island with AHIMS on 3 December 1992 as an Aboriginal place. It was noted as a place of Aboriginal and European contact. In addition Goat Island's association with Bennelong and the mention of Goat Island in diaries and papers of I.E. Threkeld as a point of Aboriginal imprisonment was the rationale to register this island. The site card refers to and draws on a doctoral thesis which investigated the significance of Goat Island to Aboriginal people.[1]

This research asserted that Goat Island should be regarded a place of major significance for Aboriginal people primarily because of:

- In the first years of the colony Goat Island was thought to be Bennelong's estate[2].
- Goat Island was a place of early imprisonment for Aboriginal people[3].

This registered recording is more a place of aesthetic significance and social association as opposed to a particular discrete archaeological site.

Goat Island Cave

Recorded as a west facing rock shelter with midden on the 18 January 1990 during his Aboriginal Relics Survey of Metropolitan Sydney (no reference). The site was described as the following: Located just below the grassed area on the western side of Goat Island near two large Port Jackson fig trees…[that should be] approached from top. The dimensions of the rock shelter are approximately 12 ft (length) x 5 ft (height) x 4 ft (depth). The shell midden consists mainly of Sydney Rock Oyster (Saccostra commercialis).

The GPS co-ordinates supplied on the site card locate the site off the island and beneath a jetty dating from the early MSB period (1940s). The adjacent area was developed into a wharf from the Colonial phase. Two large fig trees described in the site card are located on the south western corner of the Island, just south of piers.

Goat Island Cave as recorded was not relocated during the site inspection.

Goat Island

Elizabeth Rich recorded and registered an open shell midden site in July 1985 during research works for an earlier Conservation Management Plan. This site is located on the north eastern side of the island on a landscaped garden to the east of the Harbour Masters residence. The condition in 1985 was recorded as being very disturbed with very fragmented shell. The midden measured 1.2 m (length) x 0.8 m (wide) x 15 cms (deep). Shell species consisted predominantly (75%) of *Anadara trapezia* with no stone artefacts, bone or charcoal present.

The location of the Goat Island shell midden was inspected during the survey undertaken for this project, but the midden was completely obscured from view.

[1] V. Gollan (n.d.). Report on the significance of Goat Island to Aborigines in the early years of New South Wales. Report based on a Phd thesis (c1993) entitled 'Colonisation and the law: the role of British law in the dispossession of Aborigines 1788-1840'.
[2] ibid.
[3] ibid.

Previous Aboriginal Archaeological Studies on Goat Island

There are two known Aboriginal archaeological consultative studies that have taken place on Goat Island prior to the current Austral investigation. These are Rich (1985) and HLA (2003). A summary of their findings follow.

Rich, E. 1985. Goat Island: Archaeological survey and Assessment of Aboriginal sites. Report to the Maritime Service Board of NSW.

Rich conducted an Aboriginal survey in 1985 in collaboration with the MLALC. During this survey the shell midden described above (site name: Goat Island) was observed, recorded registered with AHIMS.

Rich assessed the scientific research potential of the shell midden as minimal (Rich 1985: 13). This was due to its shallow disturbed nature and the lack of stone tools within the deposit. In addition the deposit is likely to have been contaminated by recent carbon so this ruled out carbon dating research (Rich 1985: 13). Rich assessed that it was not suitable for conservation and it had limited potential for public interpretation (Rich 1985: 15). However it is known to have general historical and heritage value to the local Aboriginal community (Rich 1985: 15).

During this 1985 study Rich noted the Island contains a number of areas that may have been favourable to Aboriginal exploitation such as rock shelters, however many of the rock overhangs have sloping floors and therefore less potential for occupation and none had evidence of cultural deposit. Quartz deposits were identified as a suitable stone resource for stone tool manufacture, yet there were no quartz artefacts observed (Rich 1985).

This midden may be of some antiquity considering its fractured and disturbed condition and the fact that it contains a predominance *Annandara trapezia*, which decreased in population size after an environmental change around 3000 years ago (Attenbrow 2002: 68). It is hypothesised that these species would have been exploited when they were in abundance before 3000BP.

HLA May 2003. Archaeological Management Plan for Goat Island, Sydney Harbour. Report to the National Parks and Wildlife Services

A pedestrian survey of Goat Island was conducted by HLA with site officers from MLALC in attendance. Previously recorded sites by Rich and Guilder were not relocated during the site inspection, mainly due to vegetation overgrowth.

During this investigation Mr. Allen Madden of MLALC reported anecdotal evidence of Aboriginal rock engravings on sandstone bedrock under the cottages near the shell midden site (HLA 2003: 17).

HLA noted that the majority of the sandstone across the island had been previously altered by levelling and quarrying in the past (HLA 2003: 17). This report noted that the areas where impact has been minimal include the northwestern escarpment where natural caves and shelters exist and have the potential for unknown Aboriginal sites to be present.

Austral Archaeology site inspection

During the site inspection carried out by Austral in 2007 site AHIMS # 45-6-0811 (Site name: Goat Island) recorded by Rich was visited. The condition of the site could not be assessed as the site is completely obscured by ground cover.

Site AHIMS # 45-6-1957 (site name: Goat Island Cave) as recorded was not relocated during the site inspection, primarily due to the inaccurate GPS coordinates. However oyster shell fragments were observed eroding out from the topsoil above a rock platform directly adjacent to the partial lime kiln (95) in the south eastern corner of the island near two large fig trees. The nature of the collections of shells noted by the fig tree is unknown as it may be an insitu shell midden or a pile of shells collected for the kiln below.

APPENDIX 6

TERMS & ABBREVIATIONS

APPENDIX 5
GOAT ISLAND SCHEDULE OF CYCLICAL MAINTENANCE WORKS

GOAT ISLAND SCHEDULE OF CYCLICAL MAINTENANCE WORKS

INTRODUCTION

This Schedule of Cyclical Maintenance Works has been produced to comply with the Project Brief for the Goat Island Conservation Management Plan.

This plan was prepared by Paul Davies Pty Ltd Architects Heritage Consultants. The built elements of Goat Island were inspected during a number of site visits between October 2007 and May 2008.

This Schedule sets out maintenance works to major fabric elements. Significance of fabric elements has also been assessed It includes repair works where required to stabilise or prevent ongoing damage to the fabric. It also includes ongoing cyclical maintenance required to preserve each built element. Reconstruction or adaptive reuse works are not included as part of this Schedule. The schedules are broken down into the main elements of the buildings instead of being trade based. They provide a brief description of each element and its current condition. Required works are then identified. The priority of each item is then identified as being one of the following: 1, 3, 5 and 10 years (as required by the Brief). Actions marked with a * next to the Timeframe (no. of years) are one-off conservation actions that are required immediately (the accompanying no. will be 1, meaning these actions should be undertaken within a year).

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
BUILT ELEMENTS OF EXCEPTIONAL SIGNIFICANCE				
Queen's Magazine (15)				
This building is the core of the Magazine complex, of national significance as the earliest military gunpowder magazine in Australia. While remarkably intact, it has undergone unsympathetic alterations during the Maritime period including the insertion of a concrete floor, electrical wiring and the construction of buildings/extensions to the south (15a) and east (16). Overall policy recommendations for the Magazine Precinct recommend the removal of these adjacent structures to restore the original isolation of the Queen's Magazine, the removal of the concrete floor and replacement with a timber floor, excavation around the building to restore original ground level and original drainage system, and reinstatement of covered way to the Cooperage (19), in addition to conservation works.				
Roof	Exceptional	The gabled slate roof is in good condition, having undergone extensive repair work in 2003	- periodic inspection of roof and flashings by slate roofing contractor and undertake repairs recommended by contractor	5
Floor	Intrusive	The original timber floor has been replaced with concrete. This has exacerbated damp problems within the walls of the magazine.	- remove concrete floor - examine area beneath for evidence of original footings - install new timber floor	1* 1*
Sandstone walls - internal	Exceptional	The sandstone internal walls are partially painted, and the paintwork includes painted signage relating to the mid 20th century MSB storage use of the building. Original internal finish likely to be limewash.	- leave internal paintwork as is & monitor OR - repaint in limewash DEPENDANT ON INTERPRETATION PLAN	5
Sandstone walls - external	Exceptional	Sandstone walls are in good condition, having undergone repair work in 1998 including repointing, replacement of coping stones. However, build up of soil externally results in continuing damp penetration.	- excavate external perimeter of the building to recover and repair original drainage system. This will necessitate approvals for archaeological excavation under the NPW and Heritage Acts. - desalination of walls - periodic inspection of stonework & repoint with lime-rich mortar as necessary - see recommendations of D. Young, November 2007 *Goat Island Queen's Magazine & Water Police Station: Initial condition assessments and recommendations for further investigations* for further details	1* 1* 3 5

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Original Doors	Exceptional	Maintain original doors in current locations including copper sheathing, to both ends of the magazine (note doors to south elevation not in original location – reused internal doors from north elevation)	- periodic inspection, and where necessary, patch original timberwork to doors - repaint southern doors and monitor cement to reveals for impact on stonework, particularly if building 15a is removed	3 1* then 5
Timber shutters	Exceptional	Maintain original shutters	- periodic inspection, and where necessary, patch original timberwork to shutters	3
Copper flyscreens	Exceptional	Maintain copper flyscreens to both ends of the Magazine. These are in good condition, having undergone repair work in 1998	- periodic inspection of flyscreens	5
Electrical wiring	Intrusive	Mid 20th century electrical wiring detracts from the appearance of the Magazine	- replace & relocate electrical wiring to reduce impact on external and internal appearance.	1*
Cooperage (19)				
This building is one of the core 1836 buildings of the Magazine Complex of exceptional significance. Evidence of an early covered way linking this building to the Queen's Magazine remains over the doorway in the southern elevation. Consideration should be given to reinstatement of the covered way, based on 19th century photographs. The bricked up doorway in the northern elevation is a reminder of 1850s alterations including another covered way linking this building to the Colonial Magazine. Maritime alterations include the addition of windows. Like the Queen's Magazine, this building originally had timber shutters but no windows within the window openings. It is considered important to restore this detail to assist in the understanding and interpretation of the building.				
Roof	Exceptional	Gabled slate roof with lead ridgecapping in good condition (repairs undertaken in 1997 and 2003)	- periodic inspection of roof and flashings by slate roofing contractor and undertake repairs recommended by contractor	5
Floor	Exceptional	Timber shot boards (not tongue & groove)	- repair as necessary - periodic inspection and maintenance	1 5
Sandstone walls - external	Exceptional	Sandstone walls in good condition - repairs undertaken in 1997, include replacement of stone capping to both gable ends. Bricked up central opening in north elevation shows location of former access to covered way leading to the Colonial Magazine. Excavation around the building and restoration of the original drainage system is recommended.	- periodic inspection of stonework & repoint with soft lime mortar as necessary - excavate around the building and undertake restoration of original drainage system - retain bricked-up opening to north elevation as is (evidence of former covered way), unless a decision is made to reinstate a covered way to the Colonial Magazine	5 1* xx

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Walls - internal	Exceptional	Sandstone limewashed walls	- remove shelving from interior, following photographic recording. - Renew limewash to interior walls	1* 3
Doors	Exceptional/High	Entry door is copper sheathed. Internal timber doors are ledged & braced.	- check and repair as necessary	3
Windows and timber shutters	Moderate-Windows Exceptional-timber shutters	There are original internal timber shutters to the southern window. Window openings to east, west and south elevations are original, however these openings would not have originally contained glazing, just timber shutters	- photographically record windows then remove windows from window openings - repair/reconstruct timber shutters based on existing, and reinstall within window openings	1* 1*
Electrical wiring	Intrusive	Mid 20th century electrical wiring detracts from the appearance	- replace electrical wiring and relocate to reduce impact on external and internal appearance.	1*
Stores Building/2nd Cooperage (20)				
Built in 1839, this is also one of the core buildings of the Magazine complex, of exceptional significance. The loggia retains an early floor of shot boards, however the rooms at the north and south ends of the building have more recent concrete floors. The roof, originally slate and attached to the quarry face, is now detached and clad in corrugated steel with pairs of skylights over each of the end rooms.				
Roof	Moderate	Corrugated steel skillion roof detached from the quarry face behind the building, and with four skylights (two to each room). No guttering.	- renew roof with new corrugated steel roof	3*
Floors	Loggia-exceptional North and south rooms - intrusive	Loggia has an original shot board floor which is in need of repair (currently has several plywood patches). Both north and south rooms of the building have concrete floors, which exacerbates damp penetration in the building	- repair loggia floor with new boards to match existing - remove concrete floors from north and south rooms and replace with new timber floors (not necessary to match loggia flooring). - periodic inspection and maintenance of timber floors	1 1* 5
Doors	High	Both rooms have timber ledged & braced doors	- periodic inspection and repair	5
Sandstone walls - external	Exceptional	Repointing of sandstone was undertaken in 1997. Restoration of the original drainage system around the building is recommended (note: will require archaeological monitoring and approvals)	- periodic inspection, repair of mortar joints with lime-rich mortar mix as necessary - excavate around the building and undertake restoration of original drainage system	5 1*
Walls - internal	Exceptional	Sandstone walls in good condition	- periodic inspection, repair of mortar joints with	5

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
			lime-rich mortar mix as necessary - renew limewash to interior walls	5
Loggia sandstone columns	Exceptional	A pair of rectangular chamfered columns to the loggia mounted on a sandstone plinth edging the loggia, each with plain capitals. The base of each column is a separate (later) block, otherwise the columns are each single pieces of dressed stone	- periodic inspection	5
Windows	North – Exceptional South - moderate	The window to the northern room is an early 16-paned timber-framed window. The window to the southern room is a modern timber framed window with no glazing bars.	- carefully repair window to northern room - following photographic recording, replace existing window to southern room with new timber framed window based on design of window to northern room	1 1*
Electrical wiring	Intrusive/Moderate	Electrical lighting was originally installed in the building in 1927, however the southern room is now lit by fluorescent tube lighting. The loggia and northern room are lit via plain metal shades with lightbulbs (Maritime period). These are considered to be of moderate significance and may remain.	- renew electrical wiring and lighting to reduce impact on external and internal appearance - retain existing metal light fittings to loggia and northern room	1
Barracks (25)				
The Barracks, built 1838, is one of the core buildings of the Magazine Complex of exceptional significance. Its fabric evidences changes during the 19th and 20th centuries.				
Roof	High	Hipped slate roof repaired in 1997-99 and 2000 including complete refixing of slates and strengthening of roof beams	- periodic check for loose or delaminated slates. - refix or replace as necessary	3
Roof plumbing	moderate	Later copper guttering and downpipes	- periodic check and renewal	10
Floor	high	Floors throughout are timber, of varying ages	- periodic check and repair/replacement of floorboards as necessary	5
Sandstone walls - external	High	Dressed sandstone blocks with a sandstone plinth base course. Continuing damp penetration problems dating from the late 19th century.	- monitor damp penetration - periodic check and repointing of joints with lime-rich mortar	3 3
Walls - internal	High	Continuing damp penetration problems dating from the late 19th century.	- monitor damp penetration	3
Doors	Exceptional/High	Doors vary in age from early to late 19th century.		
Windows and	Exceptional/High	A number of windows have replaced doors, particularly in the	- prepare and repaint window frames	10

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Timber shutters		east elevation. These are of high significance. Earlier windows are of exceptional significance.	- periodic inspection and careful repair of window shutters - preparation and repaint window shutters	10 10
Internal joinery	Exceptional/High	Joinery is predominantly late 19th century	- preparation and repaint	10
Ceilings		Lath and plaster ceilings, predominantly late 19th century or early 20th century	- preparation and repaint	10
Loggia including columns	Exceptional	Loggia is stone flagged and features 4 sandstone Doric columns placed in pairs	- periodic monitoring of stonework and repair as necessary	10
Electrical wiring	Little	Electrical wiring	- check and replace wiring as necessary	5
fireplaces	High	Fireplaces vary in age from early to late 19th century. The earliest fireplace appears to be that in the Barracks room at the southern end of the building, most are late 19th century.	- reinstate missing detail to fireplace grates appropriate to the period of the mantelpiece detailing in each case	3
Fortified Wall & Sentry Box (71)				
The Fortified Wall, Sentry Box and Engravings are of exceptional significance as a crucial component of the Magazine complex,1833-1839. The engravings are evocative of the imperial regiments stationed at the Magazine complex from the 1830s to 1870.				
Sandstone	Exceptional	In 1998 and 1999 repair work was undertaken to the eastern, northern and southern faces of the wall, including replacement of a few stones, including to the upper part of the gateway, repointing work and the opening up of loopholes. In 2003 clearing of weeds and vegetation away from the western elevation of the wall and further repointing was undertaken. The detailed recommendations of the D. Young November 2007 report for 2 stage conservation works to the Wall and Sentry Box should be followed. This report should be referred to.	- periodic inspection, repair of mortar joints with lime-rich mortar mix as necessary	3
Coping	Exceptional	All mortar joints are in need of repointing. The detailed recommendations of the D. Young November 2007 report for 2 stage conservation works to the Wall and Sentry Box should be followed. This report should be referred to. The Wall: All the perpend joints in the coping of the wall will need to be repointed; monitoring for damage from earlier	- all perpend joints in the coping of the wall to be repointed with lime-rich mortar mix - monitoring for damage from previous inappropriate repointing work - periodic inspection, repair of mortar joints with lime-rich mortar mix as necessary	1 1 2

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
		inappropriate repointing work (D. Young, 2007);		
Gateway	Exceptional	The gateway has no gate. Early photographs show a timber gate in the gateway.	- reconstruct and install timber gate to detail from historic photographs	5
Sentry box and adjacent walling to the east	Exceptional	The sentry box and approx. 3 m of adjacent walling to the east are built of different sandstone to the remainder of the fortified wall. This different sandstone is more prone to weathering than the remainder of the wall. The detailed recommendations of the D. Young November 2007 report for 2 stage conservation works to the Wall and Sentry Box should be followed. This report should be referred to. The sentry box is in very poor condition with deep delamination of surface layers and weathering at corners. Use of hard cement mortar for mid 20th century "repair" has exacerbated weathering. Severe rising damp and salt attack has damaged lower courses of sandstone. The stringcourse and the dripstone over the opening are heavily decayed. Sentry Box: Trial removal of hard cement patches should be undertaken as part of developing a second stage of conservation works.	- urgent stonework restoration, with priority given to stones near the regimental graffiti, involving removal of cement-rich mortar and replacement with lime-rich mortar - excavate around sentry box and install or recover drainage system (will require archaeological monitoring and approvals)	1 3
Sentry box roof	Exceptional	The detailed recommendations of the D. Young November 2007 report for 2 stage conservation works to the Wall and Sentry Box should be followed. This report should be referred to. The Sentry Box roof is In poor condition	- repair, including replacement of deteriorated stonework and repointing of mortar joints with lime-rich mortar mix	1
Regimental graffiti/engravings	Exceptional	The regimental engravings are located on the Sentry (both interior and exterior) and along the northern (Magazine) side of the fortified wall in the vicinity of the sentry box. These engravings record the presence of imperial infantry and artillery regiments on the island from the 1830s to 1870. The condition of the engravings is fair to poor, however the decay of the Sentry Box threatens the engravings on the lower courses. The detailed recommendations of the D. Young November 2007 report for 2 stage conservation works to the Wall and	- urgent replacement of dripstone over sentry box entry to protect engravings - monitoring of stonework	1 3

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
		Sentry Box should be followed. This report should be referred to. Engravings: Conservation works to both the Fortified Wall and the Sentry Box are to place high priority on preservation of the 19th century engravings.		
Hammerhead Crane (9)				
The 1924 hammerhead crane is an element of exceptional significance on Goat Island, a landmark structure within Sydney Harbour. Consideration should be given to operational restoration of the crane (last in working order in 1988).				
Crane structure	Exceptional	Minor corrosion	- inspection and assessment by a structural engineer re safety and condition - check and treat for corrosion prevention. Replace any corroded and broken parts. - prepare and repaint	3 3 10
Crane cabin & catwalk	High	Severe corrosion of steel floor plates in cabin.	- replace corroded floor plates to catwalk and cabin floor	1
Water Police Station (47)				
The 1838 Water Police Station is the earliest extant Water Police Station in Australia, and of exceptional significance for its history. historical associations and design by an important Colonial Architect. The building was built with convict labour from sandstone quarried from Barney's Cut, in 1865 altered for use as a cartridge laboratory, and in the 20th century altered again for use by Maritime authorities. Its fabric reflects these stages of use. In 1997, the following works were carried out to the building: reroofing, joinery repairs, and removal of external paint from stonework.				
Main Roof	Exceptional	Hipped slate roof.	- periodic inspection of roof and flashings by slate roofing contractor and undertake repairs recommended by contractor	5
Verandah (east elevation)	Moderate	The verandah is an 1880s addition to the building, however most of its fabric has been replaced since. It has a skillion corrugated steel roof, 5 modern timber posts and a concrete floor.	- remove concrete floor and replace with timber flooring - prepare and repaint timberwork - check roofing and replace corrugated steel sheets and guttering as necessary	1* 10 5
Western porch	High	This is a weatherboard structure, with two walls and a skillion corrugated steel roof, which shelters the doorway in the west elevation. It was constructed between 1891 and 1905.	- periodic inspection and repair/replacement of boards or roofing sheets as necessary	5

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
			- preparation and repaint of weatherboards	10
Floors	High	Floors are timber throughout, of varying ages	- periodic inspection and repair/replacement of boards to match existing, as necessary	5
Sandstone walls - external	Exceptional	Sandstone walls are predominantly original, however various openings were blocked up with sandstone in 1865 when the building was converted to a cartridge laboratory. This evidence of the building's history is also of exceptional significance.	- excavate around perimeter of building to restore original ground level and insert drainage system (includes archaeological approvals and monitoring) - inspect and repair mortar joints with lime-rich mortar as necessary - see recommendations of D. Young, November 2007 *Goat Island Queen's Magazine & Water Police Station: Initial condition assessments and recommendations for further investigations* for further details	1* 3
Weatherboard Extension	Intrusive	This is a later weatherboard addition with a skillion corrugated steel roof to the south elevation, which detracts and is recommended for demolition/removal	- demolish weatherboard extension	1*
Walls - internal	High	Plaster	- inspect and repair plaster damage as necessary - prepare and paint following analysis of existing paint composition and colours	5 1, 5
Ceilings	High	Wide timber tongue & grooved boards	- preparation and repainting	10
Internal joinery	High	Skirting boards and architraves are generally simple	- preparation and repainting	10
Doors	High/Little	Doors are timber ledged and braced 19th century, or timber panelled, early 20th century, and of high significance, except for the hollow-core door into the southern extension, which is of little significance and should be removed. Entry doors from the west (within western porch are a pair of glazed French doors which appear to be early 20th century.	- remove hollow core door in south elevation and replace with new door to match existing early doors. This will need to take place in conjunction with the demolition of the southern extension. Note this is an early doorway, though the door itself is modern. - Prepare and repaint all doors	1
Windows	Exceptional/High	Windows vary in age, however most are 19th century or early 20th century, and reflect historic changes to the building in 1865 and after 1901.	- prepare and repaint all windows frames	5

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Electrical wiring	Little	Need to ensure electrical wiring is unobtrusive	- periodic check and replace as necessary, ensuring new wiring is unobtrusive	5
Fireplaces	High	Fireplace mantelpieces vary in age from the 19th to the early 20th century	- prepare and repaint or varnish timber mantelpieces as appropriate	5
Harbour Master's Residence (39)				
The Harbour Master's Residence is in good structural condition overall, however in need of extensive conservation work to guttering, downpipes, windows, doors, interior plasterwork, painted surfaces and flooring to rectify general neglect, termite and plaster damage and reinstate missing details.				
Roof	Exceptional	Hipped and gabled unglazed terracotta tiling with terracotta ridge cappings to the main roof. Terracotta shingles to the viewing tower and dormer window (replaced 1998). Roof repairs were undertaken in 1993, 1998 and 2000, including replacement of terracotta chimney pots in 2000.	- check terracotta tiling, shingles and ridge capping and replace as necessary - check valleys and flashings and replace as necessary	3 3
Roof plumbing	Moderate	Guttering and downpipes were replaced in 1993. Guttering is now sagging and full of leaves. Sections of downpipes are missing in various locations.	- guttering replacement and refixing - replacement of downpipes missing sections	1 1
Floors	High	Floors are timber throughout; termite damaged in some rear ground floor rooms. Some floor coverings remain (eg. damaged linoleum to Bedroom 1).	- remove floor coverings. Replace floorboards as necessary, to match existing	1
Termite treatment	xx	There has been extensive termite damage to floorboards in rear ground floor rooms	- termite inspection and treatment using non-toxic bait traps - periodic follow-up termite inspections and treatment as recommended on inspection	1 5
Brick walls and sandstone foundations, weatherboard walls - external	Brick and sandstone – High Weatherboard - moderate	The walls are generally in good condition. Brick walls to the main elevations are unpainted face brick. The brick walls to the rear elevation (west) are painted brick. There is one brick loose in the east elevation wall near the front door. Paint is flaking from rear weatherboard walls to service areas.	- check mortar and repoint as necessary with lime-rich mortar, - refix/remortar loose brick to east elevation (near front door) - repaint brick walls to the west (rear) elevation	5 1 1, 10
Walls – internal & ceilings internal	High	There are numerous patches of damaged plasterwork to both walls and ceilings throughout the building. The stairway walls are smoke-damaged from a previous fire.	- plaster repair to walls and ceilings, repainting - reinstate missing plaster vent to original design in 1st floor stair hall - Repair and repaint plasterwork	1 1 10

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Doors	High	Timber doors are generally original throughout, with few exceptions. There is extensive missing door furniture (finger plates, doorknobs, escutcheons) however enough remains for reconstruction and reinstatement of these missing details.	- prepare and repaint doors throughout - remove flush door accessing northern bathroom (ground floor) and replace with new timber panelled door to match existing - carefully fabricate new door furniture (fingerplates, doorknobs and escutcheons) to match existing and reinstate throughout the building. Remove paint from existing door furniture and refinish appropriately (for example, dark varnish to finger plates).	1 1 1
Windows	High except for 1st floor windows to dormer - moderate	All windows are timber-framed and most are original (casement windows to first floor bedrooms are not original), in varying stages of deterioration. Sash cord repairs are required to all double-hung windows. Some windows have damaged glazing. Windows to the viewing tower are so weathered that replacement is required.	- repair all timber-framed double-hung windows as necessary, including new glazing to replace damaged glazing, new sash cords, preparation and painting - replace windows to viewing tower with new timber-framed windows to match existing. Reuse existing window furniture on new windows. Prepare and paint. - consider replacement of 1st floor casement windows with new timber-framed windows to original design. In the short term, repair and repaint existing windows	1 1 5
Stair	Moderate	The stair is relatively new and in good condition, having been replaced in 1998 following a fire. The stair timberwork however is in need of refinishing.	- refinish stair timberwork	3
Electrical wiring	Little	The building requires complete electrical rewiring	- rewire building using discreet new power points - new lighting fittings to be plain (eg. milk glass) in a style sympathetic to the period of the building - evidence of servant bell system to remain in situ. Consider making servant bell system operational	1 1 3
Fireplaces	High	The building contains a number of original mantelpieces however some replacements have been installed. 5	- strip paint from timber mantelpieces and refinish with dark varnish	3

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
		mantelpieces have been restored and reinstated in 1999. Fireplaces are missing from the two first floor bedrooms.	- consider reinstatement of fireplaces to first floor bedrooms, to detail based on existing bedroom mantelpieces on the ground floor	5
Rear verandah	Moderate	The rear verandah, on the southern elevation of the building, has been partially enclosed with plywood sheeting to provide protection to the entry to the former "married couple's quarters". There is termite damage to the timber tongue & groove ceiling of the rear verandah.	- remove plywood sheeting - repair and replace floorboards and ceiling boards as necessary	1 1
Rear service rooms – pantry, kitchen, laundry and 2 bathrooms	Moderate	These rooms are in extensive disrepair, including termite damage to floorboards, plaster damage to ceilings. The concrete floored laundry contains a copper, later concrete laundry tubs and a later hw system. The concrete floored bathroom has a tongue & grooved raked ceiling, part weatherboard, part brick walls.	- treat termite damage; replace damaged boards to floors and ceilings. - repair plaster to walls and ceilings as necessary and prepare and paint internal walls and ceilings - leave fitout of these areas until new uses are determined.	1 1 1
BUILT ELEMENTS OF HIGH SIGNIFICANCE				
Scow Shed (16)				
The c. 1925 Scow Shed is, with item 22, one of the few extant buildings from the SHT conversion of the magazine area for a shipyard. It is a robust open industrial structure of high significance however it adversely impacts on the fabric and setting of the Queen's Magazine. If a decision is made to retain the building, then the following maintenance should be undertaken. Moveable contents need to be assessed for significance.				
Roof & gable ends	Roof form – high; Roof cladding - high	Gabled roof of rusting corrugated zinc-coated steel roofing. Gable ends are also clad in corrugated steel sheets. Rusting pattern indicates roofing and gable end sheets are original, and should be retained if possible	- short term, check, prepare, repaint roofing sheets. Consider replacement of roofing with welsh slate	1
Structure	High	Timber columns with bases encased in concrete, timber trusses, metal plates and bolts,	- check and repair as necessary	10
Roof plumbing	Little	Box gutter has been removed from western side.	- check and ensure guttering and downpipes are sound and discharge away from buildings. Replace guttering and downpipes as necessary	1
Gantry crane	High	Unusual use of timber framing to support an overhead crane	- check for corrosion and treat if necessary	5
Electrical wiring	Moderate	Meter box, conduiting, two large pendant lights within each bay	- retain light fittings. Check and replace wiring and meter box as necessary	5

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Colonial Magazine (21)				
The 1850s Colonial Magazine retains its overall form, however much of its original fabric is missing. The building operates as a partially open shed rather than as an enclosed building. The building had much of its sandstone walling removed for conversion for shipyard use by the SHT in 1925. Originally slate roofed, it was re-roofed in corrugated steel in 1925 by the SHT. Due to extensive alteration to the fabric, while still a significant building, the building lends itself to adaptive reuse. The eastern extension to the building detracts, and should be demolished.				
Roof	Roof form – high; roof cladding - moderate	3 gabled bays with box gutters in valleys, roofed in corrugated steel. East addition has a skillion corrugated steel roof	- short term, check and replace any deteriorated roofing sheets. Consider replacement of roofing with welsh slate	1
Roof plumbing	Moderate	Rainwater heads are in poor condition. Downpipes discharge directly onto the ground adjacent	- repair roof plumbing to existing detail and direct stormwater away from the building	1*
Floors	Concrete – little; timber - high	Concrete floor to western and central bays. The eastern bay has no floor in one section, with original sandstone foundations exposed. The flooring in the remainder of the eastern bay is timber, supported on hardwood joists sitting on sandstone wall piers. The floor of the eastern skillion extension is also timber.	- retain and repair timber floor to eastern bay as necessary - consider removing part of concrete flooring adjacent to sandstone wall nibs in central and western bays and replace these sections with timber flooring.	3 3
Timber beams and roof structure	High	Repairs were undertaken in 2001.	- check and make repairs as necessary	5
Steel structure & columns and overhead beams for running equipment	Moderate	This fabric is part of the Maritime period industrial character of the building.	- retain this fabric. Check for corrosion and treat with rust retardants	1, 5
Sandstone walls	Exceptional	Crude old mortar repairs have damaged the sandstone, mortar is in need of repair in many locations	- remove cement-rich mortar where present and replace with lime-rich mortar - periodic inspection, repair of mortar joints with lime-rich mortar mix as necessary	1 1
Corrugated steel and corrugated translucent sheeting walls	Little	This fabric is of little significance and may be removed, repaired or replaced with new lightweight fabric with a similar industrial character. It appears from 1950s photographs that	- decisions to repair or replace this fabric is dependent on the future use of the building. If future use necessitates replacement of this fabric, new fabric should be lightweight and with	3

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
and glazing to western wall		the western end of the building was open at that time.	a similar industrial character. If no future use decided within 3 years, check and replace any rusted sheeting, repair windows as necessary. Removal of the fabric is also an option.	
Kitchen Cottage (26)				
The core of the Kitchen Cottage is the 1838 barracks kitchen, with later (early 1860s) sandstone additions east of the original two room structure. Maritime period extensions to the south, east and north elevations are of moderate significance in themselves. The last addition was the 1956 sunroom on the east elevation.				
Main Roof	Exceptional	L shaped hipped slate roof with galvanised steel flashings and valleys, and 2 chimneys, the western chimney being the original.	- periodic inspection and refixing of slates, renewal of flashing and valleys - periodic inspection of chimneys for loos mortar, loose paint. Repair mortar, prepare and repaint as necessary	5 5
Extension roofs	Moderate	Corrugated steel skillion roofs to north and south. Eastern skillion roof of channelled steel. One later chimney on northern extension	- periodic inspection and repair as necessary - check brick chimney for loose mortar, repair mortar, repaint	5 5
Roof plumbing	Moderate	Guttering and downpipes are deteriorated and discharge rainwater next to the building	- replace all guttering and downpipes and ensure downpipes discharge water away from the building - periodic inspection and repair as necessary of guttering and downpipes	1 10
Sandstone walls - external	Exceptional	Sandstone walls include original 1838 walls and later 1850s/early 1860s sandstone walls to the east of the original section of the building.	- excavate along western perimeter of sandstone walls to recover original ground levels and install drainage - inspect and repair mortar joints with lime-rich mortar as necessary	3 3
Other walls - external	Moderate	There is some cracking to brick walls, particularly where brick additions join onto earlier sandstone walls	- fill cracks, repaint rendered walls - periodical inspection for further movement	1 10
Floors	Moderate/Little	Timber, varying ages moderate significance; concrete floors, little significance	- periodic inspection, repair as necessary	10
Windows	Exceptional/ Moderate	Two windows to the western wall are original, and these are of exceptional significance. All other windows are later and reflect changing use of the building over time.	- periodic inspection, prepare and repaint as necessary	10

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Electrical wiring	Little	Ensure electrical wiring is unobtrusive	- periodic check and replace as necessary, ensuring new wiring is unobtrusive	5
Ship Repair Workshop (1)				
The Ship Repair Workshop is of high significance as a rare workshop building in Sydney Harbour fronting a broadside wharf, and as evidence of the 1940s MSB upgrading of the Goat Island shipyard. It is an industrial structure and while the overall form and structure is significant, replacement of like for like where existing materials are deteriorated is considered an acceptable approach to maintenance.				
Roof and parapet	High	Corrugated steel clad sawtooth roof in generally good condition	- check roof for corrosion - reclad with corrugated steel as necessary	1
Walls	High	Timber boarding & corrugated steel clad walls in generally good condition	- check walls for corrosion and deterioration - reclad with corrugated steel or weatherboards as necessary - prepare and repaint	1 1 3
Structure	High	Corrosion damage to some members evident	- check for corrosion and prepare and treat with rust preventative	1
Windows	High	Timber framed windows	- prepare and paint timber window frames using gloss acrylic paint. - replace any deteriorated windows with new windows to match	3 10
Cottage/Artillery Sergeant's Cottage (46a)				
Built of sandstone in 1865 to house staff associated with the conversion of the Water Police Station to a cartridge laboratory at that time, this is a small simple building of high historical significance. Later modifications of little or no significance are: paint to stonework, window alterations, modern internal flush doors; kitchen fitout to western room, clothing racks to eastern room; brickwork to increase height of chimney (probably circa 1912); later electrical wiring. Various previous additions to the building have since been removed. Various windows have been altered, and some are original.				
Roof	High	Corrugated steel hipped roof	- periodic inspection and appropriate replacement of rusted sheets as necessary with new corrugated steel sheets	10
Chimney	High	The single central chimney is rendered, with a later brick addition to increase its height. The lower part is original.	- periodic inspection to check for loose mortar. Repair mortar with lime-rich mortar as necessary. Prepare and repaint	10
Roof plumbing	Moderate	Guttering and downpipes appear to be in good condition	- periodic inspection and appropriate	10

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
			repair/replacement as necessary	
Floors	High	Timber floors	- periodic inspection and appropriate repair/replacement of boards as necessary	10
Ceilings	High	Timber tongue & grooved board ceilings	- periodic inspection and appropriate repair/replacement of boards as necessary	10
Sandstone walls - external	High	Sandstone walls have been painted blue	- carefully strip paint from walls using Peel Away to restore original appearance. Note this process is likely to reveal past fenestration alterations, which may assist in interpretation of changes over time. - periodic inspection and repair of mortar joints as necessary with lime-rich mortar	1* 5
Walls - internal	High	plaster	- periodic inspection and appropriate repair as necessary, preparation and repainting	10
Doors	High/little	Main entry doors (a pair of ledged & braced doors) appear early and are of high significance. Two internal doors are both hollow-core modern doors of little significance.	- periodic inspection, repair and repaint of entry door as necessary - when funds allow, replace internal hollow core doors with new single timber ledged & braced doors similar in design to entry doors	5 1*
Windows & fanlight	High/Moderate	Windows are timber framed double hung windows, and vary from original 19th century 12-paned windows to simple sashes with no glazing bars from the mid 20th century	- periodic inspection, repair as necessary, prepare and repaint window frames	10
Electrical wiring	Little	Modern electrical wiring	- periodic inspection and replacement of wiring as necessary. New wiring to be unobtrusive.	5
fireplaces	High		- open up fireplace to northern room, remove shelving to fireplace in southern room. Reinstate mantelpiece to southern room fireplace based on design of northern room mantelpiece. Prepare and repaint	3
Interior fittings	Little	c. 1970s kitchen to northern room, clothing racks to southern room – of little significance	- photographically record and then remove these fittings	3
Verandah	Moderate	The verandah appears to have been added by 1902. It has a skillion corrugated steel roof, timber boarding to each end,	- demolish concrete floor and replace with timber	1*

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
		timber posts and a concrete floor. The southern end of the verandah abuts the southern wall of Building 46b Fire Brigade Barracks.	boarding - periodic inspection of timber posts, roofing. Repair as necessary	5
Barracks/Fire Brigade Barracks (46b)				
Built in 1912, this is one of the main buildings on the Island dating from the Sydney Harbour Trust phase. Due to 1960s alterations, the interior is of little significance, and capable of adaptation to new uses. The exterior is relatively intact, however with some altered window and door openings. The reinstatement of window openings windows which have been altered to the original form is considered a high priority.				
Roof	High	Gabled slate roof, last repaired in 2003 (renailing of slipped slates, replacement of some slates)	- check and repair as necessary	5
Roof plumbing	Moderate	Guttering and downpipes	- check and clean out - check for corrosion. Replace as necessary	1 10
Floors	Moderate	Timber floors with vinyl floor covering. Evidence of damage from dampness near the main entry door.	- check for deterioration and replace as necessary	5
Face brick walls - external	High/little	In good condition except for the western wall. New brickwork inserted where windows have been shortened in height is of little significance. Along the western wall there is evidence of water pooling after rain.	- redirect stormwater to prevent pooling against the western wall - periodic inspection of mortar. Repointing of deteriorated mortar with lime-rich mortar	3 10
External joinery – barge boards, imitation half timbering to gable ends, eaves, rafter ends	High	In reasonable condition (paint flaking)	- preparation and repainting	1, 10
Interior walls & ceilings	Little	Interior walls are plastered, ceilings date from 1963. Depending on future use of the building, interior is capable of alteration due to little significance of fabric	- preparation and repaint	10
Interior fitouts to showers and toilets	Little	Fabric dates from 1963 conversion of building for amenities for MSB dredge workers. Removal and replacement subject to future use of building	- maintain as is until future use of building determined.	3
Doors	High/little	All internal doors are 1960s hollow core doors of little significance. The main entry door is also 1960s and of little	- doors of little significance may be maintained or replaced, depending on future use of the	10

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
		significance. The single early door in the building is a timber ledge & braced door on the eastern elevation, which is of high significance.	building. - preparation & repainting of door to the eastern elevation	
Windows	High/little	Timber framed double hung windows are original and of high significance. These have plain lower sashes, 4-paned top sashes. Some window openings have been shortened and glass louvres inserted into the openings within timber frames. These are of little significance.	- maintain original windows through inspection, repair, preparation & painting - where window openings windows have been altered in the 1960s, reconstruct original form if possible as part of any proposed adaptive reuse.	10
Electrical wiring	Little	Modern electrical wiring	- periodic inspection and replacement of wiring as necessary. New wiring to be unobtrusive.	5
Residential Cottages 38a – 38d				
These four modest brick cottages have a visual and historical relationship to the Harbour Master's Residence and are also significant for their historical use as accommodation for Maritime fire brigade staff and their families. Cottages 38a to 38c were built in 1916, cottage 38d in 1922, which is reflected in the design of the cottages.				
Residential Cottage No. 1 (38a)				
Roof	High	Unglazed terracotta hipped roof with transverse gablets to apex, skillion verandah roof as a continuation of the main roof. Rear section skillion corrugated steel roof. Repair of ridge capping and tile replacement to the roof was last undertaken in 1993.	- periodic inspection and repair through refixing, replacement to match existing of terracotta tiles or roofing sheets	10
Chimney	High	Roughcast stuccoed chimney	- preparation and repainting	10
Roof plumbing	Little	There are holes in the guttering on the east elevation of the cottage, and some downpipes are rusting.	- replace guttering and downpipes. Ensure downpipes discharge away from the building (and preferably via a rainwater tank) - periodical check and repair/replacement as necessary of guttering and downpipes	1 10
Floors	High	Most floor are timber tongue & grooved and original	- periodic inspection, repair and replacement of boards as necessary	10
Brick walls – external & brick dwarf posts to verandah	High	Face brick walls	- periodic inspection of mortar, repointing with lime-rich mortar as necessary	10

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Verandah	High	Timber posts and balustrade, tongue & groove board ceiling	- periodic inspection, repair, preparation and repainting in acrylic gloss paint	1, 10
Walls - internal	High	plastered	- periodic inspection, repair, preparation & repainting of plasterwork	10
Doors	High	Most doors are timber 4 panelled and original. The front southern bedroom has no door, and the timber flyscreen door is missing from the exit door to the rear hallway. Front and main rear doors (from rear hall) are 6-panel with two upper panels glazed, and feature fanlights. Front door also features a sidelight.	- periodic inspection, repair, preparation and repainting	10
Windows	High	Original windows, however some glazing and some sashes need replacement	- replace broken sashes/glazing - replace all sash cords with new traditional sash cords & ensure all windows are operable - periodic inspection, repair, preparation and repainting of window frames	1 1 1,10
Ceilings	High	Original ceilings in all main rooms feature ceiling roses and no cornices	- repair and repaint as necessary	10
Fireplaces	High	A pair of fireplaces to south-eastern bedroom and main living area, and a hearth in the kitchen	- retain and reinstate missing detail	1, 10
Interior fitout to kitchens, bathrooms, laundry	Little	Interior fitout to service areas is of little significance and may be replaced as necessary for adaptive reuse of the building. Evidence of old termite damage to kitchen cupboards	- termite inspection and action as recommended.	5
Electrical wiring	Little	Modern electrical wiring	- periodic inspection and replacement of wiring as necessary. New wiring to be unobtrusive.	5
Rear weatherboard addition	Little	Weatherboard rear addition is of little significance and may be removed or repaired as necessary, depending on requirements of future use of the building	- repair as necessary short-term	1
Residential Cottage No. 2 (38b)				
In relatively good condition, this cottage has had two ceilings replaced with modern gyprock ceilings and modern ceiling roses. While not significant, these ceilings resemble the originals and are not intrusive.				
Roof	High	Unglazed terracotta hipped roof with transverse gablets to	- periodic inspection and repair through refixing,	10

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
		apex, skillion verandah roof as a continuation of the main roof. Rear section skillion corrugated steel roof.	replacement to match existing of terracotta tiles or roofing sheets	
Chimney	High	Roughcast stuccoed chimney	- preparation and repainting	10
Roof plumbing	Little	Guttering and downpipes appear to be in relatively good condition	- periodical check and repair/replacement as necessary of guttering and downpipes	10
Floors	High	Most floors are timber tongue & grooved and original, but carpeted. Carpet is of little significance and may be removed or replaced.	- periodic inspection, repair and replacement of boards as necessary	10
Brick walls – external & brick dwarf posts to verandah	High	Face brick walls	- periodic inspection of mortar, repointing with lime-rich mortar as necessary	10
Verandah	High/Moderate	Verandah is partially enclosed at the southern end, however enclosure appears to be relatively early (SHT phase) and therefore of moderate significance. Timber posts and balustrade, tongue & groove board ceiling, weatherboards and fixed windows to verandah enclosure. The verandah floor needs repair.	- periodic inspection, repair, preparation and repainting in acrylic gloss paint - repair verandah floor with new boards to match existing	1, 10 1
Walls - internal	High	Plastered	- periodic inspection, repair, preparation & repainting of plasterwork	10
Doors	High	Most doors are timber 4 panelled and original. The front southern bedroom has no door, and the timber flyscreen door is missing from the exit door to the rear hallway. Front and main rear doors (from rear hall) are 6-panel with two upper panels glazed, and feature fanlights. Front door also features a sidelight.	- reinstate missing door to front southern bedroom, to design of doors to other bedrooms, and timber flyscreen door to rear - periodic inspection, repair, preparation and repainting	1 10
Windows	High	Original windows except for glass louvres installed in window opening to toilet	- replace all sash cords with new traditional sash cords & ensure all windows are operable - periodic inspection, repair, preparation and repainting of window frames	1 1,10
Ceilings	High/Little	Original ceilings feature ceiling roses and no cornices and are of high significance. This cottage has modern ceilings to the front hall and main living room, which are of little significance.	- periodic inspection, repair, preparation & repainting of plasterwork	10

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
		The kitchen ceiling needs repair.		
Interior joinery	High	Architraves and skirting boards and picture rails are original	- periodic inspection repair, preparation & repainting	10
Fireplaces	High	Fireplaces to south-eastern bedroom and main living area, and a hearth in the kitchen	- retain and reinstate missing detail	1, 10
Interior fitout to kitchens, bathrooms, laundry	Little	Interior fitout to service areas is of little significance and may be replaced as necessary for adaptive reuse of the building.	- termite inspection and action as recommended.	5
Rear weatherboard addition	Little	Weatherboard rear additions are of little significance and may be removed or repaired as necessary, depending on requirements of future use of the building	- repair as necessary short-term	1
Electrical wiring	Little	Modern electrical wiring. In 1993 all power outlets and switches were replaced and circuit breakers installed	- periodic inspection and replacement of wiring as necessary. New wiring to be unobtrusive.	5
Residential Cottage No. 3 (38c)				
This cottage is in the worst condition of the cottages in the group 38a-38d and requires extensive conservation work. While in poor repair, the cottage is very original.				
Roof	High	Unglazed terracotta hipped roof with transverse gablets to apex, skillion verandah roof as a continuation of the main roof. Rear section skillion corrugated steel roof.	- periodic inspection and repair through refixing, replacement to match existing of terracotta tiles or roofing sheets	10
Chimney	High	Roughcast stuccoed chimneys (2)	- preparation and repainting	10
Roof plumbing	Little	Guttering and downpipes require replacement. Guttering is deteriorated all along the southern elevation	- repair/replacement as necessary of guttering and downpipes - periodical inspection and replacement as necessary	1 10
Floors	High	Most floors are timber tongue & grooved and original	- periodic inspection, repair and replacement of boards as necessary	10
Brick walls – external & brick dwarf posts to	High	Face brick walls. Brickwork to the front wall needs repointing now.	- repoint front wall with lime-rich mortar - periodic inspection of mortar, repointing with	1 10

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
verandah			lime-rich mortar as necessary	
Verandah	High/Moderate	Verandah is partially enclosed at the southern end, however enclosure appears to be relatively early (SHT phase) and therefore of moderate significance. Timber posts and balustrade, tongue & groove board ceiling, weatherboards and fixed windows to verandah enclosure.	- periodic inspection, repair, preparation and repainting in acrylic gloss paint	1, 10
Walls - internal	High	Plastered. Skirting “boards” are plaster and part of the wall.	- periodic inspection, repair, preparation & repainting of plasterwork	10
Doors	High/intrusive	Most doors are timber 4 panelled and original. The front door is a modern hollow core door which is intrusive.	- reinstate front door to detail based on front doors of Cottages 38a and 38b - periodic inspection, repair, preparation and repainting	1 10
Windows	High	Original windows, except for obscure glass inserted to bathroom window, and blocked up pantry window	- repair pantry window and repaint frame - replace all sash cords with new traditional sash cords & ensure all windows are operable - periodic inspection, repair, preparation and repainting of window frames	1 1 1,10
Ceilings	High/Little	Original plaster ceilings feature ceiling roses and no cornices and are of high significance. Ceilings to the main living area and all bedrooms are damaged and in need of repair. The main living area ceiling appears to remain above a later masonite ceiling.	- repair damaged ceilings, preparation and repaint ceilings throughout - remove masonite from living area ceiling, repair and repaint original ceiling. - periodic inspection, repair, preparation & repainting of plasterwork	1 10
Interior joinery	High	Architraves and picture rails are original	- periodic inspection repair, preparation & repainting	10
Fireplaces	High	Fireplaces to south-eastern bedroom and main living area, and a hearth in the kitchen	- retain and reinstate missing detail	1, 10
Interior fitout to kitchens, bathrooms, laundry	Little	Interior fitout to service areas is of little significance and may be replaced as necessary for adaptive reuse of the building.	- termite inspection and action as recommended.	5
Rear	Little	Weatherboard rear additions are of little significance and may	- repair as necessary short-term	1

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
weatherboard addition		be removed or repaired as necessary, depending on requirements of future use of the building		
Electrical wiring	Little	Modern electrical wiring	- periodic inspection and replacement of wiring as necessary. New wiring to be unobtrusive.	5
Residential Cottage No. 4 (38d)				
This modest brick 1922 cottage differs in detail to the 1916 cottages, and is in reasonable condition overall.				
Roof	High	Hipped unglazed terracotta tiled roof with change to pitch to extend over front verandah. Brick rear service wing has a skillion corrugated steel roof	- periodic inspection and repair through refixing, replacement to match existing of terracotta tiles or roofing sheets	10
Roof plumbing	Little	Guttering and downpipes appear to be in good condition	- periodical inspection and replacement as necessary	10
Floors	High	Most floors are timber tongue & grooved and original	- periodic inspection, repair and replacement of boards as necessary	10
Brick walls – external & brick dwarf posts to verandah	High	Face brick walls.	- periodic inspection of mortar, repointing with lime-rich mortar as necessary	1 10
Verandah	High/Moderate	Verandah is enclosed, however enclosure appears to be relatively early (SHT phase) and therefore of moderate significance. The verandah features a timber tongue & groove ceiling. The verandah floor and floor structure requires replacement, along with the front timber steps which no longer trafficable.	- replace verandah floor structure and floor, and front timber steps - periodic inspection, repair, preparation and repainting in acrylic gloss paint	1, 10
Walls - internal	High	Plastered.	- periodic inspection, repair, preparation & repainting of plasterwork	10
Doors	High/intrusive	Most doors are timber 4 panelled and original. The front door to the enclosed verandah is a modern hollow core door which is intrusive.	- replace front door to verandah with a simple door more sympathetic to the style of the cottage - periodic inspection, repair, preparation and repainting	1 10

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Windows	High	Original timber windows, some casement, some double hung, except for verandah enclosure windows, which are of varying age.	- ensure all windows are operable - periodic inspection, repair, preparation and repainting of window frames	1 1,10
Ceilings	High/Little	Original 1920s timber battened ceilings	- periodic inspection, repair, preparation & repainting of plasterwork	10
Interior joinery	High	Architraves and picture rails are original	- periodic inspection repair, preparation & repainting	10
Fireplaces	High	Fireplaces to main living room only	- retain	
Interior fitout to kitchens, bathrooms, laundry	Little	Interior fitout to service areas is of little significance and may be replaced as necessary for adaptive reuse of the building.	- termite inspection and action as recommended.	5
Electrical wiring	Little	Modern electrical wiring	- periodic inspection and replacement of wiring as necessary. New wiring to be unobtrusive.	5
Waiting Shed (127)				
This is a simple timber framed waiting shed with an opening onto Ferry Wharf 54a				
Walls	Moderate	Timber vertical weatherboards	- prepare, repair and repaint in gloss acrylic	10
Windows	Moderate	Two timber framed casement windows (in north and west elevations) with four coloured glass panes to top half, and clear glass pane with slightly curved top to the lower half of each window.	- prepare, repaint with gloss acrylic	10
Roof	Moderate	Gabled terracotta tiled roof	- check and replace deteriorated tiles	5
Roof plumbing	Little	Guttering has rusted out and requires replacement	- replace guttering, thereafter periodically check and clear	1
Interior seating	Moderate	Timber seat	- prepare and repaint	10
BUILT ELEMENTS OF MODERATE SIGNIFICANCE				
Office & Amenities Building (14)				
This 1948 building is of moderate significance, an important component of the 1940s MSB upgrading of the shipyard, though poorly located in relation to the powder				

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
magazine buildings. In June 1998 window repairs and painting of interior and exterior timberwork was undertaken.				
Roof	High	Hipped terracotta tiled roof	- check tiling and refix tiles as necessary	10
Roof plumbing	Little	Guttering, downpipes	- check integrity of guttering and downpipes. Replace as necessary to existing profiles	10
Floor	Moderate	Internal timber flooring covered with vinyl	- maintain/replace flooring and floor finishes as necessary. Replacement floor boards to match existing .	10
Walls - external	High	Brick walls, unpainted, in good condition	- check mortar joints and repair as necessary	10
Walls - internal	Moderate	Fibrous plaster wall finish	- prepare and paint	10
Doors	Moderate	Timber	- prepare and paint	10
Windows	Moderate	Timber framed windows last painted in 1998	- prepare and paint frames	10
Loggia and other external timberwork	High	External timberwork last painted 1998	- prepare and paint	10
Ceilings	Moderate	Fibrous plaster ceilings	- prepare and paint	10
Electrical wiring and fittings	Little	Modern, including fluorescent lighting	- check and repair as necessary	10
Amenities Building/Timber Store (22)				
Of moderate significance, this weatherboard c. 1925 building, along with the Scow Shed (16), is one of the two extant Sydney Harbour Trust shipyard buildings. It was the first shipyard amenities building, superseded by the 1948 Office and Amenities building (14).				
Roof	Moderate	Hipped corrugated steel main roof with skillion corrugated steel roofs at both east and west ends, and a low pitched corrugated steel roof to the water tank tower at the north-western corner. Corrugated steel roofing was replaced in 1998 and 2003, and the roofing steel is therefore modern.	- check for corrosion and repair/replace roofing sheets as necessary	10
Roof plumbing	Little	Guttering was replaced in 1998, and is therefore modern.	- check and clear guttering of leaves - check for corrosion and replace sections of guttering/downpipes as necessary	1 10
Floor	High	Timber tongue & groove board floors except to skillion roofed areas at east and west ends, which have concrete floors	- check and replace deteriorated timber boards as necessary	5

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Walls - external	High	Horizontal weatherboards	- prepare and paint with gloss acrylic - check and replace deteriorated boards as necessary	10 5
Walls - internal	High	Some wall linings are weatherboard, some are ripple iron	- -check and replace deteriorated boards as necessary - check for corrosion to ripple iron.	5 5
doors	High	Doors are timber, ledged & braced	- prepare and paint with gloss acrylic	10
Windows	High	Timber framed double hung windows with horizontal glazing bars and obscure glass, interspersed with window openings holding metal louvres, and glass louvred window openings in the skillion roofed additions to the east and west ends.	- prepare and paint timber framing with gloss acrylic - check metal louvres for corrosion. Repair and paint with rust preventative	10 10
Ceilings	High	The are no ceilings to most of the building. Only the two shower rooms in the north-western corner have ceilings, which are of timber tongue & grooved boards	- prepare and paint with gloss acrylic	10
Electrical wiring	-	The building has no electrical wiring system.	- the building requires installation of electrical wiring in relation to any new use	10
Boat Shed (23a)				
This 1943 boatshed is of moderate significance, as one of the 1940s MSB structures built on the Island. It is a brick building tucked into the shore below the Barracks (25). The building has a gabled corrugated steel roof and three timber double doors facing west. The brickwork and brick foundations are affected by wave action and much of the mortar has washed out of the lower courses of brickwork. This building is clearly very vulnerable to climate change related sea level rise, and currently not in good condition. A decision should be made to either conserve or at least partially demolish the structure. Due to the proximity of significant archaeological sites (68, 95) any decision should be based on archaeological advice. Works outlined below should be undertaken if a decision is made to keep the building.				
Roof	Moderate	Gabled corrugated steel	- check for corrosion and repair/replace roofing sheets as necessary	10
Roof plumbing	xx	There is now no guttering on the building	- install guttering - check guttering for leaves & debris and clear out	1* 1
Walls	Moderate	Brickwork	- repair foundations/replace missing brickwork with bricks to match where damaged - remortar brickwork where mortar has washed	1* 1*

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
			out with a mortar of appropriate mix - periodic check and repair mortar where damaged	5
Doors	Moderate	Three pairs of timber tongue & grooved double doors	- prepare and repaint in acrylic gloss	5
Transformer House/Substation (24)				
This is a utilitarian 1943 substation building of moderate significance which has been designed to complement the nearby colonial Barracks building (25). It is in good condition overall.				
Roof	Moderate	Gabled corrugated steel	- check roof for corrosion and reclad with corrugated steel as necessary	10
Roof plumbing	Moderate	Guttering replaced on the western side in 1993.	- check and clear guttering of leaves - check for corrosion and replace sections of guttering/downpipes as necessary	1 10
Eaves	High	Wide timber tongue & groove boarded eaves	- prepare and paint with gloss acrylic	10
Walls	High	Rendered brick walls with segmental arch recesses, drip moulds. Exterior repainted in 1993 and 2001.	- prepare and repaint	10
Doors	Moderate	Timber double doors to south elevation	- prepare and repaint with gloss acrylic	10
Windows	High	Timber framed multipaned fixed windows to north east and west elevations. Openings with metal louvres to south and north elevations.	- prepare and paint with gloss acrylic	10
Addition to Ship Repair Workshop (1a)				
This is a 1960s addition to the Ship Repair Workshop. Of moderate significance, the building is an industrial structure and replacement of like for like where existing materials are deteriorated is considered an acceptable approach to maintenance.				
Roof	Moderate	Corrugated steel skillion roof in good condition	- check roof for corrosion - reclad with corrugated steel as necessary	5 5
Walls - external	Moderate	Wall cladding is horizontal weatherboards and corrugated steel (cladding renewed 1985). Repainted (1985).	- check walls for corrosion - reclad with corrugated steel as necessary - maintain paintwork	3 5 5
Structure	Moderate	Timber framing	- check for deterioration. Replace as necessary	3
Windows	Moderate	Aluminium framed sliding windows on the western elevation, metal roller shutter on north elevation.	- check window frames for corrosion	3

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
			- treat for corrosion prevention/repaint	10
Repair Workshop (2) & Repair Workshop addition (2a) & Slipway Workshop building (3)				
The Repair Workshop dates from 1945, the addition (2a) and Slipway Workshop building (3) post 1945-late 1940s. They are utilitarian connected structures associated with and in the case of building 3, built over the 1925 slipway (113). Of moderate significance, the buildings are industrial structures and replacement of like for like where existing materials are deteriorated is considered an acceptable approach to maintenance.				
Roof	Moderate	Corrugated steel clad gabled roof	- check roof for corrosion - reclad with corrugated steel as necessary	3
Structure	Moderate	Timber framing with a steel framed roof	- check for deterioration or corrosion - repair/replace as necessary	3 3
Walls	Moderate	Corrugated steel clad walls (cladding renewed 1985). Repainted (1985).	- check walls for corrosion - reclad with corrugated steel as necessary - prepare and repaint with gloss acrylic	3 3 5
Windows	Moderate	Timber framed windows, skylights	- prepare and paint timber window frames using gloss acrylic paint - check and renew paint finish at 10 yearly intervals thereafter - check skylights, repair and renew paint finishes as necessary	3 10 3
Dredge Office (48)				
The Dredge Office was constructed by the MSB on a filled site at the north-eastern corner of Goat Island in 1952 as the administrative offices for the dredging operation run from the island. It is a modest building and replacement of like for like where existing materials are deteriorated is considered an acceptable approach to maintenance. Where deterioration of fibro asbestos sheeting is detected, the sheeting should be removed and disposed of in accordance with Workcover and EPA requirements and replaced with modern fibre cement sheeting.				
Roof	Little	Original corrugated fibro asbestos roof was replaced with corrugated colorbond custom orb in 1993. The roof form is hipped with a flat roofed porch on the east elevation and a skillion roofed section in the centre of the west elevation	- check and replace deteriorated sections	10
Roof plumbing	Little	New 115mm quad colorbond gutters installed 1993	- check and clean out - check and replace deteriorated sections	1 5
Floors	Moderate	Carpeted timber	- check and replace deteriorated boards. Floor covering not significant.	5

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Walls - external	Moderate	Horizontal weatherboards to lower one-third of wall height, fibro asbestos sheeting above. External painting 1993.	- check, particularly for any deterioration to asbestos sheeting. Prepare & repaint – do not sand asbestos sheeting. Replace deteriorated weatherboards as necessary. In the case of asbestos sheeting, any sheeting with powdering to be removed and disposed of in accordance with Workcover and EPA requirements, and replaced with fibre cement sheeting.	5
Walls - internal	Moderate	Timber framed partitions with glazing to top sections, lightweight panels to lower sections	- check and replace broken glass, deteriorated panelling, with similar	5
Doors	Moderate	Hollow core entry door with glazing to top half	- prepare and repaint	10
Windows	Moderate	Simple timber framed double hung windows placed in pairs or groups	- prepare and repaint	10
Ceilings	Little	Lightweight panelling (masonite or similar)	- check and replace as necessary	10
Porch	Moderate	The porch roof is supported on three square timber posts mounted on a dwarf brick wall	- prepare and repaint posts - check roofing and guttering for corrosion, replace as necessary	10 10
Electrical wiring	Little	Refurbished 1993 including new switchboard, new circuit breakers	- check and replace as necessary	10
Gear Shed (49)				
Of moderate significance, the Gear Shed was constructed by the MSB on a filled site at the north-eastern corner of Goat Island in 1945. It is a modest building and replacement of like for like where existing materials are deteriorated is considered an acceptable approach to maintenance.				
Roof	Little	Corrugated steel gabled hipped roof with separate projecting hipped roof forms over each of the west and east end bays. Re-roofed in 1998.	- check and replace roofing as necessary	10
Roof plumbing	Little	Green painted guttering in reasonable condition	- check and clean out guttering - check for corrosion. Replace as necessary	1 10
Walls - external	Little	Horizontal weatherboards to the bottom third of the wall height, corrugated steel sheeting to the remainder of the walls. Bottom three rows of weatherboards have been replaced in 1998 due to termite damage. Corrosion evident to top of corrugated steel sheeting.	- prepare and repaint in gloss acrylic, over rust retardant to corrugated steel	10

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Doors & fanlights	Moderate	Centre: Timber tongue & grooved ledged & braced doors along the north elevation, with the function of each room delineated by name plates. Fanlights above each door have horizontal glazing bars. End bays: each end bay features a pair of timber tongue & grooved doors.	- retain door name plates - prepare and repaint doors and fanlight frames	10
Fire fighting building (50)				
The Fire Fighting Building was constructed by the MSB in 1943, for use as part of the MSB's harbour fire fighting brigade operation, and was later used as a keel block workshop. It is a timber framed corrugated steel clad "L" shaped building which is partially open on the northern side.				
Roof	Moderate	2 skillion roofs forming an "L", with nine steel-framed skylights. Corrosion is evident to the roofing	- prepare roofing, treat with rust retardant, and repaint - prepare skylight frames, treat with rust retardant and repaint	10 10
Roof plumbing	Moderate	Guttering and downpipes	- check and repair/replace guttering & downpipes as necessary	5
Floor	Moderate	Concrete	- no works required	
Walls	Moderate	Corrugated steel walls, corrosion evident	- prepare, treat with rust retardant, and repaint - replace deteriorated corrugated steel sheets as necessary, and paint to match existing	10
Doors	Moderate	Timber double doors at western end, tongue & groove boarding, some metal-clad doors	- prepare and repaint	10
Windows	Moderate	Various timber and steel framed windows. Some openings have no windows.	- prepare and repaint window frames, replace any broken glass - cover openings without windows with lightweight material eg corrugated Perspex sheeting, to increase weatherproofing	10 1*
Electrical wiring	Moderate	Enamel light fittings from the mid 20th century	- replace wiring as necessary. Install new circuit breakers. Ensure light fittings are retained.	10
MSB B456 building (56)				
This is a portable building currently located near the Fire fighting building (50). It is capable of being relocated again, if necessary, without loss of significance.				
Roof	Moderate	Gabled corrugated steel roof	- prepare, treat with rust retardant, and repaint	10

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Roof plumbing	Moderate	Guttering, downpipes	- check and repair/replace guttering & downpipes as necessary	5
Walls	Moderate	Horizontal weatherboarding	- prepare, repair and repaint	10
Windows	Moderate	Timber framed windows with horizontal glazing bars	- prepare, repair and repaint	10
Corrugated Iron shed (57)				
This is a simple metal shed located near the Fire Fighting Building (50).				
Roof	Moderate	Gabled corrugated steel with some corrosion evident	- prepare, treat with rust retardant, and repaint. - repaint rafter ends	 10 10
Walls	Moderate	Corrugated steel painted green with metal vents near ground level	- prepare, treat with rust retardant, and repaint	10
Port Emergency Services Building (45)				
This is a two storey steel framed building with lightweight infill walls, concrete decks and a membrane covered flat roof used as an observation deck. The building was the last constructed for Maritime use on the Island, altered and adapted for use as the main set of the TV series “Water Rats” in 1996. These alterations included reworking of stairs, new glazing to enclose part of deck, new door openings, construction of a first floor deck to the east elevation, balustrading, installation of suspended ceilings and fluorescent lighting, repainting in blue. Toilets renovated in 1997. Open tread stairs and sections of sandstone-clad wall are the most significant extant elements of the building’s original design.				
Roof	Little	Flat membrane covered roof/trafficable deck	- check and repair as necessary	5
Roof plumbing	Little		- check and repair as necessary	5
Floor	Little	concrete	- check and repair as necessary	5
walls - external	Ground floor – sandstone clad sections – Moderate; lightweight panel walls - little	Sandstone clad sections of wall should be retained. The remaining walls can be retained or altered, depending on the use of the building.	- check and repair as necessary. Lightweight panels to be prepared and repainted. Lightweight panels may be replaced.	5
Walls - internal	Little	Lightweight walls	- check, repair and repaint. Lightweight panels may be replaced	5
Doors	Little	Glazed timber framed doors	- check, repair and repaint	5
Windows	Little	Timber framed double hung and fixed windows	- check, repair and repaint	5

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Suspended Ceilings	Little	Lightweight ceiling panels installed in 1996 below original ceilings	- check, repair if necessary. Removal/replacement is possible	5
Electrical wiring & lighting	Little	Fluorescent lighting installed for "*Water Rats*" in 1996.	- check, repair if necessary. Lighting may be replaced	5
BUILT ELEMENTS OF LITTLE SIGNIFICANCE				
Winch house (7)				
A utilitarian corrugated steel & timber winch house within the Shipyard Precinct				
Roof	Little	Corrugated steel gabled roof with 2 ventilators. Appears in good condition.	- check and repair/replace sheets as necessary	10
Walls	Little	Lower one third of wall height on north and part west elevation is horizontal weatherboards, remainder of walls are painted corrugated steel. Louvred vents to gabled walls	- check and repair/replace boarding or corrugated sheets as necessary. Prepare & repaint.	10
Windows	Little	Timber framed fixed windows	- prepare and repaint	10
Doors	Little	Timber tongue & grooved, ledged & braced double doors to north elevation	- prepare and repaint	10
Winch house (8)				
A utilitarian brick winch house within the Shipyard Precinct, with two spaces, the winch housing, open to the slipway, and the winch motor room, secured behind doors.				
Roof	Little	Low pitched steel cliplock roof. Appears in good condition.	- check and repair/replace sheets as necessary	10
Walls	Little	brick	- check and repair mortar as necessary	10
Doors	Little	Timber flush double doors secure the winch motor room.	- prepare and repaint	10
Amenities block (13)				
Demolition of this building is recommended due to its adverse impact on the Magazine precinct, particularly on the setting of the Queen's Magazine and the Fortified wall and sentry box.				
Southern addition to Queen's Magazine (15a)				
Demolition of this building is recommended, following desalination treatment to the southern elevation of the Queen's Magazine. The building has a concrete floor, also a roof abutting the southern elevation of the Queen's Magazine, which leaks at this junction. The existence of this building impacts adversely on the fabric of the Queen's Magazine as well as visually and on the setting. While not an original doorway, the doorway in the southern elevation of the Queen's Magazine does appear to date from prior to 1920. It is considered that the doorway in the southern elevation of the Queen's Magazine should remain, however should not be used as a point of entry.				

Element	Significance of fabric element	Description & Condition	Works	Timeframe (years)
Amenities Block (58)				
This is a small c. 1970s concrete block building containing showers and toilets.				
Roof	Little	Flat corrugated steel roof	Periodic check and repair as necessary	10
walls	Little	Concrete block	Periodic check and repair as necessary	10
Timber shed (130)				
This is a small timber shed which has been relocated a number of times around the Island's wharves. Currently located adjacent to the Berthing Wharf (54c)				
Roof	Little	Gabled corrugated fibro asbestos roof. Awning over western window.	If the building is to be retained, replacement of the roof with corrugated steel is recommended. Existing asbestos roofing should be removed and disposed of in accordance with Workcover and EPA requirements.	3
walls	Little	Vertical timber cladding	Check, repair and paint as necessary	10
Windows	Little	Timber framed fixed and double hung timber framed windows	Check, repair and paint as necessary	10

TERMS

The following terms used in this report are defined in the Australian ICOMOS Burra Charter:

Adaptation means modifying a place to suit proposed compatible uses.

Compatible use means a use, which involves no change to the culturally significant fabric, changes that are substantially reversible, or changes which require minimal impact.

Conservation means the continuous protective care of the fabric so as to retain its cultural, natural and Indigenous significance. It includes protection, maintenance and monitoring. According to circumstance it may involve preservation, restoration, reconstruction, reinstatement or adaptation and will be commonly a combination of more than one of these. For Indigenous communities, it can include conserving relationships between people and places that embrace spiritual as well as historical values, and protecting Aboriginal sites in order to protect their significance to people.

Cultural significance (or heritage significance) means aesthetic, historic, historic associational, scientific or social value for past, present or future generations.

Delegation: A number of agencies with significant heritage portfolios and appropriate heritage expertise are able to deal with minor applications for change to heritage items under delegation. In 2004 the authorisation to endorse CMP's, consider applications under S.60 and 140 of Heritage Act, exemptions, exceptions from excavation permit under s.139 (1) and (2) of the Heritage Act was extended to officers of the Department of Environment and Climate Change (DECC). The use of these exemptions, authorisations and delegations streamlines the approval and exemption notification processes involving these agencies.

Fabric means all the physical material of the place.

Gradings of significance means a method of grading different components of a place to indicate their relative contribution to the overall heritage value of the place. Gradings of significance are recognised and defined in the NSW Heritage Office publication *Assessing Heritage Significance*.

Indigenous significance refers to Indigenous heritage value and includes Aboriginal sites showing evidence of Aboriginal occupation and Aboriginal places, which are of contemporary or spiritual importance according to Aboriginal culture or custom.

Interpretation means all the ways of presenting the cultural significance of a place.

Levels of Heritage Significance means **local** (of local significance, for example capable of listing on local environmental plans by local councils); **state** (of significance to the State of NSW, capable of listing of the State Heritage Register by the NSW government,); **National** (of national significance capable of listing on the National Heritage List by the Australian federal government,); **World** (of world significance, capable of listing by UNESCO on the World Heritage List). See NSW Heritage Council online publication "*Levels of Heritage Significance*" available under "Publications" on www.heritage.nsw.gov.au

Maintenance means upkeep of fabric and places to the standards required by the NSW Heritage Act 1977, and does not involve restoration, reconstruction or reinstatement.

Movable heritage is a term used to define any natural or manufactured object or collection of heritage significance.

Natural significance means the importance of ecosystems, biological diversity and geo-diversity for their existence value for present or future generations in terms of their scientific, aesthetic and life-support value.

Place means Site, area, building or other work, group of buildings or other works together with associated contents and surround.

Preservation means maintaining the fabric of a place in its existing state and retarding deterioration

Restoration means returning the existing fabric, habitat or place to a known earlier state by repairing degradation, removing accretions or introduced species or by reassembling existing components without the introduction of new material

Reconstruction means returning a place to a known earlier state and is distinguished from restoration by the introduction of new material into the fabric

Reinstatement or reintroduction means to introduce to a place one or more species or elements of habitat or geodiversity that are known to have existed there naturally at a previous time, but that can no longer be found at that place

Setting means the area around a place, which may include the visual catchment.

Use means the functions of a place, as well as the activities and practices that may occur at the place.

The following terms are defined in the Heritage Office guidelines Heritage Curtilage (1996). This document illustrates several types of curtilage pertaining to a heritage item. The types of curtilage include the following:

ABBREVIATIONS

AHC	Australian Heritage Commission
ANHC	Australian Natural Heritage Charter
AHIMS	Aboriginal Heritage Management System
BCA	Building Code of Australia
BP	Before Present
CMP	Conservation Management Plan
DECC	Department of Environment and Climate Change
EPBC	Commonwealth Environment Protection & Biodiversity Conservation Act
EPA Act	Environmental Planning and Assessment Act, 1979 (NSW)
GPR	Ground Penetrating Radar
HIS	Heritage Impact Statement
HRNSW	Historical Records of New South Wales
ICOMOS	International Committee on Monuments and Sites
ML	Mitchell Library, State Library of New South Wales
MSB	Maritime Services Board of NSW (operated 1936-1993 on Goat Island)
NAA	National Archives of Australia
NPWS	National Parks & Wildlife Service
NSWM	New South Wales Maritime
PWD	Parks and Wildlife Division of the DECC
PoM	Plan of Management
RAHS	Royal Australian Historical Society
RNE	Register of the National Estate
SAONSW	State Archives Office New South Wales
S. 60	An application for Heritage Council approval for works affecting a State Heritage Item (Heritage Act, Section 60)
SLNSW	State Library of NSW
SRNSW	State Records of New South Wales
SHI	State Heritage Inventory (NSW)
SHT	Sydney Harbour Trust (operated 1901 to 1936)
SHR	State Heritage Register (NSW)
UNESCO	United Nations Educational Scientific and Cultural Organisation

APPENDIX 7

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APPENDIX 2: BIBLIOGRAPHY

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