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## Conservation Management Plan

Shepherds Hill Defence Group Military Installations  
SHR # 01806

41 The Terrace, Newcastle and 65 Nesca Parade, The Hill

Submitted to the Council of the City of Newcastle

## Report Revision History

Revision	Date Issued	Prepared by	Reviewed by	Verified by
01 DRAFT	4/07/16	<b>Brittany Freeland</b> <i>Heritage Consultant</i> <b>Anna McLaurin</b> <i>Heritage Consultant</i>	<b>Kerime Danis</b> <i>Director - Heritage</i>	<b>Kerime Danis</b> <i>Director - Heritage</i> 
02 DRAFT	12/08/2016	<b>Brittany Freeland</b> <i>Heritage Consultant</i>	<b>Kerime Danis</b> <i>Director - Heritage</i>	
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04 FINAL	14/12/2016	<b>Brittany Freeland</b> <i>Heritage Consultant</i> <b>Kerime Danis</b> <i>Director - Heritage</i>	<b>Kerime Danis</b> <i>Director - Heritage</i>	
05 UPDATE	15/09/2017	<b>Brittany Freeland</b> <i>Senior Heritage Consultant</i>	<b>Kerime Danis</b> <i>Director - Heritage</i>	
06 UPDATE	25/07/18	<b>Brittany Freeland</b> <i>Senior Heritage Consultant</i>	<b>Kerime Danis</b> <i>Director - Heritage</i>	
07 UPDATE	4/03/19	<b>Brittany Freeland</b> <i>Senior Heritage Consultant</i>	<b>Kerime Danis</b> <i>Director - Heritage</i>	
7.1 FINAL FOR ENDORSEMENT	3/07/19	<b>Brittany Allen</b> <i>Senior Heritage Consultant</i>		

*This document is preliminary unless approved by a Director of City Plan Heritage.*

#### CERTIFICATION

This report has been authorised by City Plan Heritage, with input from a number of other expert consultants, on behalf of the Client. The accuracy of the information contained herein is to the best of our knowledge not false or misleading. The comments have been based upon information and facts that were correct at the time of writing this report.

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# 1. Executive Summary

## 1.1 Introduction

In February 2016, City Plan Heritage (CPH) was engaged by the Newcastle City Council to prepare a Conservation Management Plan (CMP) for the Shepherds Hill Defence Group Military Installations including all built and landscape elements located at 41 The Terrace, Newcastle, 65 Nesca Parade, 43 High Street and 101 Memorial Drive, The Hill (with some elements located underground). This area of land was formerly part of King Edward Park before it was developed in 1890 and later during World War II as a coastal military site. The site is currently owned by Newcastle City Council.

The subject site is located approximately 170km north of the Sydney Central Business District. The site is identified as a heritage item of state significance under the *NSW Heritage Act, 1977* and is listed on the State Heritage Register (SHR No.01806). This listing incorporates all heritage elements located across three sites. The site is also listed on the Newcastle Local Environment Plan (LEP) 2012 as having State heritage significance (item no. 1460) and is located within The Hill Heritage Conservation Area (HCA) (C6).

Throughout this report, the entire SHR item will be referred to as the Shepherds Hill Defence Group Military Installations (the site) while the various built elements present on the site will be individually acknowledged where required.

This study aims to create a plan to enhance the site for future generations, inform on potential adaptive re-uses of the site and provide a plan for ongoing operations and maintenance. In general, it will be used to manage the heritage significance of the site and inform future decisions on the site.

## 1.2 Statement of Significance

The following Statement of Significance has been extracted from the State Heritage Inventory (SHR) form for the Shepherds Hill Defence Group Military Installations:<sup>1</sup>

*The Shepherds Hill Group is historically significant at a State and possibly a national level, because its history forms an important part of the story of Australian coastal defences, spanning a six-decade period from the late 19th, to the mid 20th century. During this time, the site was a key defence post. Its history provides an insight into the way that NSW defence policy reacted to changing technologies, threats and types of warfare. During WWII, the fortifications at Shepherds Hill played a co-ordinating role in the defence of Newcastle. Defence of Newcastle during this time was of high significance to the state, because Newcastle had become an area of great strategic and industrial importance in NSW, with its steelworks and operational port. The majority of the state's shells were produced in Newcastle and it was also the site of the NSW Dockyards. In order to protect these productions, a new system of defence was undertaken, which included the strengthening of Fort Wallis and the construction of two new close defence batteries - Shepherd's Hill and Fort Scratchley. The defence system proved its worth when in June 1942, Newcastle was fired on by cruising Japanese submarines, and Newcastle gained the distinction of being the only place in Australia that returned enemy fire with the launching of guns from Fort Scratchley. The fact that the Shepherds Hill fortification was simultaneously manned by members of the Navy, Army and the Airforce for a variety of functions is rare, and possibly unique in Australia.*

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<sup>1</sup> State Heritage Inventory form for the "Shepherds Hill Defence Group Military Installations," accessed 28 August 2017 via <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5061075>

### 1.3 Conclusion

The conservation policies are intended to assist the owners, consent authorities and all stakeholders and occupants through the processes of conserving, repairing, maintaining and using the site. The conservation policies provide a set of guidelines to inform future decisions. Decisions about future work including repair, conservation, adaptation to various uses, maintenance works or future additions and development should take into consideration the significance of the place as a whole as well as of the affected separate parts and their interrelationship.

The conservation policies are not intended to prohibit change at the site. Use of the policies will ensure that future decisions are made on an informed basis enabling the significance of the place to be retained and enhanced. The policies target the issues that are relevant to the site but also are intended to be flexible in recognising the site and owners'/ lessee's constraints and requirements.

The policies in this report commence with general policies to provide guidance to deal with the key implications for retaining the significance of the site, including:

- Recognise and retain heritage values;
- Conserve the place as a whole;
- Recognise all periods of the building's history;
- Facilitate the adaptation of the site for appropriate uses;
- Conserve and maintain significant building features and their functional and spatial relationships; and
- Conserve in accordance with significance;

Policies are then provided to address physical conservation issues such as identifying, managing and undertaking conservation and maintenance works as well as employing consultants and contractors with appropriate expertise, including:

- Adopt best-practice guidelines and procedures;
- Provide effective management; and
- Manage operational and security issues.

Policies are also provided to identify and manage future change, accepting that change is inevitable with most occupied and functioning heritage sites including:

- Manage change including management as an overall strategy by implementing these policies;
- Guide change and new development within the site; and
- Identify and assess potential impacts.

Policies are then recommended for:

- Managing the site's potential archaeological resources;
- Involving associated people and communities;
- Keeping proper records and managing archive collections and records;
- Regular review and update of these policies;
- Presenting and interpreting the site and its story;
- Further research.

## 2. Introduction

### 2.1 Aims of the Conservation Management Plan

The aim of a Conservation Management Plan (CMP) is to identify the cultural significance of a place by investigating its history, fabric and context. The level of cultural significance determines the type and degree of acceptable change, the levels of maintenance required and the type of adaptive re-use that the place can undergo. This information is then used to suggest opportunities for making the place useable in order to keep it viable and ensure its future.

This CMP is intended to be a practical document that will guide future decisions about the place, the Shepherds Hill Defence Group Military Installations, in order that the cultural significance is not compromised through inappropriate change. It will provide structure for the management and conservation of the significant values of the place with regard to the relevant legislation and the requirements of the stakeholders.

### 2.2 Background

On 4 November 2015 Newcastle City Council released a Request for Tender (RFT2016/223Q) for the production of a CMP for the Shepherds Hill Defence Group Military Installations located at 41 The Terrace, Newcastle (not including all SHR items). In January 2016, a request for revision of submitted fees was issued by Council which involved the exclusion of the following scope of works:

- Review and Assess Significance;
- Implementation Strategy - Interpretation Strategy;
- Benefit Cost Analysis.

Subsequently, City Plan Heritage (CPH) was commissioned by Newcastle City Council in February 2016 to produce the CMP.

The cottage at Shepherds Hill was significantly damaged during a severe storm in April 2015 which resulted in damage to the roof and interiors along with water ingress. It also caused the collapse of the only surviving chimney above roof level and damaged the metal roof. Marine Rescue NSW (who lease the cottage) were subsequently relocated as a result of the damage which made the cottage uninhabitable. Hazmat Services were subsequently employed by Newcastle City Council following the discovery of asbestos throughout the building.

In order to ensure the activities of Marine Rescue could continue offsite, Newcastle City Council applied to NSW Office of Environment & Heritage under section 57 (2) of the Heritage Act to allow for the provision of temporary power to Marine Rescue's tower (located within the cottage grounds). This would allow for remote access to be undertaken from another location. Another Exemption application was lodged by Council to enable the removal of the asbestos found within the cottage. Both exemptions were approved to proceed.

These works were undertaken during production of this report.

When the Commonwealth of Australia transferred the site to Crown Lands on 19 July 1988, a covenant was placed on the site detailing conditions tied to the ownership or use of the land. The covenant stated the following:

1. *The Transferee shall not demolish, damage, alter or change the essential historic character of the said land and the improvements thereon or permit same and shall maintain the land and the improvements thereon in good order and condition having regard to their essential historic character;*
2. *The Transferee shall not use or permit to be used the land and any improvements thereon for any purposes other than as an historical and recreational site provided however that the cottage on the said land (being the cottage known as "45 The*

*Terrace, Shepherds Hill"), may be occupied as a home for an artist-in-residence or for any similar purposes not inconsistent with the said historical character;*

3. *The Transferee shall not permit any new buildings or structures to be erected on the said land which adversely affects the historic character of the cottage, battery or King Edward Park; and*
4. *These covenants shall run with the land.*

(See Appendix H for a copy of the covenant)

Version 4 of this report was submitted to the Office of Environment and Heritage (OEH) in December 2016 for review and endorsement. Feedback was received in June 2017 and a meeting was held with OEH and CPH, to discuss changes required in response to the feedback. This report is a revision of Version 6 and incorporates the changes stipulated by OEH and all components of the SHR item. In addition, community comments received during the re-exhibition of the CMP in late 2018 have also been incorporated into this document, where relevant.

## 2.3 Location of the Study Area

The subject site is located adjacent to King Edward Park and is bounded to the east by a cliff and the Tasman Sea, and to the north by York and Memorial Drive (Figure 1 and Figure 2). The principal Street addresses for the site is 41 The Terrace, Newcastle, 65 Nesca Parade, 43 High Street and 101 Memorial Drive, The Hill. The real property descriptions for the site as identified in the SHR listing is as follows:

- Lot 3116 of DP 755247;
- Lot 2 of DP 1145960 (part lot);
- Lot 78 of DP 154075 (part lot);
- Lot 0 of SP 4203 (part lot).

For a more detailed description of the site and its context, see Section 3.



Figure 1: Aerial view showing the location of the subject SHR site(red) in relation to the city centre of Newcastle (blue). (Source: SIX Maps, accessed 21 August 2017 via <https://maps.six.nsw.gov.au/>)



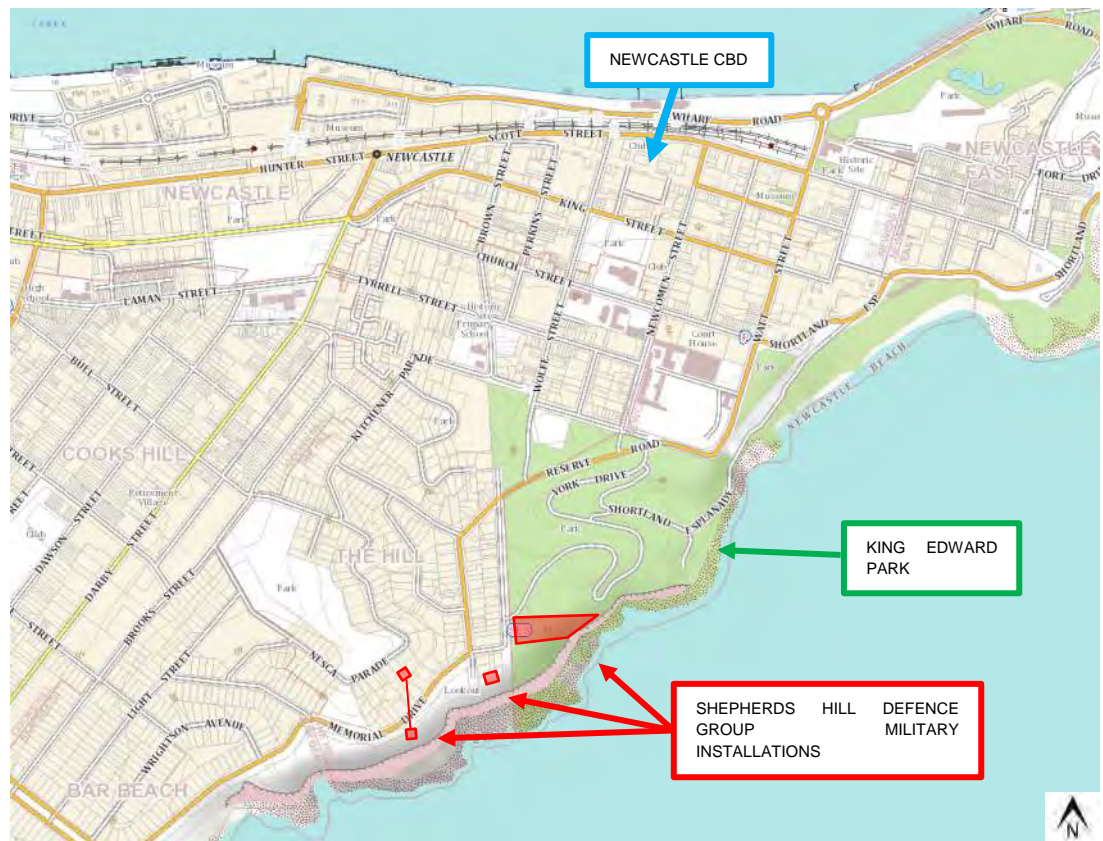


Figure 2: Cadastral map showing the location of the subject SHR site (red) in relation to the city centre of Newcastle (blue). (Source: SIX Maps accessed 21 August 2017 via <https://maps.six.nsw.gov.au/>)



## 2.4 Existing Heritage Status

The site is identified as a heritage item of state significance under the NSW *Heritage Act*, 1977 and listed on the State Heritage Register (SHR No.01806). This listing incorporates all heritage elements located at both 41 The Terrace, 65 Nesca Parade, 43 High Street and 101 Memorial Drive, The Hill (Figure 3). The site is also listed on the Newcastle Local Environmental Plan (LEP) 2012 as having State heritage significance (item no. 1460) and is located within The Hill Heritage Conservation Area (HCA) (Figure 4).

Heritage Council of New South Wales



State Heritage Register - SHR 01806, Plan 2310  
Shepherds Hill Defence Group Military Installation  
41 The Terrace, Newcastle

Gazettal Date: 02 July 2010

0 40 80 120 160 Metres

Scale: 1:3,000

Datum/Projection: GCS GDA 1994



### Legend

- SHR Curtilage
- Land Parcels
- Railways
- Roads
- LGAs
- Suburbs

Figure 3: State Heritage Register curtilage map for the Shepherds Hill Defence Group Military Installations. The sites incorporated in the listing are hatched in red. (Source: State Heritage Register form for the Shepherds Hill Defence Group Military Installations, accessed 11 September 2017 via <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5061075>)

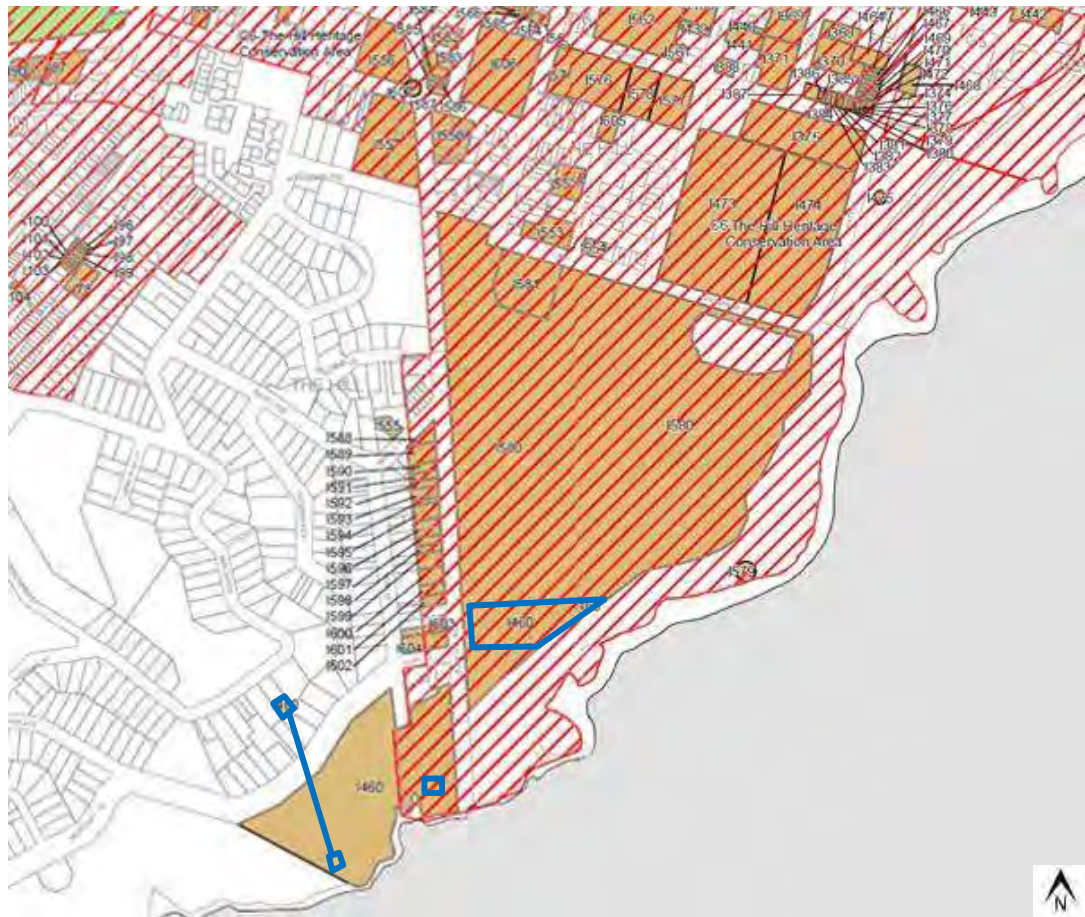


Figure 4: Newcastle LEP Heritage Maps 4G and 4K showing the location of the Shepherds Hill Defence Military Installations, outlined in blue. Note the site is also located within the King Edward Park group heritage item. (Source: Newcastle LEP 2012)

## 2.5 Limitations

- CPH were not involved in the planning or implementation stages for the restoration of the cottage following the April 2015 storm including asbestos removal;
- The revised scope of works for the CMP resulted in the elimination of an implementation strategy - interpretation strategy; and benefit cost analysis;
- Previous site documentation makes reference to several other built elements (officer's accommodation, floor slabs and footings) that were once present within the site of the Shepherds Hill Defence Group Military Installations.<sup>2</sup> Investigation into these other built elements is beyond the scope of this report but has been covered, in part, in the Archaeological Assessment (Appendix G) and history in Section 4;
- A moveable heritage assessment is beyond the scope of this report; however, no moveable heritage was readily identified during the site inspections undertaken by CPH;
- Limited internal access was provided to the structures during the two separate site inspections conducted by CPH. CPH was provided with internal access to the cottage and the Archaeologist and Engineer had internal access to the cottage and other structures. As such, CPH relies on the information provided by the Archaeologist (Iain Stuart, JCIS Consultants) and Structural Engineer (Alex Been, Mott MacDonald) for

<sup>2</sup> Browne, Gardner, Shepherds Hill Cottage and Surrounds, Conservation Study, Newcastle City Council, 1984, p.13



these areas. Internal access to the Memorial Drive structures was not possible, due to the private ownership of the Searchlight Engine Room (which provides the only known access to the tunnels and No.1 Searchlight);

- Historic plans included in Section 4 of this report may vary in quality depending on the condition of the original and the digitised copy. CPH and Dr Terry Kass have attempted to source the best quality plans as possible; however, for some this was not possible. For better quality plans, consultation is recommended with the relevant repository;
- Access to the fenced enclosure of the cottage was limited at the time of the inspection for landscape analysis due to site works. The garden was also overgrown with weeds, making identification of possible garden flowers impossible;
- OEHL have requested this CMP be updated to include all elements included in the SHR listing. Every effort has been made to include any relevant information required, however, access to all areas of the respective sites has been a limitation;

The Archaeological Assessment by JCIS Consultants only covers 41 The Terrace.

## 2.6 Methodology

This CMP has been prepared in accordance with the guidelines of *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013* (The Burra Charter); the NSW *Heritage Manual* 'Conservation Management Documents' and the Conservation Plan (7th edition, 2013) by James Semple Kerr and published digitally by Australia ICOMOS.

A main objective of a CMP, as outlined in the J. S. Kerr's Conservation Plan, is to set out the significance of the item and develop appropriate policies to enable the significance of the item to be retained in its future use and development. The NSW *Heritage Manual* indicates that a CMP should be a concise document that makes reference to the other documentation where necessary rather than repeating the information included in previous reports unless of particular relevance.

The historical context in this CMP is based on primary sources where possible, reports and previous research.

## 2.7 Author Identification

The following report has been prepared by the following CPH team:

- Brittany Freeland (Senior Heritage Consultant) MMus Stud, BA;
- Anna McLaurin (Heritage Consultant) M.HerCons, BEnvS (Arch) (2015);
- Kerime Danis (Director - Heritage) MHerCons (Hons), BArch, Australia ICOMOS Past President;
- Alexandra Ribeny (Heritage Consultant) MArchSci, BA (Hons).

Dr Terry Kass, Historian, has prepared the history for the site included in Section 4.

All photographs have been taken by CPH during the site inspections conducted on 2 March 2016, 17 May 2016 and 8 June 2016 unless otherwise stated.

This CMP remains the intellectual property of City Plan Heritage and may not be reproduced in whole without the prior permission.

Archaeological and structural support has been provided by the following sub-consultants:

- Dr Iain Stuart, Industrial Archaeologist, JCIS Consultants;
- Alex Been, Structural Engineer, Mott MacDonald.

Cultural landscape input was provided by Chris Betteridge, Director, Betteridge Consulting Pty Ltd t/a MUSEcape, BSc (Sydney), MSc (Museum Studies) (Leicester), AMA (London), MICOMOS,

## 2.8 Sources and Acknowledgements

The historical context in this CMP is based on primary and secondary sources where possible. The following resources were accessed during the course of investigations for the CMP:

- Carr, John, 22 December 2015, *Heritage Design Statement of Heritage Impact, Proposed Report and Reconstruction of Shepherds Hill Cottage*, The Hill, City of Newcastle;
- Browne, Gardner, 1984, *Shepherds Hill Cottage and Surrounds: Conservation Study*, prepared for Newcastle City Council;
- Maynard, John (undated), *Whose Traditional Land?* Prepared for the University of Newcastle;
- Dyall, Len K. 1971, *Aboriginal Occupation of the Newcastle Coastline*;
- Carr, John, Shepherds Hill Cottage Storm Damage Repairs Statement of Heritage Impact, Rev E, February 2017.

A number of historical photographs have been obtained from the NSW State Library online catalogue at <http://library.sl.nsw.gov.au/search>, and the City of Sydney Archives online catalogues and collections <http://tools.cityofsydney.nsw.gov.au/investigator/>. The Database Trove operated by the National Library of Australia has provided copies of digitised newspapers articles.

Current aerial photographs have been sourced from NSW Department of Lands Spatial Information eXchange (SIX) at <http://lite.maps.nsw.gov.au/> as it has detailed aerial maps for Sydney while the street map has been sourced from Google maps at <http://maps.google.com.au>. The NSW Department of Lands SIX website provided historical aerial photography from 1943.

Existing heritage listing- Inventory Forms, ongoing regular Maintenance Plan and the Burra Charter have been included within the Section 11 – Appendices.

City Plan Heritage wishes to acknowledge the invaluable support of the people and organisations that assisted in the preparation of this report:

- Rachel McConkey, Senior Urban Planner, Newcastle City Council;
- Sarah Cameron, Heritage Strategist, Newcastle City Council;
- Ron Claman OAM, Neil Grives and Dean Storey from Marine Rescue NSW;
- Graeme (Tony) Steinbeck for invaluable information on the history of the site;
- Jenny Sloggett, archivist employed by New South Wales State Archives who provided a copy of a significant file held in the Australian War Memorial; and
- The local residents and community groups.

## 2.9 Abbreviations

**CMP:** Conservation Management Plan

**LEP:** Local Environmental Plan

**DCP:** Development Control Plan

**LGA:** Local Government Area

**HIS:** Heritage Impact Statement

**SHI:** State Heritage Inventory

**SHR:** State Heritage Register

**CPH:** City Plan Heritage

**BOP:** Battery Observation Post



**DRF:** Depression Range Finder  
**RFT:** Request for Tender  
**BC:** Battery Commander  
**FC:** Fire Commander  
**OCSL:** Office Commanding Searchlights  
**FOP:** Fortress Observation Posts  
**RAN:** Royal Australian Navy  
**RAAF:** Royal Australian Air Force  
**SMO:** Selected Military Officer  
**HMAS:** Her Majesty's Australia Ship  
**ANZAC:** Australian and New Zealand Army Corps



### 3. The Site and Context

#### 3.1 Site Description

The Shepherds Hill Defence Group Military Installations comprises landscape features and various built elements situated at three locations along the coastline of Newcastle, within the suburb known as The Hill. The following table illustrates the real property description and address of the areas comprising the site. The curtilage of the items is also identified in Figure 4. They are located within the Newcastle Local Government Area (LGA).

Real Property Description	Address	Built Structures	Notes
Lot 2 DP 1145960	Memorial Drive, The Hill (also 43 High Street, The Hill)	Searchlight bunker	Occupies only part of the allotment. Located near Cliff Street, The Hill.
Lot 78 DP 154075	43 High Street, The Hill	Park Battery, no.1 gun and bunker	Occupies only part of the allotment. Other elements in this allotment (e.g. cliff face) are excluded from the listing. Note: the cliff is included in LEP listing. Previously identified as near Cliff Street, The Hill.
Lot 0 SP 4203 (part lot)	65 Nesca Parade, The Hill Tunnels run [REDACTED] [REDACTED] under Memorial Drive, Yuelarbah track and the Newcastle Memorial Walk bridge.	Searchlight Engine Room and associated tunnels	Occupies only part of the allotment. The apartment building located on the site is excluded from the listing.
Lot 3116 DP 755247	41 The Terrace, Newcastle	<ul style="list-style-type: none"> <li>Cottage;</li> <li>gun emplacement (including above and underground structures); and</li> <li>a Battery Observation Post.</li> </ul>	N/A

The boundary of the site is identified as follows in the SHR listing form for the sites:

*This item comprises 5 elements, as follows: 41 The Terrace: Southern and south-eastern boundaries are the cliff, the western boundary is the wire fence just east of The Terrace. The northern boundary is just beyond the intersection of York Drive and the Terrace and passes approximately 5 meters along parallel to the access road to the site. It follows the 67 meter contour around to the edge of the cliff. See image no.7. 65 Nesca Parade: One metre from the footings of the Searchlight Engine Room. The units constructed on top of the Searchlight Engine Room are excluded from the listing Tunnel: The boundary is the interior fabric of the tunnel connecting the Searchlight engine room with the Searchlight Bunker on the cliff-face. Searchlight Bunker: Five meters from the footings of the bunker. Battery No. 1 gun emplacement: Five meters from the footings.*

The following descriptions detail the character of each of these sites and provide an indication of the structures present, landscaping and natural heritage of the site and the archaeological potential.

### 3.2 41 The Terrace, Newcastle

41 The Terrace is the largest component of the site where the majority of built structures are located including the cottage, gun emplacement (including underground structures) and Battery Observation Post. It is prominently located on a significant promontory, with an eastern cliff edge (Figure 5).

The site is a trapezoidal shaped block towards the southern end of King Edward Park and is located on the top of a cliff overlooking the Tasman Sea. The western boundary of the site overlooks the residential developments of The Terrace and Cliff Street. York Drive, which provides vehicular and pedestrian access to the park, is a winding road located north of the site.

The block slopes slightly to the east and the cottage is built towards the western end of the site. All other built elements are located east of the cottage excluding the toilet block and the Marine Rescue aerial which are located south of the cottage. A number of built elements are underground and not visible from ground level (tunnels etc) (Figure 6).

The site is predominately accessed via foot, with a pedestrian walkway present along the western boundary of the site, extending from the north-western corner towards the structures located to the east and extending over the entrance to the gun emplacement tunnels. A road extends east and south from The Terrace, providing vehicular and pedestrian access to the entrance of the gun emplacement tunnels. There is also a driveway providing access to the southern section of the cottage. These are the only forms of formal access to the site, however, due to the open landscaping of the site, it is freely accessible by pedestrians. There is also a set of steps to the north, providing access from King Edward Park.

There is some fencing present around the cottage, on all sides, both a picket fence and a temporary metal fence erected around the picket fence, to prevent unauthorised access to the cottage. Metal fencing is also present to above ground structures of the gun emplacement and a white painted timber fence along the cliff face, for safety purposes. A few bollards are also located in front of the driveway providing access to the gun emplacement tunnels (Figure 7).

The overall land size for 41 The Terrace is 7102 m<sup>2</sup>.

According to the archaeological assessment undertaken by JCIS Consultants, there are a number of concrete pads within the site visible the aerial (Figure 6):<sup>3</sup>

*There are a number of concrete slabs visible on the current aerial image and on the ground, and clearly some more were visible in 1984 as they are drawn on the site plan in the CMP (Browne 1984).*

*There is no doubt that these relate to the World War II use of the site as it is known that a number of ancillary buildings were erected (for example, the ShD radar was planned to be installed with a "small engine house" to supply power). Undoubtedly the concrete slabs relate to these buildings.*

*The concrete slabs have a limited archaeological potential in that their fabric, once cleared, may tell the size of the building and something of its function. However, that is all that can be hoped from archaeology. More historical research may yield a wartime plan of the site which would further aid in its interpretation.*

The archaeological potential for the site (Section 6), as a whole, is considered low and discussed further in Section 9.7.5.

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<sup>3</sup> JCIS Consultants, Appendix F, Archaeology Shepherds Hill, December 2016, p.18



Figure 5: Map showing the lot boundary for 41 The Terrace, highlighted in red for clarity. (Source: SIX Maps accessed 21 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 6: Detailed aerial view showing the various built elements located on the subject site. (Source: SIX Maps accessed 21 August 2017 via <https://maps.six.nsw.gov.au/>)



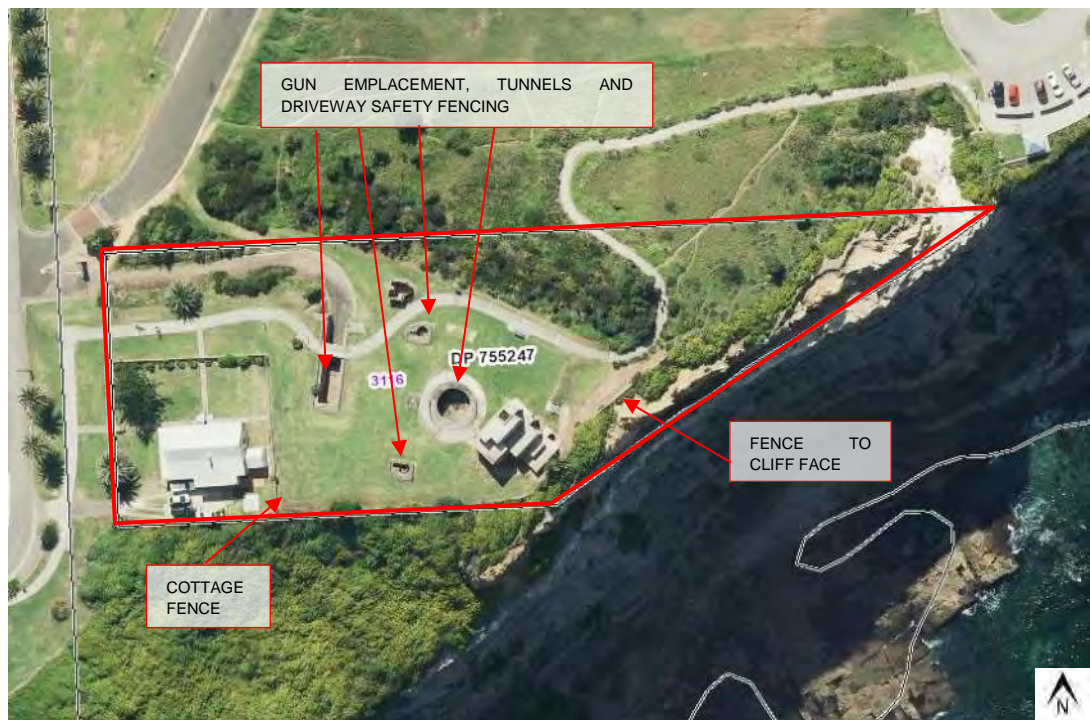


Figure 7: Detailed aerial view showing the various fences present onsite. (Source: SIX Maps accessed 21 August 2017 via <https://maps.six.nsw.gov.au/>)

### 3.2.1 The Cottage

The cottage, also known as the 'Barrack' and 'District Gunners' cottage, is a single storey timber weatherboard former residence originally constructed as Gunners Quarters when the gun pit was constructed during the 1890s. The cottage is located towards the western end of the site, set back from The Terrace although still clearly visible from within the street.

The cottage was extensively damaged during severe storms experienced in April 2015 and has subsequently undergone asbestos removal which has left the internal fabric in a poor condition. It is currently undergoing conservation works under the supervision of Heritage Architect John Carr, whereby original features, layout and some 1920s detailing is being reinstated.

The following description is based on the site inspections undertaken by CPH prior to commencement of the restoration works.

#### Grounds

The cottage is set in a rectangular yard bordered by a white-painted picket fence, erected during the 1980s. Well-established date palms and Norfolk Island pines are remnants of garden plantings evident in the yard surrounding the cottage. A driveway and pedestrian gate provide access to the cottage from The Terrace while a third entrance gate facing York Drive with a concrete footpath continues east, leading to the cottage's front door (Figure 8).

Within the picket fenced enclosure of the cottage is a specimen of *Phoenix canariensis* (Canary Island Date Palm) and a specimen of *Araucaria heterophylla* (Norfolk Island Pine), species which are used extensively as ornamentals on The Hill and in adjacent King Edward Park (Figure 6 and Figure 8).

To the south of the cottage, original diamond crosshatch bricks create a small paved area (Figure 21). The diamond crosshatch bricks are imprinted with "BOWTELL" on the underside.<sup>4</sup> The brick pavers were installed as part of the original construction of the

<sup>4</sup> Bowtell Brickworks were based in Merewether, the suburb to the south of The Hill. <http://www.powerhousemuseum.com/collection/database/?irn=195397>

Shepherds Hill battery in 1890-91. Concrete paving is also present, directly south between the cottage and outbuilding.

### Exterior

The cottage has a simple corrugated metal, single pitch gabled roof with a timber post veranda attached to the northern and western elevations. It is constructed of a timber structural frame clad in 'board and batten' cream-painted timber weatherboards. Dark-green painted timber architraves, gable verges and vents add depth to its simplistic design. Some sections of the veranda have been infilled to enlarge the interiors of the cottage to the north east with later additions present to the east and south (Figure 8). Originally, the cottage was rectangular in shape (Figure 22) but has since been modified and is now irregular in shape due to the extensions and ancillary buildings (Figure 23 and Figure 24).

The cottage previously featured 3 chimneys (centrally, to the east and to the west), of which only one remained before the cottage was damaged in the April 2015 storm, as indicated in the aerial seen in Figure 8. According to the SoHI prepared by John Carr in relation to the restoration works, the skillion roof was repaired in late 2016 temporarily to prevent further water ingress and deterioration to the interiors of the cottage. The roof to the remainder of the building remained damaged.<sup>5</sup>

The western elevation (Figure 9) is prominently visible from within the streetscape of The Terrace and features a gable end with a central circular vent, skillion roof section to the south and a partial wrap around veranda with a separate corrugated metal skillion roof. The veranda flooring is of concrete and posts are of turned timber, separated by arched timber architraves. These veranda characteristics wrap around the northern elevation, along with the corrugated metal skillion roof (Figure 10). Within the western elevation only, the timber posts are arranged in sets of two (Figure 9).

The southern elevation (Figure 12) includes an extension to the south east, where a bathroom and sunroom were added at a later date, resulting in the extension of the main roof. The roof to this section is of a skillion design, extending south from the main gabled roof section of the cottage and extension over the south-eastern extension. There are a series of windows and doors present within this elevation, however, they have been boarded up. These windows, along with the window to the southern elevation of the kitchen, are a later addition and differ in appearance to other windows seen in the cottage. The extension is clad in rusticated weatherboards with vertical tongue and groove lining boards to the extension's eastern elevation.

The external eastern façade (Figure 11) features a gable end with a central circular vent (as seen in the western elevation), a boarded doorway and an attached laundry that is at a lower height to the main cottage, with a separate gable end and external entrance within the eastern elevation. The laundry is in the same timber weatherboards as the rest of the cottage. Also evident in this elevation is the skillion roof to the south, visible behind the laundry building.

Access to the cottage can be gained from within an entrance located within the north-eastern corner of the cottage, within the northern elevation (Figure 11). As previously identified the veranda and separate skillion roof extends from the western elevation, wrapping around to the north and terminating where it meets the entrance which has a separate gable end (with timber finial at the apex). Adjacent to the enclosed entrance in the north-eastern corner is an enclosed sunroom, with a separate skillion roof at the same height as the veranda roof.

A face brick, skillion roof outhouse incorporating two toilets and a storage area is located within the cottage grounds, south of the cottage (Figure 21). The outhouse was constructed in association with the cottage and appears in the specification from 1890. To the east of the outhouse a metal aerial with small substation extends approximately 10m high (a later addition used by Marine Rescue). The structure was modified in 1996 to include toilet facilities.

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<sup>5</sup> Carr, John, Shepherds Hill Cottage Storm Damage Repairs SoHI Rev E, February 2017, p.13



## Interior

The physical fabric of the cottage interior has been substantially altered during the necessary asbestos removal. The original room configuration remains essentially unaltered and includes the following rooms of approximately 3.5m in height:

- Living room (Figure 17)
- Dining room (Figure 18)
- 3 bedrooms (Figure 17 and Figure 18)
- 2 sunrooms (Figure 19 and Figure 20)
- Kitchen (Figure 20)
- Bathroom (Figure 19)
- Laundry (Figure 11)

Despite the damage, decorative timber architraves including timber corbels and a section of the picture rails still remain (Figure 13). In some sections the timber has been painted, while others remain unpainted. Throughout the cottage, polished timber floorboards of different timber varieties line the floor. Although both chimneys have been damaged, the brick fireplace hearths remain with little damage sustained.

Evidence of decorative plaster ceiling mouldings in the main living areas of the cottage remain, however, in several rooms contemporary lighting fixtures have been screwed into the ceiling. Smaller ancillary rooms display exposed timber weatherboards supported by crossed timber beams with evidence of plaster sheeting (originally covering the timber weatherboards) remaining in some areas (Figure 14). Infilled veranda spaces are unadorned, with no insulation and concrete floors present (Figure 15). Inbuilt storage cupboards and fixtures still remain in the former kitchen and bedroom (Figure 16).

The 2017 Statement of Heritage Impact (SoHI) notes the following details regarding the interiors of the cottage. An interpretation of the original layout and function of the rooms can be seen in Figure 22:<sup>6</sup>

*The lack of a stepped wall in Bed 3 of the Shepherds Hill cottage explains the gap to the ceiling lining boards in the Dining Room which was sheeted over by fibrous plaster and false beams in the 1920s makeover. The Bath and Sunroom 2 were added later as evidenced by the alterations to the roof and wall structures exposed as a result of removal of asbestos sheeting...*

*There is physical evidence the whole of the cottage interiors were originally timber lined, including the Master Gunner's front rooms. The interior design changes have been made in at least two separate periods to account for the differing styles between rooms. Bedrooms 1 and 2 are decorated in the late Victorian style with traditional skirtings and architraves and dado or chair rails. The picture rails appear to be later. The Lounge and Dining room have been decorated in the 1920s Bungalow style with plate rails to walls and tapered architraves and splayed skirtings. False beams have been added to the dining Room which again is typical for 1920s Bungalow interiors.*

It should also be noted that within Bedroom 3, Kitchen and Dining Room, the fibre plaster sheeting seen in other rooms is not present and the timber lining boards are exposed (Figure 18, Figure 19 and Figure 20). The north-eastern sunroom is also a later addition and was originally an open section of veranda. This is clearly evident in the fabric of this section of the cottage whereby wall linings have been introduced and there are small windows which are stylistically in contrast to the windows seen in other areas of the cottage (Figure 11).<sup>7</sup>

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<sup>6</sup> Carr, John, Shepherds Hill Cottage Storm Damage Repairs SoHI Rev E, February 2017, p.8

<sup>7</sup> Carr, John, Shepherds Hill Cottage Storm Damage Repairs SoHI Rev E, February 2017, p.8

The laundry structure to the east dates from c.1920 (Figure 141). The structure has been tacked on to the eastern façade and partially obscures the base of the double chimney to this elevation. According to John Carr, locating the laundry in this position was not uncommon, "...as the Coal Shed and other service outbuildings are located opposite on the southern side of the courtyard." In addition, locating the laundry to this elevation prevented unnecessary intervention into the veranda or layout of the interiors of the cottage.<sup>8</sup> There is no internal connection between the main cottage and the laundry, which is accessible via an entrance located within the southern elevation (Figure 11).

The structural integrity of the cottage was assessed by Mott MacDonald and is noted as being in a good condition, as follows:<sup>9</sup>

*The structural fabric of the cottage is in good condition with few significant defects. The cottage is currently in a vulnerable state with missing sections of roof that is likely to cause rapid deterioration of the structural framing if not rectified as a matter of urgency. No structural remedial works are specified in this report. Some alteration or replacement of individual framing members may be required to enable installation of new roof cladding however the extent of such works should be determined by the contractor during site works.*

The following images provide an overview of the condition and configuration of the cottage, as evident during the site inspections undertaken by CPH in 2016.



Figure 8: Aerial view showing the configuration of the roof and garden, prior to the storm of April 2015. Note the one remaining chimney present. The grounds within the boundary of the picket fence appear to have been maintained in this aerial image but were overgrown during the site inspections undertaken

<sup>8</sup> Ibid, p.10

<sup>9</sup> Mott MacDonald, Structural Report Shepherds Hill, Revision A, June 2016, p.1

by CPH. The fence also forms an informal curtilage around the cottage. (Source: SIX Maps accessed 21 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 9: The cottage looking east towards the Tasman Sea and the Observation Post which is visible in the background. Note the extension to the southern elevation, damaged to the roof, concrete paving between the cottage and outbuilding and overgrown surrounding garden. The Marine Rescue aerial is also visible.



Figure 10: Cliff Street looking east towards the cottage. The wrap around veranda is clearly visible from within this elevation along with the gable end and circular vent detailing. The ground, as evident in the photo has a slight incline towards the north-east.





Figure 11: Eastern and northern elevations showing the gable end with circular vent, laundry extension and separate gable end to the main entrance. The infilled sunroom is also visible along with the temporary metal fence and picket fence from the 1980s.



Figure 12: The western and southern elevations of the cottage. Note the concrete slab between the cottage and shed and concrete paths that lead from The Terrace.



Figure 13: Entry hallway with decorative timber architraves and corbels (left) remaining fireplace and timber floors (right). The masonry fireplace was installed in the 1920s and was substantially damaged in the April 2015 storm. It is also leaning into the room and is not considered to be in a typical style from the 1920s.



Figure 14: Weatherboard ceiling with crossed timber beams in a smaller ancillary room (left) evidence of decorative plaster moulding in the main living area (right). Note the damage incurred to the ceiling as a result of water ingress caused by openings to the roof following the April 2015 storm.



Figure 15: Infilled veranda section along the southern elevation of the house known as Sunroom 2. Evidence of the original southern façade, prior to the infilling of this section of the veranda is present including windows and external timber weatherboards.



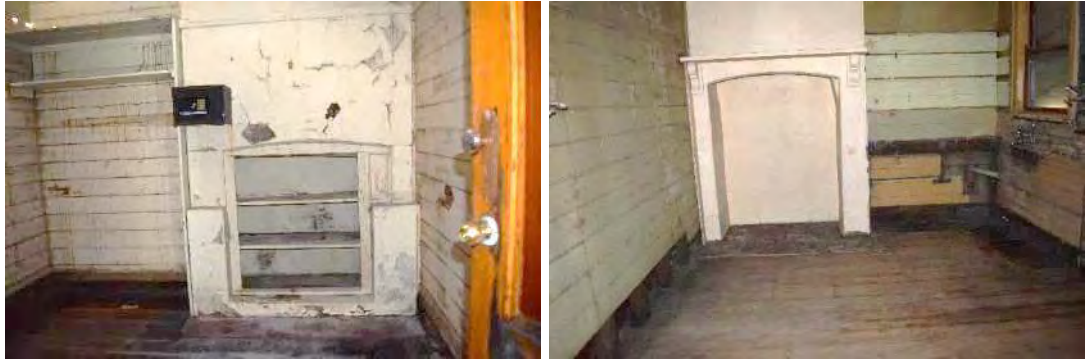


Figure 16: Inbuilt storage and fixtures/fittings in the former bedroom (left) and kitchen (right).



Figure 17: Internal views of the living room showing dado rails and skirting removed (left) and bedroom 1 with a decorative fireplace and timber mantle visible (right).



Figure 18: Internal views of Bedroom 2 with a fireplace with a timber mantle, similar to Bedroom 1 visible (left). The image on the right is of the interior of Bedroom 3 where the walls consist of timber boards.



Figure 19: Internal views of the Dining Room where picture rails and skirting have been removed (left) and the former bathroom, located in Sunroom 2 (right, southern extension).



Figure 20: Internal views of the kitchen (left) and Sunroom 1 (right). Note the kitchen no longer contains fabric relating to its use and the Sunroom is clearly visible when entering from the main entrance.



Figure 21: External view of the brick outhouse building located to the south of the cottage (left) and a detailed view of the diamond hatched paving found externally within this area (right). Recent historical research has indicated this brick paving was laid in c.1908. As the laundry is a later addition and the paving has been arranged around the structure to the south, it is most likely a later addition to the site.



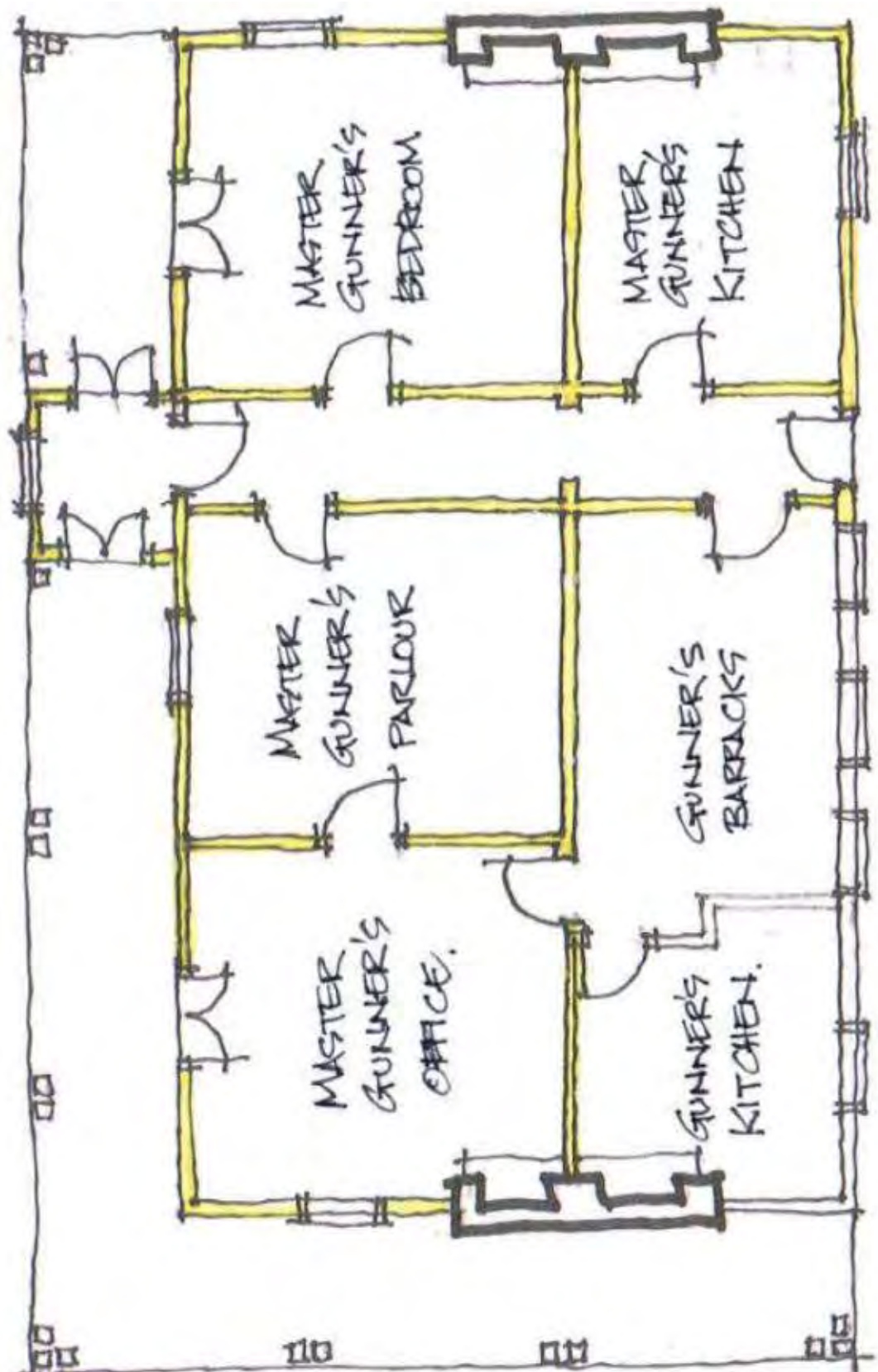
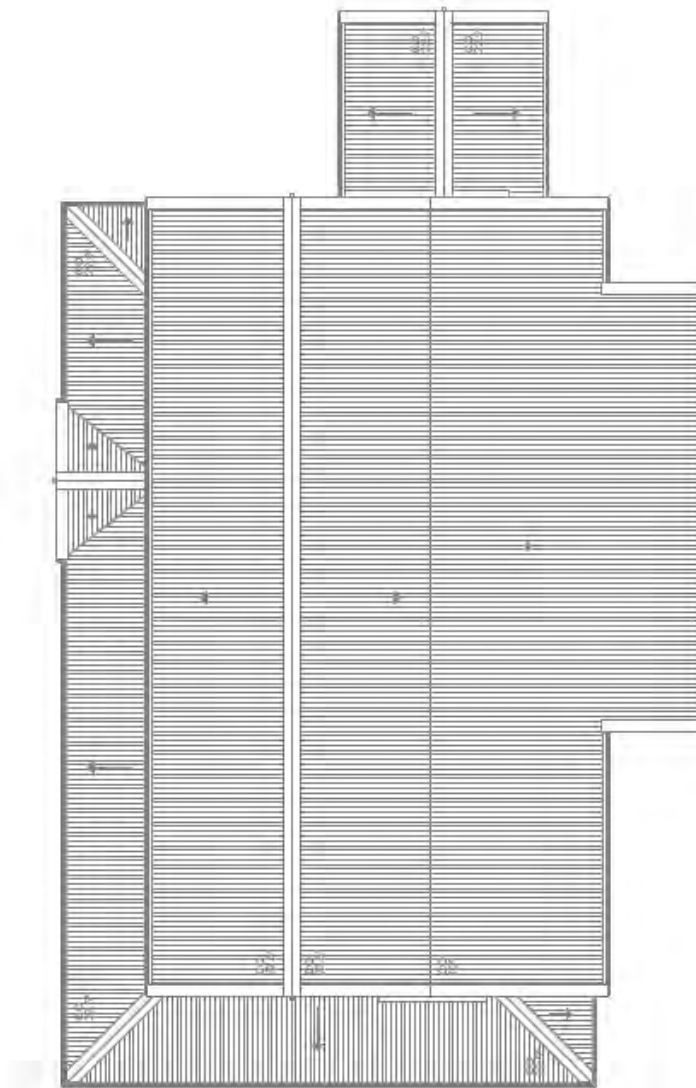


Figure 22: Interpretation of the potential original layout and use of rooms of the cottage at Shepherds Hill. This layout is considered to be the general standard layout used for Gunner's Cottage in the late 19th century. (Source: Carr, John, Shepherds Hill Cottage Storm Damage Repairs SoHI Rev E, February 2017, p.8)





**EXISTING ROOF PLAN** SCALE 1:100  
Shepherds Hill Cottage Refurbishment

Figure 24: Existing roof plan showing the configuration of the roof, prior to conservation works. (Source: Curran, drawing no. A101, revision A, 2 August 2017)



CITY PLAN HERITAGE P/L - CONSERVATION MANAGEMENT PLAN: SHEPHERDS HILL DEFENCE GROUP MILITARY INSTALLATIONS - MARCH 2019 35/349

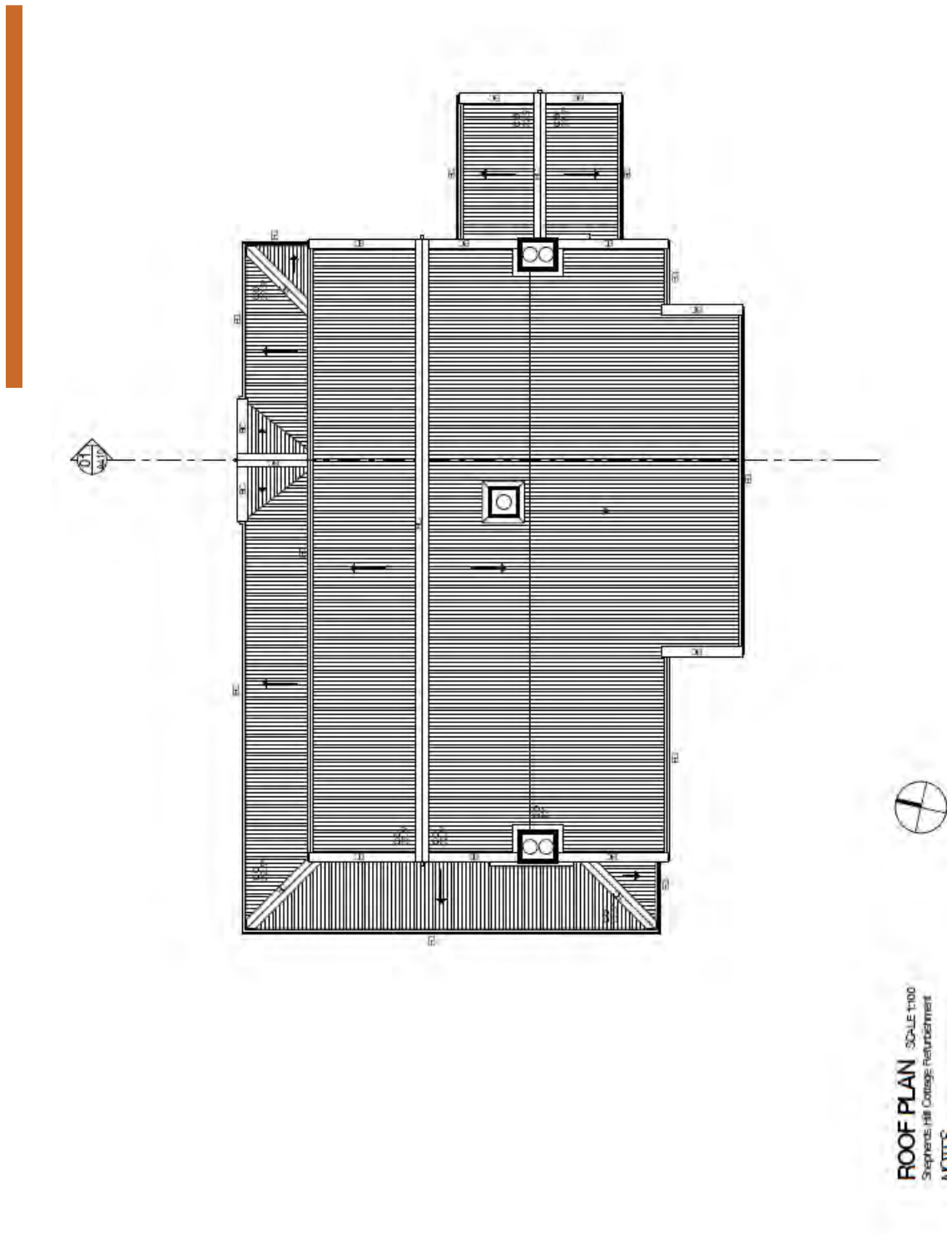


Figure 26: Anticipated roof layout of the cottage following conservation works. (Source: Curran, drawing no. A210, revision A, 2 August 2017)



### 3.2.2 Gun Emplacement and Tunnels

The gun emplacement consists of several built elements located both above and below ground, situated between the cottage and the Battery Observation Post. The majority of fabric is located underground (approximately 90%), with only the DRF stations above ground (Figure 27 and Figure 28). The gun pit and entry ramp are visible and accessible from above ground.

The following paragraphs explore the gun emplacement elements located above and below ground separately.

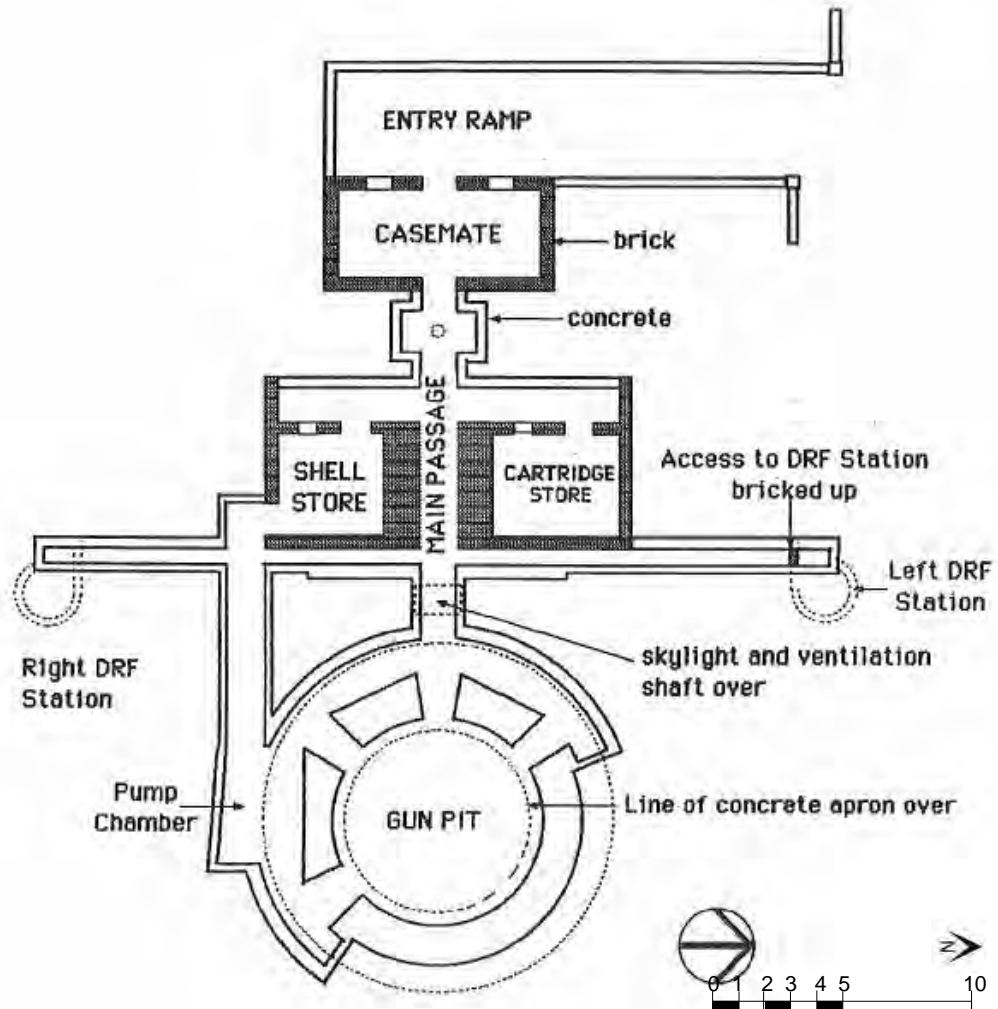


Figure 27: Plan for the Gun Emplacement showing built elements above ground (dotted lines) and below ground (solid lines). (Source: Shepherds Hill Cottage and Surrounds, Conservation Study, Gardner Browne, 1984)



Figure 28: Detailed aerial view of the site showing the above ground gun emplacement structures. (Source: SIX Maps accessed 29 August 2017 via <https://maps.six.nsw.gov.au/>)

### Above Ground

Elements of the gun emplacement that are visible above ground are the gun pit, DRF (depression range finder) stations and a ventilation shaft with a skylight. These elements are indicated by the dotted lines in the plan for the gun emplacement seen in Figure 27 .

### Gun Pit

The gun pit was originally constructed to hold the 8-inch gun installed at 41 The Terrace in 1890. The pit was required to conceal the gun when not in use or when in the firing position and was accessible through several underground passages. The pit is located directly east of the cottage and is set behind the Battery Observation Post (Figure 28). The pit is currently not accessible from above ground as a railing has been installed around the perimeter. However, this barrier has not prevented people from discarding their litter into the pit which remains uncovered.

As seen from ground level, the pit is entrenched beneath the ground and is circular in shape with a concrete edge that tilts downwards toward the centre (Figure 29). This edge provides some shading within the pit and obscures some areas from view when viewing from behind

the railing at ground level. The walls are constructed from reinforced concrete which appears to have also been used for the ground. Within the walls are several door openings which lead to underground sections of the gun emplacement.

Internally there is very little evidence of the disappearing 8-inch gun in the pit, however, there are two metal rings centrally placed within the ground of the pit which indicates where the gun would have been installed. The centre of this circle is overgrown with grass and weeds and filled with rubbish.

### **Skylight/Vent**

The skylight/vent is located west of the of the gun pit, directly above the main passage before entering the pit as indicated in Figure 29. As viewed from above ground, the vent/skylight consists of a central square metal vent encased within a very badly corroded metal frame, surrounded by concrete and then a series of bricks and some areas of concrete. The skylight/vent is also surrounded by a railing which prevents pedestrians and visitors from physically accessing the vent.

### **DRF Stations**

There are two DRF stations above ground which are located directly north and south of the skylight/vent (Figure 30). Both seem to be at an equal distance from the gun pit and skylight/vent and were once accessible from the underground tunnel network, however, they have since been infill and this is no longer the case. The DRF stations were used as posts to assist with scoping for potential targets in the water north and south of the disappearing gun pit.

Both DRF stations are of relatively the same layout and design with each station consisting of a main rectangular pit with a circular end. Each pit includes concrete rendered walls that have significantly worn in areas. Internally, the pits have been partially filled in with sand and rubble which is present in both, reducing the depth of the pits significantly. The DRF stations are surrounded by gravel and fences which prevent access to the pits. However, this has not prevented people from disposing of their rubbish in the pits.

### **Other Above Ground Structures**

Figure 27 does not indicate the presence of another above ground structure which is located towards the northern boundary of the site, within proximity to the northern DRF station. The structure is an above ground DRF station (Figure 31) and is separated from the northern DRF station by a pedestrian footpath which winds through the site, providing access to various areas.

The structure is geometric in form with a semi-circular area facing east towards the water. The structure does not have a roof and the walls along the western side of the structure are slightly higher than those facing east. The walls at the front of the structure are surmounted by a raised strip of metal which runs horizontally along the wall, reflecting the shape of the structure. The metal strip is raised to a level which allows for vision towards the water from within.





Figure 29: Views of the gun pit and skylight/vent from above ground. Note the corrosion to the skylight and rubbish present within the gun pit. The gun pit is also partially shaded by the concrete edge.



Figure 30: View of the DRF stations from above ground with the northern station pictured on the left and the southern station pictured on the right. These structures have been infilled with rubble present internally.



Figure 31: Above ground DRF station located towards the northern boundary of the site, within proximity to the inground northern DRF station. Note the metal guard to the eastern elevation and corrosion to the external concrete walls.

### Below Ground

Located directly beneath the gun pit, between the cottage and the Battery Observation Post, are a number of underground structures constructed in c.1890. The general layout of the underground structures is indicated in Figure 27. As evident in this plan, all underground structures extend from a main passage and are accessible via an entrance ramp located towards the northern end of the site (Figure 32). This ramp is also accessible from The Terrace via an access road that extends east and continues south towards the casement area (bollards currently prevent vehicular access). The masonry retaining walls outside the tunnel entrance (forming the road cut) remain in serviceable condition with only minor defects (Figure 33).

The archaeological report prepared by JCIS consultants notes the following information regarding the main access passage to the tunnels:<sup>10</sup>

*The main passage runs straight from the entry ramp through to the gun emplacement on an east-west axis. It has passages off to the shell magazine and the cartridge magazine as well as the two DRF posts and the passage behind the gun pit.*

*Although the passage would facilitate movement of material into the magazines and to the gun, having it straight is probably a design weakness as the blast from a shell exploding in the entry ramp area could be transmitted through the passage to the gun pit.*

Upon entrance into the underground area is the casement room which is constructed from reinforced concrete and brick (Figure 33). This then leads into the main passage, also partially constructed from reinforced concrete and brick, the shell store (southern side of main passage) and the cartridge store (northern side of the main passage) (Figure 34 and Figure

<sup>10</sup> JCIS Consultants, Appendix F, Archaeology Shepherds Hill, December 2016, p.14



35). There are the remains of a single rail used as a mounting for a small travelling crane in the roof of the passage, this would have been for the carriage of the shells (Figure 36). These two rooms are constructed from brick and are also identified as magazine storage facilities. Both the cartridge and shell magazines include remnants of lamp niches, the lamps would have been inserted from outside the magazine into glassed niches so there was no change of a spark from the lamps entering the magazine. The DRF stations have been partially infilled with rubble and sand and therefore are no longer accessible from underground. The North DRF Station is in fair condition although badly cracked and damaged. There is no evidence of the mounting for the DRF or and associated communication equipment. The South DRF position is circular with a rectangular trench to the rear. It seems to be slightly smaller than the northern DRF. It is in fair condition although badly cracked and damaged. There is evidence of the mounting for the DRF or and associated communication equipment in the form of rusted cables.

According to Gardner Browne, the roof of the underground structures, also referred to as the placement, are of concrete with a 25mm asphalt membrane.<sup>11</sup> This in turn is covered by approximately 1m of earth. Browne also notes that bricks were used in some areas in order to create a damp proofing membrane.<sup>12</sup>

The structural integrity of the gun emplacement and associated tunnels was assessed as being fair, as noted below:<sup>13</sup>

*The gun emplacement is a robust reinforced concrete and (most likely) masonry structure. Structural elements often contain partially embedded structural steel sections. Defects around the gun emplacement are typically minor, limited to surface corrosion of exposed structural steel elements and small areas of reinforcement corrosion and concrete spalling. The gun emplacement itself appears to have a functioning drainage system, however this system was not observed on site.*

*The adjacent system of tunnels and rooms are constructed of brick masonry and reinforced concrete with some embedded structural steel sections. Typical defects are similar to the gun emplacement, generally limited to surface corrosion of exposed structural steel and localised areas of reinforcement corrosion and concrete spalling.*

*The lowest areas of the tunnel system appear to be prone to flooding. There is a significant build-up of rubbish and debris in these areas that may be causing a blockage in the drainage system.*

*The masonry retaining walls outside the tunnel entrance (forming the road cut) remain in serviceable condition with only minor defects.*

The structural integrity of the above ground DRF stations is noted as follows:<sup>14</sup>

*The pits are of robust concrete construction. The pit walls have significant defects (large cracks, missing capping) but due to their construction and form are reasonably stable. The bases of the pits contain rubble that appears to be the remains of capping stones.*

The following images provide an overview of the current condition and configuration of the gun emplacement and associated tunnels.

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<sup>11</sup> Browne, Gardner, Shepherds Hill Cottage and Surrounds, Conservation Study, Newcastle City Council, 1984, p.18

<sup>12</sup> Ibid

<sup>13</sup> Mott MacDonald, Structural Report Shepherds Hill, Revision A, June 2016, p.2

<sup>14</sup> Mott MacDonald, Structural Report Shepherds Hill, Revision A, June 2016, p.2



Figure 32: View of the ramp entrance to the underground structures from the access road looking south and view of the entrance to the underground structures.



Figure 33: Detailed view of doorway entrance and internal view of the casement room.



Figure 34: Internal views of the underground tunnels showing the casement area and main passage. (Source: Alex Been, Mott MacDonald)



Figure 35: Internal views of the underground cartridge store and shell store. Graffiti is present to all interiors. (Source: Alex Been, Mott MacDonald)



Figure 36: Interior views of the underground tunnels including the main passage, passage to cartridge storey and shell store. (Source: Alex Been, Mott MacDonald)



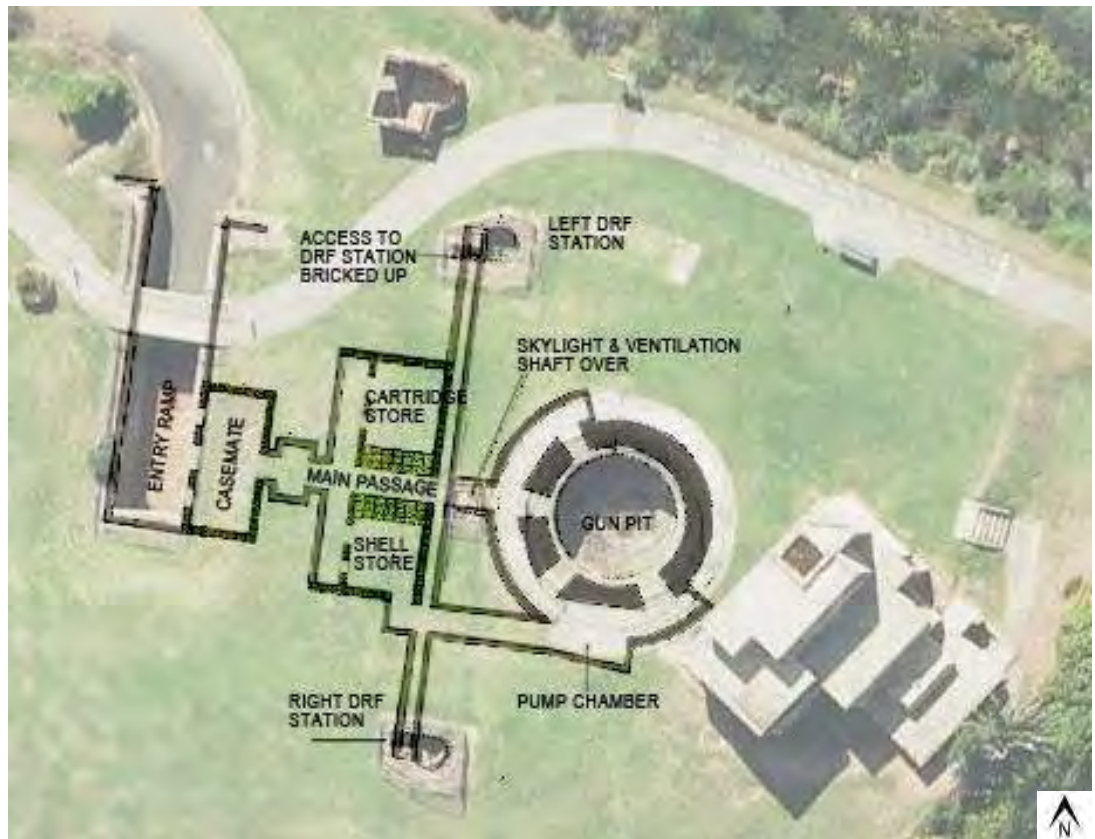


Figure 37: Overlaid aerial view showing the gun emplacement elements visible from ground level and the underground structures indicated in plan form. (Source: SIX Maps 2015 and Shepherds Hill Cottage and Surrounds, Conservation Study, Gardner Browne, 1984) Battery Observation Post

The Battery Observation Post is a World War II building commissioned in 1938 and built by contractor C Hutcherson of Homebush between the years of 1939 and 1940. It is located on an elevated topographical position and is prominently visible from the Tasman Sea. The location also affords extensive views from the Battery Observation Post to the surrounding area. The structure served as an observation post for various forces during World War II and was decommissioned shortly after.

The building is oriented east with all main windows located along this elevation, wrapping around on some levels towards the southern and northern elevations. The position for the Battery Observation Post was strategically chosen in order to take advantage of the views afforded by this location which were considered optimal for coastal defence purposes.

The following paragraphs describe the exterior and interior of the Battery Observation Post.

### Exterior

The Battery Observation Post is a geometric shaped building constructed from reinforced concrete with galvanised iron windows and doors. The building is approximately 8m tall and consists of five levels that step down towards the cliff face. Erosion has occurred to the land surrounding the building, particularly towards the eastern side and as a result, the foundations of the building are visible in some areas (Figure 38).

The western elevation of the building presents a relatively flat surface with three window openings located along the base (Level 3, Rooms 2 and 4).<sup>15</sup> This is in contrast to the other

<sup>15</sup> Note: For ease of reference, the labelling of rooms and levels follows the system implemented in Gardner Browne in the Conservation Study of Shepherds Hill, p.21



elevations which present a relatively complex assortment of cube like structures that make up the various levels of the building (Figure 39).

The northern elevation is generally arranged in an L-shape at its higher western point, with stepped lower sections projected to the east. A separate entrance with a metal bar door is provided to the west and provides access to the Battery Observation Post. Another separate entrance to the north east provides access to the Park Battery area (Figure 40).

The far eastern section of the building, comprising levels 1 and 2, is a later construction dating from 1942 and known as the Park Battery Observation Post and Search Light Directing Station. Due to the topography of the site, this section sits lower than the rest of the building and is partially imbedded into the ground (Figure 39). This is most likely for the protection of the beam of the searchlight from mist and sea spray (spume) similar to those searchlights in Malabar Headland and other coastal fortifications.<sup>16</sup> It is noted that in coastal locations a fighting light was found to work best if located about 20 metres below and to the flank of its gun. The placement of the Park Battery Observation Post and Search Light Directing Station at the lowest level of the structure was necessary due to its role in searching for possible targets and not to be affected by the mist from the sea.

The southern elevation again differs in appearance, primarily consisting of various cubic shapes that gradually decrease in height towards the east. The wrap around windows of Room 3 are clearly visible within this elevation (Figure 38).

Access to the building is gained externally from the southern and northern elevations. Each level includes banded window openings which have been partially enclosed through the use of galvanised iron bars. The windows located on the top tier of the building were partially enclosed and no longer offer a 180-degree view to the east.

The various changes that have occurred to the building are not evident externally, however, there is some evidence in the western façade of other structures that may have been attached to the building. In addition, the roof shows evidence of an aerial once mounted.

## Interior

Internal access was limited to the Battery Observation Post due to safety concerns and flooding experienced in the lower level. As such, the following description is based on information gathered from the site inspection and from the Gardener Browne Conservation Study.

Internally, there are ten observation rooms which develop over five levels and include concrete floors and walls (Figure 41). The interior condition of the Observation Post is poor with rubbish and remnant fabric present. The walls in particular are significantly worn with cracked and broken concrete present along with a number of holes, possibly created when mounting equipment and other objects. The walls underneath the window grills, particularly along the eastern side of the building, show evidence of rust stains. The ceilings are also in a poor condition with the eastern section of the building being particularly worn (Figure 40).

Not all the rooms are accessible internally and require external access from one of the three separate entrances (two towards the northern elevation and one to the southern elevation). There does not appear to be any remaining fabric internally relating to the previous uses of the building (e.g. equipment).

The Park Battery (level 1) is partially located underground.

An assessment of the structural integrity of the Battery Observation Post was undertaken by Mott MacDonald and was considered to be in a poor condition:<sup>17</sup>

*The observation post is a robust reinforced concrete structure, but is in generally poor condition. Erosion of earth on the southern side of the building is undermining the structure. The lowest level of the building is subjected to frequent flooding during rainfall. It appears that the internal and external drainage systems are inadequate*

<sup>16</sup> <https://malabarheadland.org.au/about/military-heritage/>

<sup>17</sup> Mott MacDonald, Structural Report Shepherds Hill, Revision A, June 2016, p.1

*or blocked. The majority of structural elements throughout the building are subject to active deterioration through corrosion of steel reinforcement and spalling concrete. Several elements are nearing structural failure and are at risk of collapse. Refer to the condition and repair schedule for further details. Major intervention is required to prevent ongoing, rapid deterioration of the building.*

Further information about the various functions of each of the rooms located within the Observation Post can be found in Section 4.



Figure 38: External view of the Battery Observation Post looking east towards the western elevation (left) and looking north towards the southern elevation (right). The building is highly geometric in form and no elevation is the same in appearance. The western elevation is the simplest in design and is relatively flat while the other elevations have various levels and projecting sections.



Figure 39: View of the front section of the Battery Observation Post looking north (left) and view of the eastern side looking west (right). Note the Park Battery section at the lowest level, a later addition to the structure.



Figure 40: View of the northern side of the Observation Post looking south (left) and internal view of Room 3, Level 3 (former Port War Signal Station operated by the Royal Australian Navy) (right).



Figure 41: Internal view of Room 2, located on level 3. Evidence of paint finishes can be seen and damage to interiors. This room is in a better condition to some of the other rooms within the Battery Observation post.

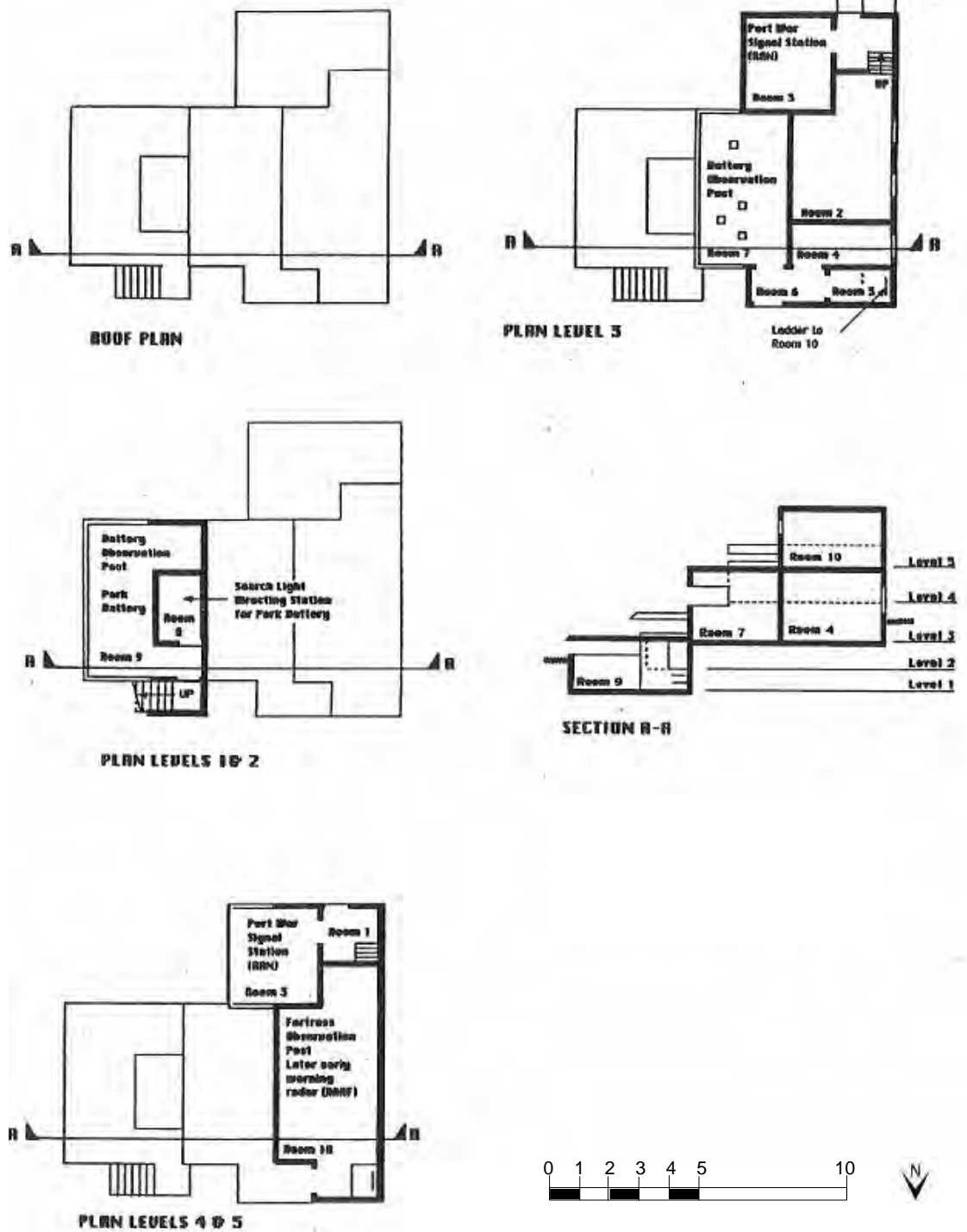


Figure 42: Plan for the Battery Observation Post dating from 1984. (Source: Shepherds Hill Cottage and Surrounds, Conservation Study, Gardner Browne, 1984)



### 3.3 Park Battery, No.1 Gun and Bunker (43 High Street, The Hill)

The Park Battery, no.1 gun and bunker is located south east of the main Shepherds Hill site (41 The Terrace) on a vegetated cliff behind the properties at 1 Cliff Street and 37 & 39 High Street (Figure 43). While it is located at a distance to the structures located at 41 The Terrace, it is pertinent to the heritage significance of the structures to the north east and is highly visible from the site. A path leads from the Strzelecki Lookout carpark to the Park Battery, no.1 gun and bunker, continuing north east towards the roof of the structure and south west to the south-eastern opening (Figure 44).

The Park Battery, no.1 gun and bunker is an irregular shaped open concrete structure set within the landscape of the site. It is located within proximity to 101b Memorial Drive, which is another military structure included in the Newcastle LEP listing for the Shepherds Hill Defence Group Military Installations (Figure 43).

The structure is generally semi-circular in shape, with an irregular geometric flat concrete roof (Figure 44). Within the roof are five horizontal raised strips running north west and south east along the roof structure (Figure 49). Vegetation can be seen growing within proximity and extending over the roof (Figure 49). The external concrete walls of the structure are relatively simple in form and shape, wrapping around the central opening. These external walls are covered in graffiti (Figure 48).

The eastern elevation is partially open, affording expansive views to the Tasman Sea. Within the structure is a semi-circular floor with a circular indentation towards the south-eastern end, extending outside of the structure as seen in Figure 44. Along the walls are three bench-like concrete structures (Figure 45 and Figure 46). The interior is also covered in graffiti and there is rubbish present throughout, particularly within the indentation within the floor. The surrounding vegetation also extends into the indentation, wrapping around the front of the structure (Figure 50).

The following assessment by structural engineer Alex Been of Mott MacDonald indicated the Park Battery, no.1 gun and bunker is in a fair condition:

*The searchlight bunker<sup>18</sup> is a generally robust reinforced concrete structure with the remains of a structural steel roof frame supported on the concrete perimeter walls. The concrete elements of the bunker are in reasonable condition with typically minor defects. The structural steel roof frame has severely corroded and suffered significant section loss in critical points in the frame. The frame is partially detached from the concrete walls, and is likely to further deteriorate leading to eventual collapse without some intervention.*

The following images provide an overview of the condition and configuration of the Park Battery, no.1 gun and bunker.

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<sup>18</sup> The name of the structure in the Mott MacDonald report is incorrectly identified as the searchlight bunker



Figure 43: Aerial view showing the location of the Park Battery, no.1 gun and bunker, circled in red. 41 The Terrace is indicated by the blue arrow and 101b Memorial Drive by the green circle. (Source: SIX Maps accessed 24 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 44: Close up aerial view showing the Park Battery, no.1 gun and bunker and the path leading north east from the Strzelecki Lookout carpark to the structure. Note the dirt part leads to the roof and bends around the structure to the south west, providing access to the north-eastern opening. (Source: Google aerial view accessed 11 September 2017 via <https://www.google.com.au/maps/place/Strzelecki+Lookout/@-32.9366114,151.7772885,48m/data=!3m1!1e3!4m5!3m4!1s0x0:0x771e4820b5c1be76!8m2!3d-32.9368196!4d151.7770135>)





Figure 45: Internal views of the Park Battery, no.1 gun and bunker showing the simple internal detailing consisting of concrete bench-like structure. The interiors have also been predominately covered in graffiti.



Figure 46: Internal views looking north east with sections of the exterior also present (left) and looking south west (right).



Figure 47: Detailed views of the opening of the Park Battery, no.1 gun and bunker opening. Note the simple design and form of the structure.



Figure 48: Views looking south west towards the north eastern external wall (left) and southern external wall (right). The eastern wall is visible when walking along the path that wraps around the building and continues south west.



Figure 49: Views of the roof looking north east (left) and south west (right). Note the raised sections and vegetation present. This area also captures water as visible in the image on the right.





Figure 50: Internal view of the Strzelecki Observation Post showing the circular indentation in the concrete floor and rubbish present.

### 3.4 Park Battery, No.1 Searchlight and Bunker, Tunnel and Engine Room

Access to these underground structures was not provided during the site inspections undertaken by CPH for the reasons explained in Section 2.5. The following description is based on existing documentation.

Located at 65 Nesca Parade, 101 Memorial Drive and underground are a group of structures associated with the main Shepherds Hill site at 41 The Terrace and the Park Battery, no.1 gun and bunker. 65 Nesca Parade is occupied by privately owned residential flat buildings (excluded from the listing) with the southern-most having been constructed on top of a concrete structure, known as the Searchlight Engine Room. The Searchlight Engine Room is connected to a tunnel that continues south, underneath Memorial Drive, leading towards the cliff face, where the No.1 Searchlight is located (101 Memorial Drive, also known as the Searchlight Bunker, Lot 2 DP 1145960). The tunnel also extends through 18 and 20 Memorial Drive (Lot 0, SP 14612 and Lot 52, DP 32621) (Figure 51 and Figure 52). The Newcastle Memorial Walk, designed by EJE Architecture, is a bridge that extends over the installation, particularly the tunnel.<sup>19</sup>

Access to these elements is limited and primarily gained via the Searchlight Engine Room, which is located on private property.

These three structures were constructed during World War II in order to assist the defences at 41 The Terrace in defence against sea craft and warships that could potentially attack Newcastle from the Tasman Sea. The Searchlight Engine Room and tunnel were constructed to provide power and underground access to the No.1 Searchlight and date from 1942. Construction of these structures was undertaken alongside other Newcastle Defence

<sup>19</sup> For further information, reference should be made to the following website <http://www.architectureanddesign.com.au/news/lest-we-forget-five-projects-that-capture-the-spir>

projects at the time, including the construction of the Battery Observation Post at 41 The Terrace.<sup>20</sup>

The Searchlight Engine Room is set within a site that has limited landscaping present and is predominately surrounded by concrete paving with some low scale perimeter trees present. As the Tunnel runs underneath Memorial Drive and the boundary of the SHR listing is limited to internal fabric, there is no landscaping present. In contrast, the No.1 Searchlight is prominently located within the cliff face below Memorial walk, on a promontory with a sloped rocky topography covered in vegetation (Figure 52).

The following map provides an indication of the approximate location and extent of the underground structures at 65 Nesca Parade, 101 Memorial Drive and underneath Memorial Drive.

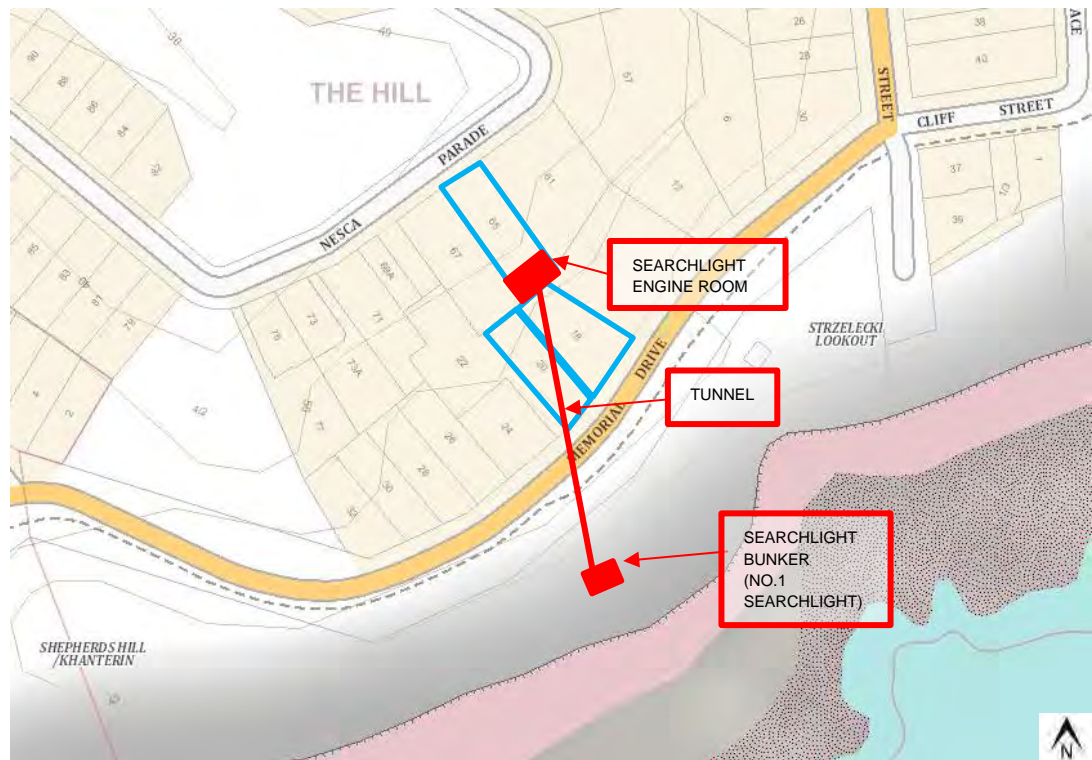


Figure 51: Map showing the approximate location of the Searchlight Engine Room, Tunnel and Searchlight Bunker, indicated in red. The residential properties the structures are under have been outlined in blue. (Source: SIX Maps accessed 24 August 2017 via <https://maps.six.nsw.gov.au/>)

<sup>20</sup> Duncan, Carol, "The Memorial Drive Tunnel," ABC Newcastle website, 20 August 2013, accessed 24 August 2017 via <http://www.abc.net.au/local/photos/2013/08/20/3829654.htm>





Figure 52: Aerial view showing the approximate location of the Searchlight Engine Room, Tunnel and Searchlight Bunker, indicated in red. (Source: SIX Maps accessed 24 August 2017 via <https://maps.six.nsw.gov.au/>)

### 3.4.1 Searchlight Engine Room

The Searchlight Engine Room is a single storey rectangular shaped mass concrete structure, similar in appearance to the Battery Observation Post located at 41 The Terrace. It is located towards the south-eastern end of 65 Nesca parade, underneath a two-storey 1960s red brick apartment building (one of three located on the site) (Figure 53). The topography slopes down towards the north-western end of the site and is highest at the rear, where the Searchlight Engine Room is located (Figure 54). The structure has been painted in an orangecolour externally (Figure 55).

The main entrance doors, located within the northern elevation, are constructed of steel and in order to prevent unauthorised access, has been boarded up. As an apartment building has been constructed on top of the Searchlight Engine Room, there are a number of downpipes and ancillary structures (e.g. carport) that have been attached to the Searchlight Engine Room structure (Figure 55).

The Searchlight Engine Room was responsible for supplying power the No.1 Searchlight and was required to be constructed in a way to ensure it could withstand bomb blasts, and was built in the same way as the Battery Observation Post whereby its form follows its function.<sup>21</sup>

Documentation regarding the Searchlight Engine Room suggests there is rubbish within the interiors and the steel doors are original.<sup>22</sup> The oblique view seen in Figure 53 also indicates the structure may have been painted in order to blend it in with the rest of the apartment building. The following images provide an overview of the appearance of the Searchlight Engine Room.

<sup>21</sup> Duncan, Carol, "The Memorial Drive Tunnel," ABC Newcastle website, 20 August 2013, accessed 24 August 2017 via <http://www.abc.net.au/local/photos/2013/08/20/3829654.htm>

<sup>22</sup> Ibid



Figure 53: Oblique view showing the site of 65 Nesca Parade (red) and the location of the Searchlight Engine Room, underneath the apartment building located to the rear of the site (blue). Note the topography slightly increases to the rear, where the subject structure is located. The tunnel also extends to the rear of the image. (Source: Google Maps 3D, accessed 30 August 2017 via <https://www.google.com.au/maps/place/65+Nesca+Parade,+The+Hill+NSW+2300/@-32.9358254,151.7736267,84a,35y,101.44h,71.34t/data=!3m1!1e3!4m13!1m7!3m6!1s0x6b73146b9e35241d:0xf96956de296ebeca!2s65+Nesca+Parade,+The+Hill+NSW+2300!3b1!8m2!3d-32.9364782!4d151.7753019!3m4!1s0x6b73146b9e35241d:0xf96956de296ebeca!8m2!3d-32.9364782!4d151.7753019>)



Figure 54: View looking south east towards 65 Nesca Parade. Note the Searchlight Engine Room is not easily viewed from the street as the two front residential flat buildings obscure it from view.





Figure 55: View of the Searchlight Engine Room looking south east towards the northern elevation. Note the structure has been painted to blend in with the residential flat building above. Part of the building is recessed into the hill.



Figure 56: Photograph of the residences within Memorial Drive that are located above the tunnel, no.18, 20 and 24 Memorial Drive.



Figure 57: Internal view of the Searchlight Engine Room looking west. Note the boarded window and limited internal lighting present. (Source: Duncan, Carol, "The Memorial Drive Tunnel," ABC Newcastle website, 20 August 2013, accessed 24 August 2017 via <http://www.abc.net.au/local/photos/2013/08/20/3829654.htm>)

### 3.4.2 Tunnel

The tunnel that connects the Searchlight Engine Room to the Searchlight Bunker is also known as the Memorial Drive Tunnel. It is concrete and brick lined structure with straight walls, approximately 150m in length.

The tunnels were originally used to house the cables that would operate the No.1 Searchlight, connecting it to its power source within the Searchlight Engine Room.<sup>23</sup>

Evidence suggests there is an internal mess hut located within the tunnel so that the No.1 Searchlight could be manned 24 hours and to allow for a quick changeover of guards. It is also noted that the space had a stove and possible beds, although this could not be verified.<sup>24</sup>

<sup>23</sup> "Shepherds Hill Defence Group Military Installations," NSW Land and Property Information website, accessed 24 August 2017 via [http://www.baseline.nsw.gov.au/heritage/heritageProperty/20.jsessionid=FD073C4D558D9D731DD237B969E45BAC?ref=d-5912750-p%3D6%26heritagePropertyName%3D\\*](http://www.baseline.nsw.gov.au/heritage/heritageProperty/20.jsessionid=FD073C4D558D9D731DD237B969E45BAC?ref=d-5912750-p%3D6%26heritagePropertyName%3D*)

<sup>24</sup> Duncan, Carol, "The Memorial Drive Tunnel," ABC Newcastle website, 20 August 2013, accessed 24 August 2017 via <http://www.abc.net.au/local/photos/2013/08/20/3829654.htm>





Figure 58: Internal view of the tunnel leading from the Searchlight Engine Room towards the Searchlight Bunker. Note the damp present to internal brick walls and the concrete roof. (Source: Duncan, Carol, "The Memorial Drive Tunnel," ABC Newcastle website, 20 August 2013, accessed 24 August 2017 via <http://www.abc.net.au/local/photos/2013/08/20/3829654.htm>)



Figure 59: Another view within the tunnel leading to the Searchlight Bunker. Corroded metal framing is visible around openings. (Source: Duncan, Carol, "The Memorial Drive Tunnel," ABC Newcastle website, 20 August 2013, accessed 24 August 2017 via <http://www.abc.net.au/local/photos/2013/08/20/3829654.htm>)

### 3.4.3 No.1 Searchlight

The No.1 Searchlight, also known as the Searchlight Bunker, is located directly underneath the Strzelecki lookout within the cliff face area (Figures 51 and 52). As such, it is partially imbedded in the cliff face (Figures 59 to 61). It is not accessible from the street and can only be accessed through the Searchlight Engine Room.

The cliff face is generally rocky with some vegetation present, surrounding the No.1 Searchlight (Figure 57). The location of the structure allows for expansive views of the ocean and along the coastline of Newcastle. Memorial Walk is located directly above the site.

As with the Park Battery, no.1 gun and bunker, the No.1 Searchlight is a single storey concrete structure with a flat roof and open section facing east. The eastern opening extends around the northern and southern elevations creating a deep recess within the structure. Due to the use of concrete, small scale of structure and simple design. The No.1 Searchlight is not easily viewed and visually recesses into the cliff face (Figures 59-61).

The following images provide an overview of the location and appearance of the No.1 Searchlight.



Figure 60: Oblique view looking north towards the southern elevation of the No.1 Searchlight. Note the structure recesses into the cliff face due to its size and the use of concrete. The design is similar to the Park Battery, no.1 gun and bunker. (Source: Google Maps 3D, accessed 30 August 2017 via <https://www.google.com.au/maps/place/Strzelecki+Lookout/@-32.9388057,151.7759448,54a,35y,340.12h,79.25t/data=!3m1!1e3!4m5!3m4!1s0x6b73146c7dcb8503:0x771e4820b5c1be76!8m2!3d-32.9368196!4d151.7770135>)

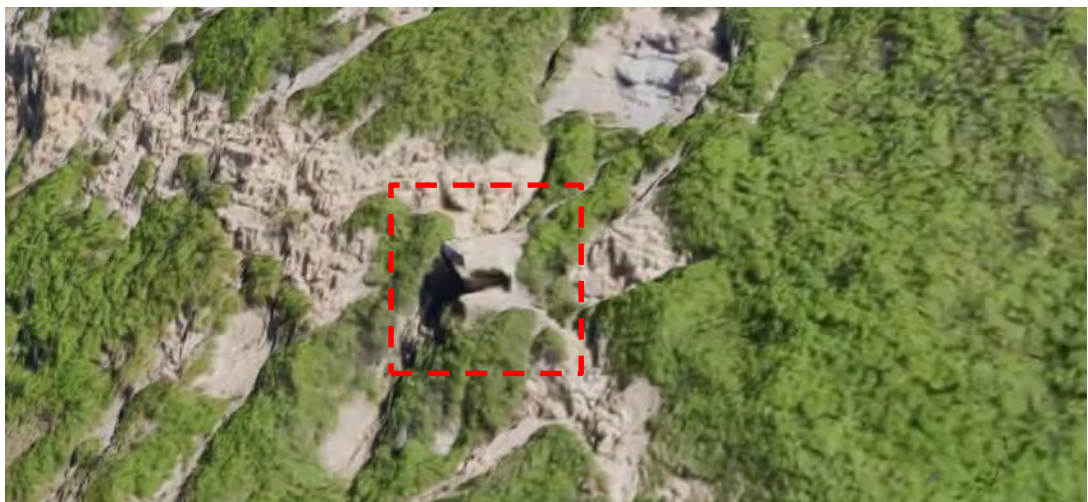


Figure 61: View of the northern elevation of the No.1 Searchlight. Again, the structure can clearly be seen to recess into the cliff face, which adds an element of disguise. (Source: Google Maps 3D, accessed 30 August 2017 via <https://www.google.com.au/maps/place/Strzelecki+Lookout/@-32.9388057,151.7759448,54a,35y,340.12h,79.25t/data=!3m1!1e3!4m5!3m4!1s0x6b73146c7dcb8503:0x771e4820b5c1be76!8m2!3d-32.9368196!4d151.7770135>)





Figure 62: Front on view showing the eastern elevation of the No.1 Searchlight. Note the flat roof and simple form of the structure. (Source: Google Maps 3D, accessed 30 August 2017 via <https://www.google.com.au/maps/place/Strzelecki+Lookout/@-32.9388057,151.7759448,54a,35y,340.12h,79.25t/data=!3m1!1e3!4m5!3m4!1s0x6b73146c7dcb8503:0x771e4820b5c1be76!8m2!3d-32.9368196!4d151.7770135>)

### 3.5 Context

The Shepherds Hill Defence Group Military Installations is located approximately 1.5km south of the Newcastle Central Business District (CBD) and 170km north of the Sydney CBD. It is located in a mixed residential and recreational area, encompassed within the local government area (LGA) of Newcastle City Council (Figure 63).

The Shepherds Hill Defence Group Military Installations is located adjacent to King Edward Park, which it historically was once a part of, along the Newcastle foreshore. The park is bounded to the east by the foreshore, to the north by Ordance Street and to the west by Wolfe Street, Reserve Road and The Terrace (Figure 63). York Drive and Shortland Esplanade provide vehicular and pedestrian access within the park (Figure 62). Directly north east of the subject site, within the park, is the historic Bogey Hole which is the first and oldest surviving ocean bath in Australia.<sup>25</sup> King Edward Park is describe on the SHI as follows:<sup>26</sup>

*The reserve and upper reserve - approx. 38ha, bounded by The Terrace, the extension of Bingle and Wolfe Streets, Ordance Street and the coast. The band rotunda, drinking fountain, Bogey Hole and Obelisk are all Heritage items.*

<sup>25</sup> State Heritage Inventory form for King Edward Park Group (Bogey Hole) Public Baths, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageltemDetails.aspx?ID=2170303>

<sup>26</sup> State Heritage Inventory form for King Edward Park Group - reserve, drinking fountain and rotunda, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageltemDetails.aspx?ID=2170301>

*Band Rotunda came from Centennial Park, Sydney where it was erected for Duke of York visit in 1900. One panel of the cast iron balustrade is missing.*

*Ornate Victorian drinking fountain of sandstone. Originally sited outside Newcastle Railway Station.*

As detailed above, the Hill HCA is described on the SHI as follows:<sup>27</sup>

*The area is described as the area to the immediate south of the CBD, bounded by King Street, Church walk Park off Darby Street, Bingle Street, Swan and Tyrrell Streets, The Hill. A map of the gazetted boundaries in Newcastle LEP 2003 is available from the Customer Enquiry Counter, King Street Newcastle. In terms of the defining features of the Hill, views from public areas over the harbour and ocean are an important part of the urban character of the Hill. Fine panoramic views are available from the Obelisk, filtered views from the Cathedral park, and many channelled street views or vistas of Stockton can be obtained, especially notable is Wolfe Street. Steep topography is a defining feature as are the mature Norfolk Pines in the grounds of Bishops Court which can be seen in photographs dating back to the 1870s. When viewed from Stockton, with the Cathedral at the top of the Hill, the area is characterised by the street structure which acts as a setting to the built form. There are multiple private and public buildings of heritage significance including the Cathedral and Horbury Hunt Hall, Jesmond House, Marlborough House, Woodlands, Newcastle East Public School, the water reservoir and Lead Light Tower, King Edward Park and Shepherds Hill military fortifications, the Obelisk and the James Fletcher Hospital. There are also significant historic sites of archaeological value including the site of the A Pit, off Church Street, the site of the C Pit, off Bingle Street, and avenues of significant plantings including Hills figs in Tyrrell Street. The streetscapes are interesting and comprise terrace houses, detached villas, apartments, and sandstone retaining walls.*

Shepherds Hill Defence Group Military Installations is in a very prominent elevated site at the southern end of the area of Newcastle known as The Hill. Shepherds Hill is part of a linear cultural landscape complex comprising Newcastle Memorial Walk, Strezlecki Lookout, King Edward Park, Newcastle Beach, Fort Scratchley, Nobbys Beach and Nobbys Headland. Together, these sites provide the residents of Newcastle and visitors to the area with unusual access to a wide range of natural and cultural heritage places within a relatively small area.

The immediate built environment surrounding the Shepherds Hill Defence Group Military Installations is focused towards The Terrace and Cliff Street and primarily consists of one and two storey residential developments. A significant portion of these residences, particularly along The Terrace, are listed as heritage items under the Newcastle LEP. As such, many of them pre-date the Shepherds Hill Defence Group Military Installations and are considered to contribute to the setting of the Shepherds Hill Defence Group Military Installations, due to their historic pre-existence. The area also features more contemporary developments that are on a similar scale and considered to sinuously integrate within their heritage context. These residences, both historic and new, are a mix of terraces and free-standing dwellings, with a mid-20th century flat building located at 36 The Terrace (Figure 63).

Shepherds Hill is also encompassed within the Bathers Way coastal walk which stretches for 6km from Nobbys Beach to Merewether Beach (Figure 68).

The following images provide an overview of the context of the Shepherds Hill Defence Group Military Installations sites.

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<sup>27</sup> State Heritage Inventory form for The Hill Heritage Conservation Area, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=2173906>





Figure 63: Map showing the surrounding streets around the three subject sites which are predominately serviced by Memorial Drive, The Terrace and Cliff Street. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)

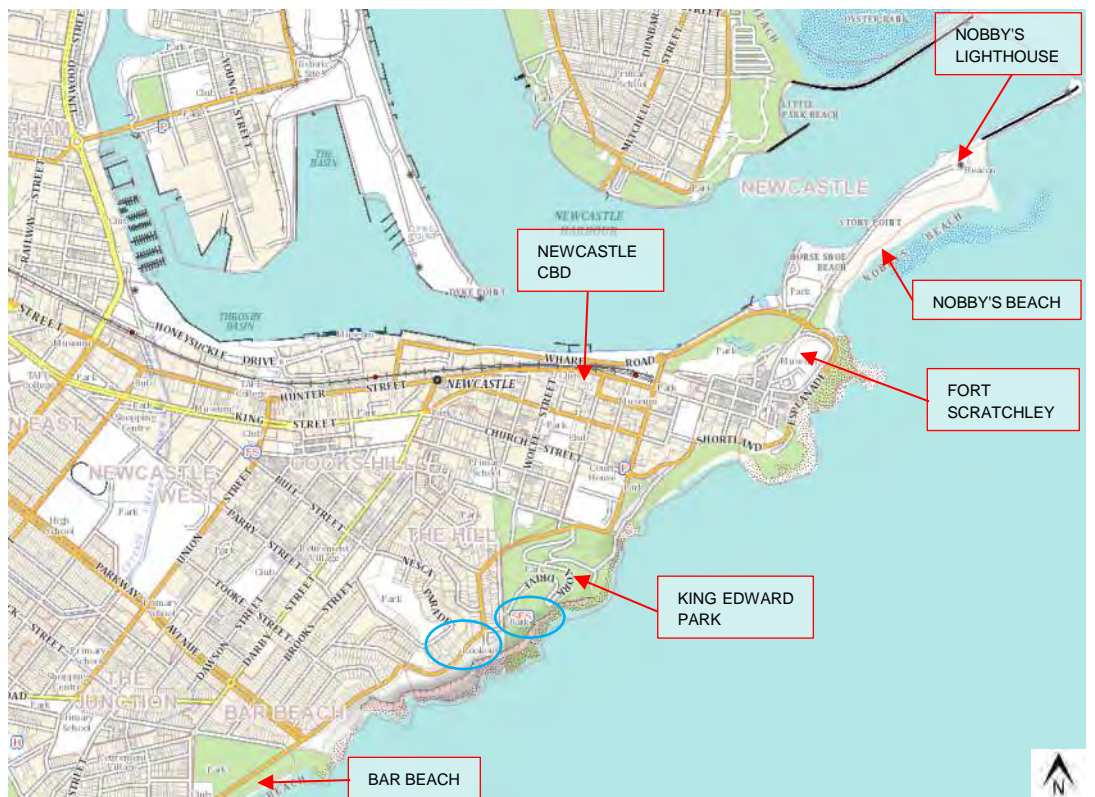


Figure 64: Map showing the location of the subject sites (circled in blue) in relation to the Newcastle CBD, Nobbys Beach, Fort Scratchley, Bar Beach, King Edward Park and Nobby's Head Lighthouse. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 65: View from Shepherds Hill looking towards King Edward Park, Fort Scratchley and Nobby's Head (left) and view of the Tasman Sea from within the site of 41 The Terrace (right). These views are historic visual links that were of paramount importance when Shepherds Hill was chosen as a potential defence site.



Figure 66: Residential buildings located southwest of the site along Cliff Street (left) and view looking north along Cliff Street/The Terrace (right).



Figure 67: View of the corner of Cliff Street from the cottage (left) and view from the Strzelecki lookout looking towards Shepherds Hill (right).



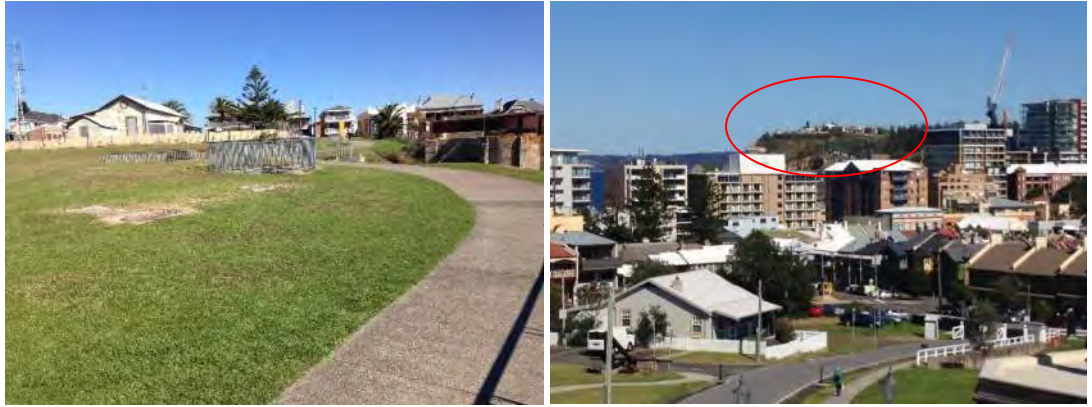


Figure 68: View from 41 The Terrace looking west towards the residences located in The Terrace (left) and a view from Fort Scratchley looking towards 41 The Terrace, circled in red (right).



Figure 69: View from 41 The Terrace looking towards the coast to the south (left) and view looking north along The Terrace from 41 The Terrace (right).



Figure 70: Memorial Walk is located directly south of the Shepherds Hill sites, partially extending over the No.1 Searchlight Bunker (left). The image on the right is of Memorial Drive, as viewed from the Memorial Walk, and the residences within the street.

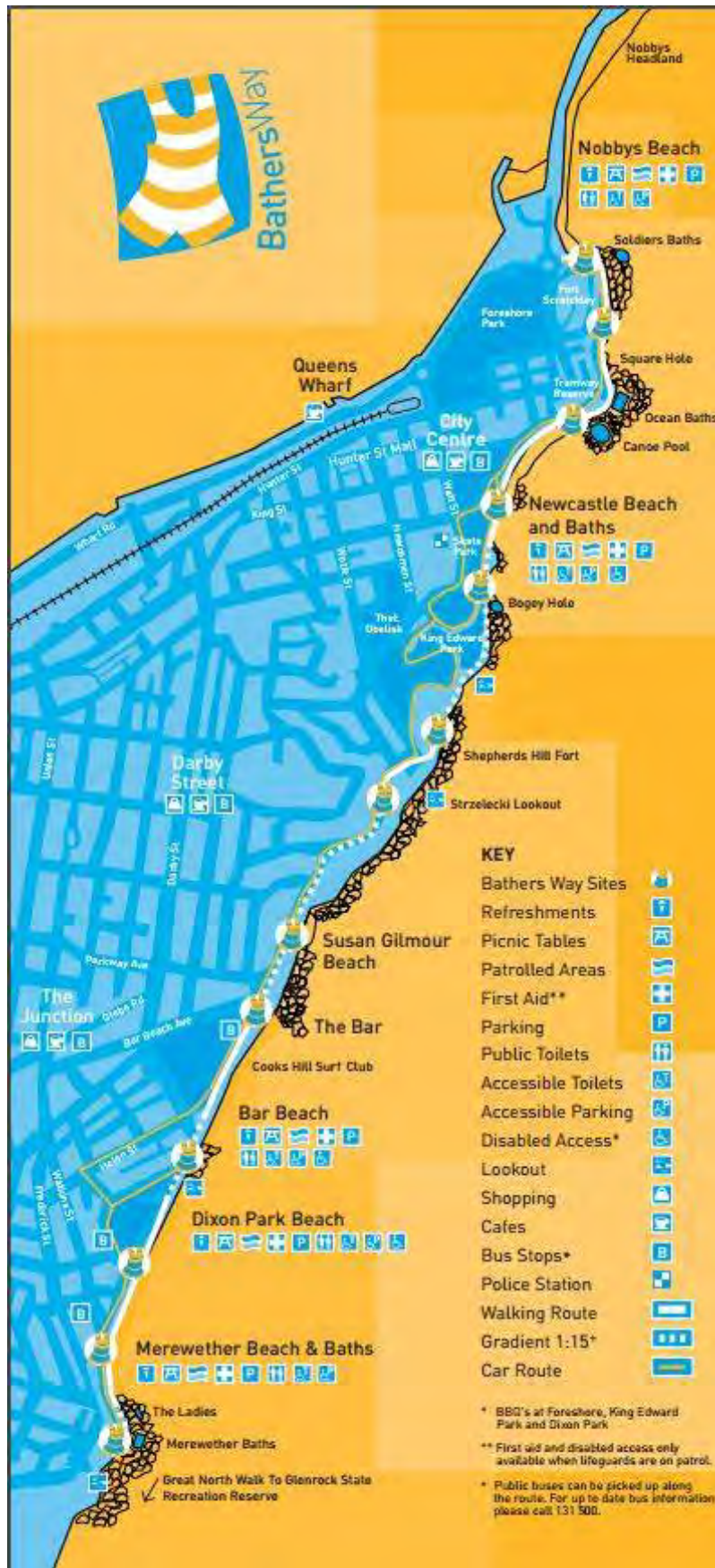


Figure 71: Map for the Bathers Way showing the Shepherds Hill site location which is centrally placed within the walk. (Source: Visit Newcastle Website, <http://www.visitnewcastle.com.au/bathers-way>)

### 3.6 Views and Vistas

As the study area consists of three separate sites, the following views and vistas explores each of these separately. Note: views to and from the items located at 65 Nesca Parade and 101 Memorial Drive could not be established as they are located on or accessed via private property (Searchlight Engine Room and No.1 Searchlight) or have no significant views, being located underground (tunnels).

#### 3.6.1 Views to 41 The Terrace

The Shepherds Hill Defence site at 41 The Terrace is located along the Newcastle foreshore and is visible from all northern, southern, eastern and western approaches, being located on a promontory. The site also forms part of a group of defence structures dotted along the coast of Newcastle including Fort Scratchley, Fort Wallace and the adjacent Park Battery. Due to the prominent topographical position of the site and height of 70m, the historic views in c.1890, when the site was first established for defence purposes, would have been approximately 17.73 nautical miles to the horizon (32.536km), which is in contrast to Fort Scratchley which would have been 11.98 nautical miles (22.187km). According to JCIS Consultants, the views afforded by the site for observation purposes was a major advantage in defending Newcastle and meant that a ship travelling approximately 12 knots could be identified at Shepherds Hill (41 The Terrace) almost half an hour before it was identified at Fort Scratchley. While development has occurred around the site, this historic view has remained the same:<sup>28</sup>

*...visually the Shepherds Hill site provides a vantage point to view almost all the aspects of the role of defending Newcastle. It is possible to easily pick out the early line of defences for which the gun emplacement was constructed. Key sites from the later defences can also be seen, as well as the key locations for the Japanese attack.*

*As a consequence of this, the Shepherds Hill site can be seen as important in demonstrating the principal characteristics for the defences of the Port of Newcastle and of the Japanese attack on the Port.*

The subject site is also visible from the streetscape of Cliff Street and The Terrace which is populated with suburban developments, a large number of which are heritage listed. Other main views include from the Tasman Sea, King Edward Park and the eastern end of the City and from Fort Scratchley.

There are strong visual links between Shepherds Hill, Fort Scratchley and Nobbys that are an integral part of their selection for maritime communication and coastal defence and an important component of their significance individually and as part of a complex. At the present time, there is a direct line of sight from the Gunner's Cottage and the Observation Post at Shepherds Hill to the fortifications and gun emplacements at Fort Scratchley and to the Nobbys lighthouse, with the breakwater at the mouth of the Hunter River also visible. Even though the river mouth itself is obscured by buildings, the landscape can be read and understood. High rise buildings in the eastern part of the Newcastle CBD are encroaching on the visual links between these historic sites and careful planning is required to ensure that these links are not interrupted or further compromised.


The following principal significant views to 41 The Terrace include the following:

- 1) the Tasman Sea (Figures 73 and 74);
- 2) Cliff Street (Figures 75 and 76);
- 3) York Drive and King Edward Park (Figures 77 and 78);
- 4) The Terrace (Figures 79 and 80);

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<sup>28</sup> JCIS Consultants, Appendix F, Archaeology Shepherds Hill, December 2016, p.13 and 23



- 
- 5) Shortland Esplanade (Figures 81 and 82); and
  - 6) Fort Scratchley (Figures 83 and 84).

These views are explained in detail in the following aerial view and photographs. The physical and visual setting identified is to be maintained and preserve for the appreciation of the site's exceptional heritage significance.



Figure 72: Aerial view of the subject site showing the main direct views and vistas to 41 The Terrace including 1) the Tasman Sea, 2) Cliff Street, 3) York Drive and King Edward Park 4) The Terrace and 5) Newcastle CBD 6) Fort Scratchley. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)





Figure 73: Close up aerial view of 41 The Terrace showing the main direct views and vistas within close proximity including 1) the Tasman Sea, 2) Cliff Street, 3) York Drive and King Edward Park 4) The Terrace. (Source: SIX Maps 2015)



Figure 74: View 1, looking towards Shepherds Hill and King Edward Park from the Tasman Sea. (Source: Bing Maps, <https://twitter.com/bing/status/448214118567129088>)





Figure 75: Views from the Tasman Sea towards 41 The Terrace are expansive and afforded from both the north, south and east. A full assessment of these views is beyond the scope of this report; however, the aerial image above provides an indication of the potential extent. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 76: View 2, from Cliff Street looking north east. (Source: Google Maps June 2015)



Figure 77: Views from Cliff Street to the site are limited as the street is lined to the north and south by residential developments that block visual access. In addition, the topography of Cliff Street declines to the west and the generally flat topography of 41 The Terrace means that only the cottage is visible from within the street. When approaching the corner of Cliff Street and The Terrace, views to the cottage are increased. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 78: View 3, looking south west towards Shepherds Hill from York Drive and King Edward Park. (Source: Google Street View June 2015)





Figure 79: King Edward Park and York Drive have an undulating topography that culminates to the south in 41 The Terrace; however, owing to the vegetation present within the park, directly views are somewhat obscured. The most prominent within the site is indicated in the image above, gained from York Drive within the park. Vegetation along the northern boundary of the site does somewhat obscure this view. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 80: View 4, from the Terrace looking south towards Shepherds Hill. (Source: Google Street View, June 2015)





Figure 81: Views from The Terrace looking south and south east are limited from the northern end of the street, due to the pine trees that line the eastern side of the street and decline in topography of the street to the north. These two aspects obscure 41 The Terrace from view until approximately mid-way down the street where views are possible to all structures. Views improve towards the southern end of the street. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 82: View 5, from Shortland Esplanade looking south towards Shepherds Hill. (Source: Google Street View, May 2015)





Figure 83: Shortland Esplanade is a long winding street that begins at the northern end of Fort Scratchley and continues south along the coast before terminating in King Edward Park. Views to 41 The Terrace are possible from a number of vantage points along the road, particularly near the Newcastle Ocean Baths. The view cone indicated above provides an indication of the view gained from this main vantage point along Shortland Esplanade. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 84: View 6, from Fort Scratchley looking south towards Shepherds Hill.



Figure 85: Throughout the Fort Scratchley site views to 41 The Terrace can be gained. These views are particularly prominent from the centre of the site and along the eastern boundary, as indicated in the view cone above. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)

### 3.6.2 Views to the Park Battery, no.1 gun and bunker

The Park Battery, no.1 gun and bunker, as previously detailed, is located on a sloping site, in close proximity to the cliff face to the south east and residential developments to the north. Due to the topography of the site, the surrounding development and vegetation, the Park Battery, no.1 gun and bunker is partially obscured from view. As such, there are limited views to the site, with main views including the following:

- 1) Strzelecki Lookout carpark (looking from the lookout fence line) (Figures 86 and 87);
- 2) The Tasman Sea (Figure 88);
- 3) 41 The Terrace (Figures 89 and 90);
- 4) Memorial Walk (Figures 91 and 92).

The following map provides an indication of where these views can be gained from.





Figure 86: Aerial view of the Park Battery, no.1 gun and bunker showing the main views to the site including 1) from the Strzelecki lookout carpark, 2) the Tasman Sea, 3) 41 The Terrace, 4) Memorial Walk. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 87: View 1, looking north east towards the Park Battery, no.1 gun and bunker from the Strzelecki Lookout carpark.





Figure 88: Views to the Park Battery, no.1 gun and bunker from the carpark are mostly gained directly from the fence line of the lookout, looking south east. Due to the topography of the cliff face, views from within the carpark are obscured. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 89: Views from the Tasman Sea towards the Park Battery, no.1 gun and bunker are expansive and afforded from both the north, south and east. A full assessment of these views is beyond the scope of this report; however, the aerial image above provides an indication of the potential extent. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)





Figure 90: View 3, looking south towards the Park Battery, no.1 gun and bunker from 41 The Terrace.



Figure 91: Views to the Park Battery, no.1 gun and bunker from within 41 The Terrace are possible from various points although most prominently gained via the south-eastern corner of the site, as indicated in the view cone above. The north-eastern elevation is most prominently visible with the rest of the structure obscured due to the topography of the site and surrounding vegetation. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)





Figure 92: View 4, looking north east from Memorial Walk towards the Park Battery, no.1 gun and bunker.



Figure 93: (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)

### **3.6.3 Views from 41 The Terrace, Park Battery, no.1 gun and bunker and Park Battery no.1 Searchlight, bunker, tunnel and engine room**

As with views to the site, views from 41 The Terrace are expansive owing to the location of the site on a promontory. Views from the Park Battery, no.1 gun and bunker are similar, although restricted to the north due to the contouring of the coast and the position of the site at a slightly lower topographical position to 41 The Terrace. Views from the Park Battery no.1 searchlight, bunker, tunnel and engine room are limited as most elements are substantially obscured from view from within the public domain.

Of particular note for 41 The Terrace are the views to the Tasman Sea, Fort Scratchley, King Edward Park and the Park Battery, no.1 gun and bunker. While views towards the west can also be gained, the historic importance of the views looking west and along the coast of Newcastle are of paramount importance, having endured little interference regardless of the development that has occurred in Newcastle since the first structures were constructed on the site in c.1890.

In regards to the Park Battery, no.1 gun and bunker, predominate views are focused towards the east and south with views to neighbouring properties towards the west also possible. Views north are limited.

As such, the following primary views can be gained from 41 The Terrace:

- 1) Fort Scratchley (Figures 94 and 95);
- 2) Park Battery, no.1 gun and bunker (as noted in Section 3.6.2 above) (Figures 98 and 99);
- 3) York Drive and King Edward Park (Figures 94 and 96);
- 4) The Terrace (Figures 100 and 101);
- 5) Cliff Street (Figures 102 and 103);
- 6) neighbouring residences (Figures 104 and 105);
- 7) Shortland Esplanade (Figures 94 and 97);
- 8) The Tasman Sea (Figures 106 and 107).

The following primary views can be gained from the Park Battery, no.1 gun and bunker:

- 9) The Tasman Sea (Figure 107);
- 10) residences to the west (Figure 108);
- 11) 41 The Terrace (Figure 109); and
- 12) towards the Strzelecki Lookout and Memorial Walk (Figure 110 and 111).

The following views can be gained from the Park Battery no.1 searchlight, bunker, tunnel and engine room:

- 13) towards Nesca Parade;
- 14) towards the Tasman Sea.

The following map indicates the location of these views from 41 The Terrace and the Park Battery, no.1 gun and bunker. Due to the multiple views that can be gained from the subject sites, the following map is in close up view, to indicate where specifically within the site these views can be gained. Distance views are provided in the view cones indicated in Figure 113.





Figure 94: Aerial view of the subject site showing the main direct views from 41 The Terrace and the Park Battery, no.1 gun and bunker including 1) Fort Scratchley, 2) Park Battery, no.1 gun and bunker (from 41 The Terrace) 3) York Drive and King Edward Park, 4) The Terrace, 5) Cliff Street, 6) neighbouring residences (from 41 The Terrace), 7) Shortland Esplanade, 8 + 9) The Tasman Sea, 10) residences to the west (from Strzelecki), 11) 41 The Terrace (from Strzelecki). (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 95: Aerial view showing the main views that can be gained from the Park Battery no.1 searchlight, bunker, tunnel and engine room 13) to Nesca Parade, 14) to the Tasman Sea. (Source: accessed 22 August 2018 via <https://maps.six.nsw.gov.au/>)





Figure 96: Views 1, 3 and 7, Fort Scratchley (view 1), King Edward Park, York Drive (view 3) and Shortland Esplanade (7) and visible from within 41 The Terrace, particularly along the northern boundary of the site.



Figure 97: View 1 - Views to Fort Scratchley, while possible, are limited due to the built-up development in Shortland Esplanade. Therefore this view is considered distant. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 98: View 3 - looking north and north east from 41 The Terrace towards King Edward Park and York Drive. Expansive views are possible from the northern boundary of the site and from within the site. This is due to the higher topographical position of 41 The Terrace. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)





Figure 99: View 7 - Shortland Esplanade can be viewed, from a distance, from within 41 The Terrace. Of particular note is the section of Shortland Esplanade where the Newcastle Ocean Baths are located, which is prominently visible from the site. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 100: View 2, looking south towards the Park Battery, no.1 gun and bunker from 41 The Terrace.





Figure 101: View 2 - Views to the Park Battery, no.1 gun and bunker from within 41 The Terrace are possible are various points although most prominently gained via the south-eastern corner of the site, as indicated in the view cone above. The north-eastern elevation is most prominently visible with the rest of the structure obscured due to the topography of the site and surrounding vegetation. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 102: View 4, looking north along The Terrace from 41 The Terrace.





Figure 103: View 4 - views along The Terrace looking north and possible from the western end of 41 The Terrace and some views are possible from within the site; however, these are restricted due to the palm trees located along the eastern side of the road, within King Edward Park. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 104: View 5, Cliff Street looking west from 41 The Terrace. Views to the street are mainly gained from the western boundary of the site and from within the grounds of the cottage. (Source: Google Street view, June 2015)



Figure 105: View 5 - visual access to Cliff Street can be gained from within the western section of the site. Views to this street are obscured from eastern sections of the site due to the presence of the cottage. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 106: View 6, looking west and north-west towards the residences located in The Terrace.



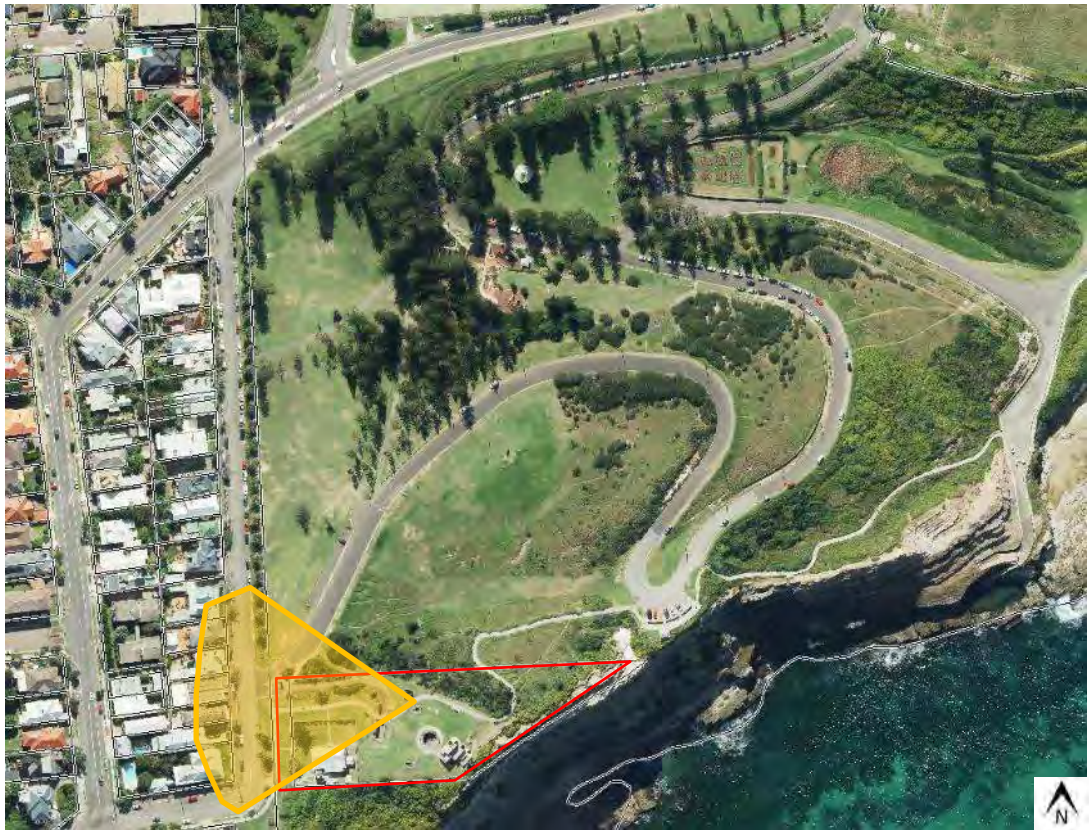


Figure 107: View 6 - view looking towards the residences located within The Terrace and mainly possible from the western and north-western ends of the site, however, some views are possible from within the site. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 108: Views 8 and 9, looking east towards the Tasman Sea from 41 The Terrace (left) and looking north east from the Park Battery, no.1 gun and bunker (right).



Figure 109: Views 8 and 9 - Views to the Tasman Sea from 41 The Terrace and the Park Battery, no.1 gun and bunker are expansive, as indicated in the image above. The view cone indicates views are available to the north, south and east. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)





Figure 110: View 10 - Views looking north west towards the residential development to the rear is limited due to the proximity of the Park Battery, no.1 gun and bunker to the residences. The view cone therefore, while expansive, is limited to the residences directly abutting the boundary fence. These residences obscure others from view. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)



Figure 111: View 11 - While views can be gained to the site at 41 The Terrace from the Park Battery, no.1 gun and bunker, the view is partially obscured from view due to the topography of the site and vegetation present. As such, a full view of 41 The Terrace is not possible and predominately the structures present to the south are visible. (Source: SIX Maps accessed 28 August 2017 via <https://maps.six.nsw.gov.au/>)





Figure 112: View 12, looking south west from the Park Battery, no.1 gun and bunker towards the Strzelecki Lookout and Memorial Walk. Distant views to neighbouring coastal areas including Bar Beach and Susan Gilmore Beach, can be seen in the background.



Figure 113: View 12 - The views afforded from the Park Battery, no.1 gun and bunker towards the Strzelecki Lookout and Memorial Walk are obtained from the south-western side of the structure and partially from the southern side, as indicated in the view cone above.





Figure 114: View 13 - The views that can be gained from the engine room are limited as the structure is located towards the rear of the residential complex. As such, only glimpses of Nesca Parade can be gained.

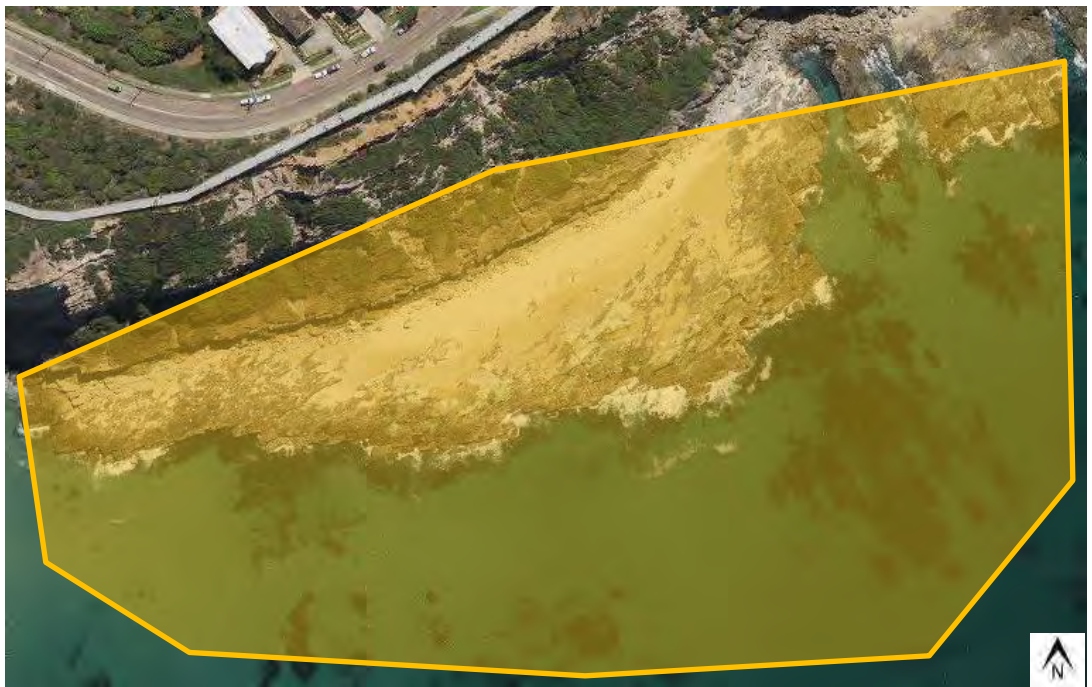


Figure 115: View 14 - From the searchlight bunker expansive views can be gained towards the Tasman Sea, which was one of the key reasons why this location was chosen.



## 4. History

### 4.1 Prior to Human Occupation

The following landscape history of the site has been prepared by landscape specialist Chris Betteridge of Musescape.

#### 4.1.1 Geology

According to the eminent geologist, the late Professor Edgeworth David, the 35km cliff section from Nobbys in the north to just south of Catherine Hill Bay in the south, is probably the finest of its kind in the world.<sup>29</sup> The cliffs in several places are over 60 metres high and expose splendid sections of the coal seams and associated sediments of the Permian Era Newcastle Coal Measures.

The headland at Nobbys, now 29 metres tall, is an erosional remnant of originally more extensive layers of sedimentary rock, mostly made up of light grey and cream coloured layers of consolidated volcanic ash, called the Nobbys Tuff (Figure 116). It had been called Nobbys Chert by Edgeworth David (1907). This geological unit extends from sea level up to almost the top of the cliff, with a thickness of 25 metres. The Nobbys Tuff rests on the Nobbys Coal Seam, whose black layers are visible at very low tides, forming part of the rock platform next to the break wall. Towards the top of the cliff, grey shale and thin coal beds of the Victoria Tunnel Coal Seam overlie the Nobbys Tuff.

The Nobbys Tuff once extended all the way down the Newcastle coast but more than tens of millions of years of weathering by wind, rain, salt air and erosion by ancient rivers and the sea have removed it from many parts of the coast. South of Nobbys, the tuff can be recognised high up in the cliffs of the study area and Merewether. Further south, at Glenrock, the Nobbys Tuff outcrops again just above sea level. Tracing the tuff unit from Nobbys to Glenrock shows that it forms a broad arch-like fold. This structure is called the Shepherds Hill Anticline (Figure 116). From Glenrock, the tuff continues to dip southwards, disappearing below sea level.

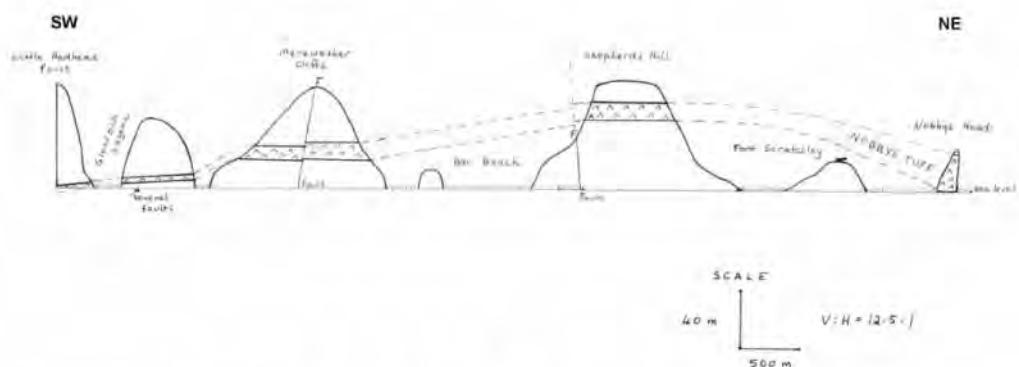


Figure 116: Cross Section of the Shepherds Hill Anticline from Little Redhead Point to Nobbys Head defined by Nobbys Tuff, also showing the location of the fault on Shepherds Hill. (Source: Figure 5, Kerr 2000 Bathers Way Geology report)

Inland, the Nobbys Tuff outcrops from Newcastle to Stockrington. South of the outcrops it can be identified beneath the land surface in coal mines and drill holes in the Lake Macquarie area and beyond, at least as far as Broke. The outcrop of Nobbys Tuff at Nobbys is very important and special to geologists as it is the thickest section of the unit that has been found. At 41 The Terrace, the Nobbys Tuff is underlain by the Nobbys Seam and Dudley Seam of

<sup>29</sup> Nashar 1964, pp48-9

the Newcastle Coal Measures and overlain by the Victoria Tunnel Seam and the Merewether Conglomerate.

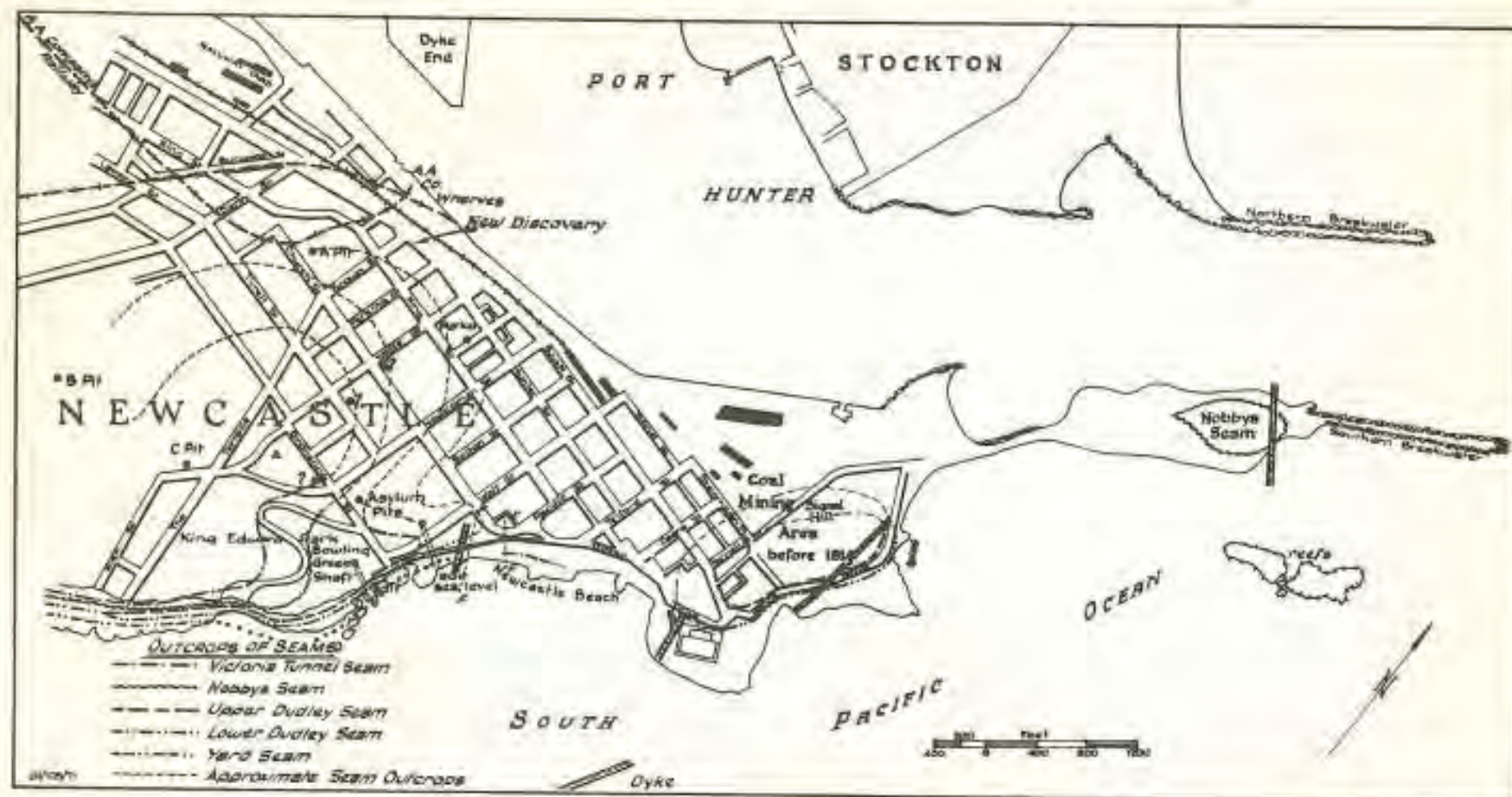
The coal reserves near the mouth of the Hunter River had been first noticed in the late 18th century, and a penal settlement was established at 'Coal River' (later named Hunter River) in the early years of the 19th century, being aborted after six months in 1801, but re-established in 1804. Convict labour was used to exploit the estuary's coal, timber, salt and lime resources. The Australian Agricultural Company, formed in London in 1824, entered the coal industry with the intention of exporting coal to India for use by the steamers of the East India Company. Steamships also began to appear on the coast of NSW from 1831, creating the first significant local commercial demand for coal. The Company secured a grant of 2,000 acres (800 hectares) of coal bearing land near Newcastle, in 1829. At the same time it secured a form of market protection, which amounted to a near-monopoly on the supply of coal across the following decades. The arrival of the Company could be regarded as the most important event in the 19th century history of Newcastle, as it dominated the course of the area's history for much of that century and had profound effects on the future development of Newcastle as a City.

The entry of the Company into coal mining also transformed the coal mining industry in Australia. The Company was initially given control of the small-scale government mines, but almost immediately began constructing its own colliery following more up to date mining practices in Britain. This first mine, known as 'A Pit' opened in 1831, and was the first modern and privately-operated colliery in Australia. The Company subsequently extended its mining activities to the coal-bearing land to the south-west of the study area, using mainly convict labourers and convict miners. The coal-bearing area beneath inner Newcastle was to prove however, geologically unstable, and so the Company looked for more stable fields of operation. A copper smelter also operated at 41 The Terrace. The exact location of the copper smelter at Shepherds Hill is unknown, however, the following map shows the presence of some coal pits in the area (Figure 117).

#### **4.1.2 Vegetation**

Prior to European settlement of the Newcastle area, the coastal headland of the study area and the area now known as King Edward Park would have supported coastal heath and grassland vegetation communities. To the northeast of the site is a small area of the Endangered Ecological Community Themeda Grassland, dominated by the native grass *Themeda australis* (Kangaroo Grass), currently undergoing rehabilitation. Growing close to the site are native shrubs common to coastal heath communities including *Acacia sophorae* (Coastal Wattle), *Lomandra longifolia* (Mat Rush), *Westringia fruticosa* (Coast Rosemary), *Leptospermum laevigatum* (Coastal Tea Tree) and *Banksia integrifolia* (Coastal Banksia) although these only date from 2004 when they were planted to help re-establish the original plant community and to overcome the scourge of *Chrysanthemoides monilifera* (Bitou Bush) which had invaded the area.





**EARLY COALMINES IN NEWCASTLE**

Figure 117: Undated early map showing various coal pits present in the Newcastle area. (Source: Hunter Living Histories website, University of Newcastle, 'The Geology and the Changing Landscape of Newcastle and the Hunter Valley', February 14 2017, accessed 30 July 2018 via <https://hunterlivinghistories.com/2017/02/14/geology-newcastle/>)

## 4.2 History Following Human Occupation

The following history has been prepared by Historian Dr Terry Kass on behalf of CPH in August 2017.

Note: Additional historic images have been provided in Section 12.12- Appendix L - Additional Historic Images.

### 4.2.1 Introduction

This report has been commissioned by CPH and is part of the process of completing a CMP for this property. There have been various reports and publications about the Shepherds Hill Defence Group Military Installations, often with little or no archival research. Additionally, they often lack references. These other studies have occasionally been used in this report. However, this report has relied upon detailed and extensive archival research along with research in other original sources.

The study area was a distinct geographical feature south of the entrance to the Hunter River. In 1801, Lieutenant Colonel Paterson described the soil within the study area as 'a light black mould about a foot and a half deep, after which is the stratum of stone and clay above the coal'.<sup>30</sup> In 1939, the soil on the site of 41 The Terrace was described as sandy loam.<sup>31</sup> The topography of the site was depicted on a number of Crown surveys (Figure 119).

### 4.2.2 Aboriginal Occupation of the Hunter River District

The Newcastle area was originally occupied by the Awabakal language group, which reached across an area extending from Newcastle to Wyong (Figure 118). Like other original inhabitants of the Australian mainland, they were hunters and gatherers. By occupying an area with extensive bodies of water, including bays, ocean beaches with extensive rock platforms, and lakes such as Lake Macquarie, they fall into the general category of 'salt water people'. They harvested shellfish and caught fish as well as waterfowl. Vegetable products were harvested such as fern roots, cabbage tree palms, the fruit of the *Macrozamia* and wild berries. Wherever possible, they caught game, usually small marsupials, such as possums, and occasionally, larger game such as wallabies and kangaroos.

41 The Terrace was originally known as Khanterin. That name was assigned to 41 The Terrace on 17 June 2016 by the Geographical Names Board under its policy of dual names for geographical features when clear evidence is found of the Aboriginal name for that feature.<sup>32</sup> In April 1916, C A Sussmilch, Principal of the Newcastle Technological College was reported to have found an Aboriginal tool making site on 41 The Terrace, with shaped and partially worked flints.<sup>33</sup> No information was provided about the precise location of this site.

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<sup>30</sup> HRA, Series I, Volume 3, p 175

<sup>31</sup> NAA, SP155/1, DEF22173G

<sup>32</sup> NSWGG, 17 June 2016, p 1407

<sup>33</sup> Newcastle Morning Herald, 10 April 1916, p 4





Figure 118: Jemmy of the 'Newcastle Tribe', probably a member of the Awabakal language group. (Source: Collection of portraits, predominantly of Aborigines of New South Wales and Tasmania, c. 1817-1849, ML PXA 615, No 29)

Like many other Aboriginal groups, their numbers declined rapidly when European settlers occupied their lands. Not only did they lose access to the most productive food sources, but new diseases to which they had a low immunity decimated their numbers. The old were particularly affected, causing significant cultural damage by severing younger members of the community from sources of traditional knowledge and wisdom. Young children were also particularly susceptible to infection. Though not all of them died, their physical constitutions were weakened. Instead of a balance of ages and sexes, the Newcastle Awabakal community became a society with a much higher proportion of mature men and women, with reduced numbers of young and old than had traditionally been the case.

Reverend Lancelot Threlkeld was a Congregational minister and missionary that settled in the Newcastle and Lake Macquarie area in the 1830s. In order to translate the Bible, he collected aboriginal words from the Awabakal people of the district. His collection, and publications ensured that the language was recorded.<sup>34</sup> His collections have underpinned the retention and revival of the Awabakal language.

#### 4.2.3 Settling Newcastle

Lieutenant Shortland charted the Hunter River in September 1797, naming it after Governor John Hunter. Lieutenant-Governor William Paterson visited the Hunter River in June 1801 and recommended the establishment of a small settlement to produce a lime and mine coal. A small convict settlement was established in 1801 but was soon abandoned. In March 1804, a new convict settlement was established to incarcerate convicts involved with the Castle Hill rebellion. The convicts mined coal, produced lime and cut cedar upriver from the settlement.

#### 4.2.4 The Hill

On 15 June 1801, Lieutenant-Colonel Paterson when he was examining the potential of the Hunter for settlement had written in his journal that south of Colliers Point where miners were digging coal:

*From this to the southward for some miles the hills are covered with excellent verdure without trees, except in the valleys, and they are chiefly Banksia new, or what is commonly called the white honeysuckle, but grows much larger than that found in the neighbourhood of Sydney. Those hills are so much alike to what I have seen sheep feeding on in England, that I have named them Sheep Pasture Hill. The soil is a light black mould about a foot and a half deep, after which is the stratum of stone and clay above the coal....*

The journal was sent to Governor King who forwarded it to England.<sup>35</sup>

The next reference to the hill was on 29 January 1839, when an article appeared in the Sydney Monitor, which was also reproduced in the Sydney Gazette. It reported that an assigned convict of the Australian Agricultural Company had assaulted three females on 'Shepherds Hill' (41 The Terrace). A coy reference in the report also indicates that one of the females was also sexually assaulted.<sup>36</sup> As a large hill near the settlement 'Shepherds Hill' (41 The Terrace) with extensive views of the ocean and harbour entrance was a popular recreational destination.

It was also significant for maritime navigation. Construction of an obelisk as a landmark for shipping ensured that the hill was shown on many early navigation charts. The 1851 Admiralty chart showed 41 The Terrace, the obelisk plus some detail of its topography. It also included an etched view of the hill from seaward (Figure 119).<sup>37</sup>

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<sup>34</sup> N Gunson, 'Lancelot Edward Threlkeld, (1788-1859)', Australian Dictionary of Biography, Volume 2, pp 528-30

<sup>35</sup> HRA, Series I, Volume 3, p 175

<sup>36</sup> Sydney Monitor, 28 Jan 1839, p 2; Sydney Gazette, 29 Jan 1839, p 2

<sup>37</sup> Great Britain, Hydrographic Dept, Australia, East Coast, Newcastle Harbour, surveyed by Captain J L Stokes, R N, 1851, NLA, MAP British Admiralty Special Map Col/38





Figure 119: 'Shepherds Hill' (41 The Terrace) was left of the Obelisk. (Source: Great Britain, Hydrographic Dept, Australia, East Coast, Newcastle Harbour, surveyed by Captain J L Stokes, R N, 1851, NLA, MAP British Admiralty Special Map Col/38)

To the north of 41 The Terrace, sand dunes behind Newcastle beach were cleared of vegetation. No longer anchored by a protective mat of shrubs and grass, the dunes became mobile blowing westwards. By the late 1830s, streets and houses were being buried by shifting sand. Schemes to plant vegetation to stabilise the dunes were instigated. A sketch of 1853 showed the area to be planted along the seashore (Figure 120).<sup>38</sup>



Figure 120: This sketch dated 1853 showed the area north of 'Shepherds Hill' that would be grassed to stabilise the sand dunes. (Source: Sketch Book Volume 6 f 31, SANSW)

38 Sketch Book Volume 6 f 31; Sketch Book Volume 6 f 68, SANSW

The Town Map of July 1860 showed the topography of the Recreation Reserve and 'Shepherds Hill' at its southern extremity (Figure 121).<sup>39</sup>

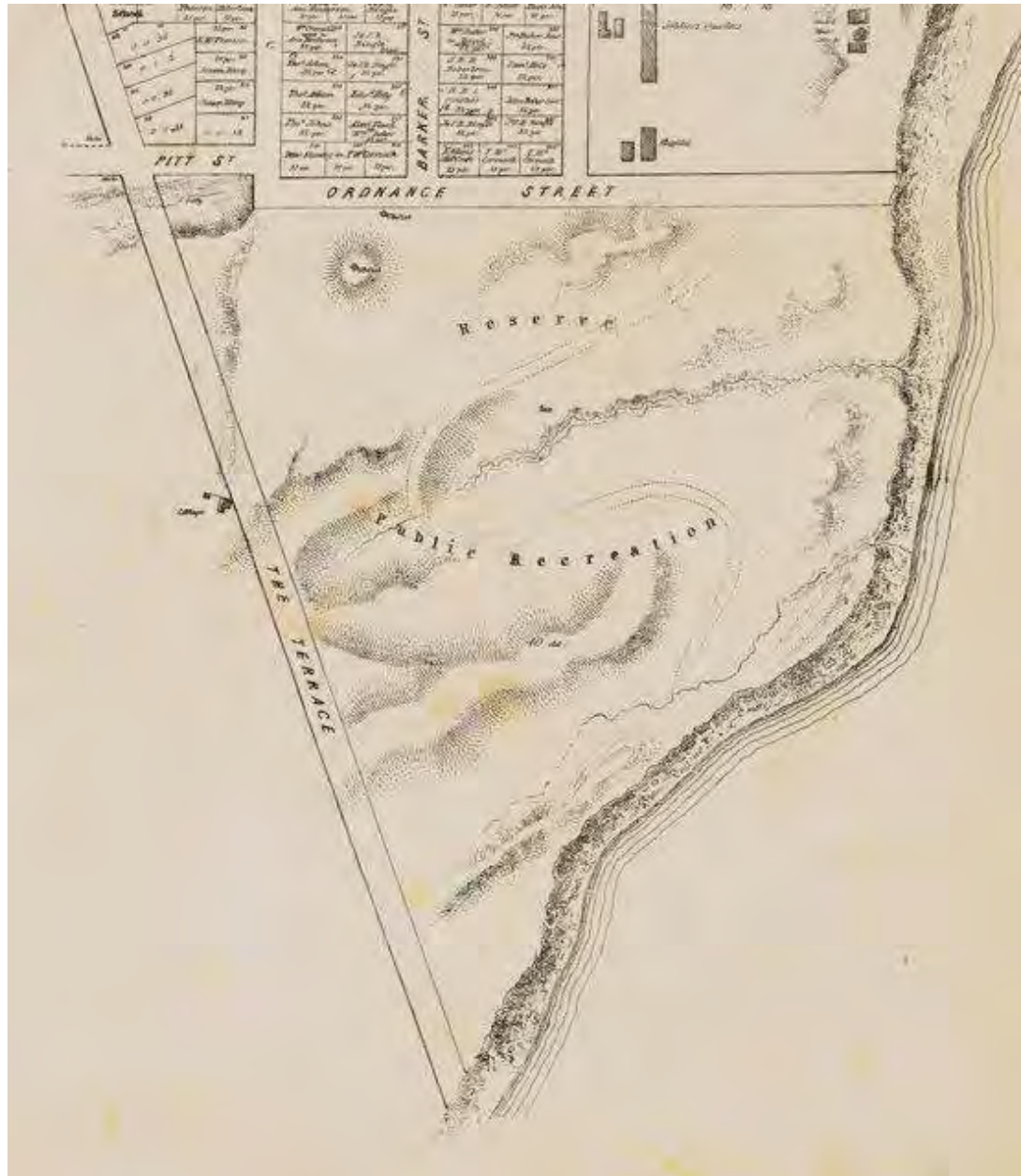


Figure 121: The July 1860 Town Map showed the topography of the Reserve. (Source: SA Map 10188)

#### 4.2.5 Recreation Reserve

The necessity of preserving the area around 'Shepherds Hill' for recreational purposes was soon apparent. A plan compiled by LS D M Maitland in the 1850s (date obscured - 8 Oct 185-) showed various Allotments at Newcastle that were being prepared for sale. It was also the official plan for the 40 acre Reserve for Public Recreation that became King Edward Park (Figure 122).<sup>40</sup>

39 SA Map 10188  
40 N.98.844, Crown Plan



Figure 122: The official survey plan of the Recreation Reserve, with the boundaries of the Battery at 41 The Terrace later added to the plan. (Source: N.98.844, Crown Plan)

A sketch by LS Philip Francis Adams dated 10 November 1856 also showed the proposed reserve.<sup>41</sup> In order to protect the reserve from selection under the 1861 Crown Lands Alienation Act, the reserve was gazetted on 16 July 1863 as part of a wholesale proclamation of reserves. That was the official proclamation for the establishment of the reserve. It was described as an area of 40 acres at Newcastle, 'On the sea coast, and bounded by the Terrace and Ordnance-street'. It was set aside as a Reserve for Public Recreation.<sup>42</sup> Further

<sup>41</sup> Sketchbook Volume 8 f 49, SANSW

<sup>42</sup> NSWGG, 16 July 1863, p 1545



information about the history of King Edward Park has been included in Appendix O - Origins of King Edward Park, Hunter Living Histories Website, 31 August 2012

'Shepherds Hill' (41 The Terrace) remained a noted recreational destination. In 1861, when Governor Sir John Young visited Newcastle, he particularly enjoyed the view from that hill.<sup>43</sup> The Wesleyan Methodists of Newcastle held annual picnics on the hill in December every day, entertained not only by a luncheon but also by temperance lecturers.<sup>44</sup> The scheme to stabilise the sandhills for £1000 in 1868 was also coupled with pleas to the Minister of Works, James Byrnes, for better access roads to the recreation reserve at the Horseshoe and 'Shepherds Hill' (41 The Terrace).<sup>45</sup>

By the 1860s, 'Shepherds Hill' (41 The Terrace) was regularly used by the colonial volunteers for shooting matches. In 1862, the range was described as the 'private butts' of the Newcastle Volunteer Rifles. The Naval Brigade also used the butts. Butts, which stand behind the targets to absorb any bullets fired at the targets, had been established on the hill.<sup>46</sup> There is no precise information about the position of the butts. In keeping with the normal practice of rifle ranges, the butts would have been positioned where any bullets that were too high to have been caught by the butts would have fallen in a safety zone devoid of people. Thus, the butts were probably positioned with the sea behind them as a safety zone to allow stray bullets to fall with minimal danger. The Anzac Rifle Range at Long Bay, for example, has the butts facing the sea, and the safety zone stretched out across the water. A later plan of 1889 at Shepherds Hill by LS Alfred Ebsworth showed a 'Rifle Range' west of the later site of the 8 inch battery. This was apparently the location of the rifle butts (Figure 123).<sup>47</sup>

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<sup>43</sup> Empire, 27 June 1861, p 5

<sup>44</sup> See, for example, Maitland Mercury, 24 Dec 1868, p 3

<sup>45</sup> Newcastle Chronicle, 13 June 1868, p 3

<sup>46</sup> Newcastle Chronicle, 4 Jan 1862, p 3; Maitland Mercury, 28 Dec 1867, p 2; SMH, 3 Jan 1862, p 10; 30 Dec 1867, p 5

<sup>47</sup> Ms.186.3070. Crown Plan



A notice was issued to Mariners on 10 February 1866 that as part of the improvements to the leading lights and beacons at Newcastle, that the 'lower or north-eastern of the two obelisks at present used for the leading mark in, situated on Shepherds Hill, will be removed'.<sup>48</sup> 'Shepherds Hill' (41 The Terrace) continued to feature on navigation charts, which included an image of the shore from sea (Figure 124).<sup>49</sup>



Figure 124: The 1869 maritime navigation chart showed Shepherds Hill left of the obelisk. (Source: D T Allan, Chart of Newcastle Harbour and Port Waratah, 1861 corrected to 1869, NLA, MAP F 52)

The 1881 Harbour map also showed 'Shepherds Hill' (41 The Terrace) (Figure 125).<sup>50</sup>

<sup>48</sup> NSWGG, 13 Feb 1866, p 465

<sup>49</sup> D T Allan, Chart of Newcastle Harbour and Port Waratah, 1861 corrected to 1869, NLA, MAP F 52

<sup>50</sup> Great Britain, Hydrographic Dept, Australia, East Coast, Newcastle Harbour, from surveys by F W Sidney and Officers of the Harbours and Rivers Department, 1881, NLA, MAP RM 2989





Figure 125: The 1881 maritime chart provided a clear image of the topography of the future Battery site at 41 The Terrace. (Source: Great Britain, Hydrographic Dept, Australia, East Coast, Newcastle Harbour, from surveys by F W Sidney and Officers of the Harbours and Rivers Department, 1881, NLA, MAP RM 2989)

#### 4.2.6 Defending Newcastle

As a significant port serving a vast hinterland extending up the Hunter Valley and then stretching north inland as far as the Queensland border, defence of Newcastle was an early concern. During the 1820s, Lieutenant E C Close recommended establishing defences for Newcastle. Seven guns were positioned on Signal Hill now known as Fort Scratchley. The defence of the colony of New South Wales became an increasing matter for concern. As a valuable colony producing wool and gold, let alone numerous other products, New South Wales would be a significant prize for an aggressor. Concern initially focused on Sydney but quickly extended to Newcastle, producer of most of the coal consumed in New South Wales and exported.

Sir William Francis Drummond Jervois, an officer of the British Royal Engineers was sent to New South Wales to report upon colonial defences. Along with Lieutenant-Colonel Peter Scratchley he had completed his inspection by May 1877. He reported on 4 June 1877. He recommended special protection for Newcastle notably the construction of a fort on Signal Hill, armed with three 9 inch muzzle loader guns and four muzzle loading 80 pound guns.<sup>51</sup> His deputy, Lieutenant-Colonel (later Colonel) Peter Scratchley continued to advise on defence.

Scratchley gave evidence to the 1881 Royal Commission on the military forces of New South Wales. On 30 March 1881, he provided a succinct statement of his strategic vision and how to counter attacks on New South Wales. In his opinion, the Royal Navy would provide the bulk of defence against aggressors. On land, a volunteer colonial defence force would be able to repel attackers. Key ports would be defended by shore batteries, torpedoes and mines. He also thought that the existing defences of Newcastle consisting of three 9 inch muzzle loading guns and four muzzle loading 80 pound guns along with torpedoes that had been established in line with Jervois' recommendations were sufficient to defend Newcastle against a 'moderate attack'.<sup>52</sup>

Yet, in February 1885, Admiral Tryon, Commander of the Australian Naval Squadron recommended that a second fort be established to guard the approaches to Newcastle Harbour 'somewhere in the neighbourhood of Shepherds Hill' be established to bolster the defences of Fort Scratchley. Hence, in March 1887, Major General John Richardson, commander of the NSW military forces reported that two 8 inch breech loading guns costing £5,300 each with their fittings had arrived along with most of their hydro-pneumatic carriages. They had been sent to Newcastle.<sup>53</sup> One of those guns would be positioned on 'Shepherds Hill' (41 The Terrace).

#### **4.2.7 Shepherds Hill 8-inch Battery**

Late in 1887, Major General H Schaw, Royal Artillery, recommended that as well as siting one of the guns at Fort Scratchley, the other should be sited at 'Shepherds Hill' (41 The Terrace).<sup>54</sup> On 20 May 1889, Staff Surveyor Francis J Gregson completed the initial survey of 2 acres 3 roods 23 perches as a defence reserve at Shepherds Hill, Newcastle (Figure 126). The survey showed details of the topography of the site. The survey was later cancelled when a smaller area was taken for the Battery site.<sup>55</sup>

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<sup>51</sup> 'Preliminary Report by His Excellency Sir William Jervois on the Defence of the Colony', *Votes and Proceedings of the Legislative Assembly, NSW*, 1876-7, Volume III, pp 102-3

<sup>52</sup> 'Royal Commission ... to inquire into the working ... of the military forces of New South Wales', *Votes and Proceedings of the Legislative Assembly, NSW*, 1881, Volume IV, p 712-4, 718

<sup>53</sup> Lt-Col R S Mort, *The Story of Shepherd's Hill*, Newcastle City Council, Newcastle, 1988

<sup>54</sup> Lt-Col R S Mort, *The Story of Shepherd's Hill*, Newcastle City Council, Newcastle, 1988

<sup>55</sup> Ms.163.3070, Crown Plan

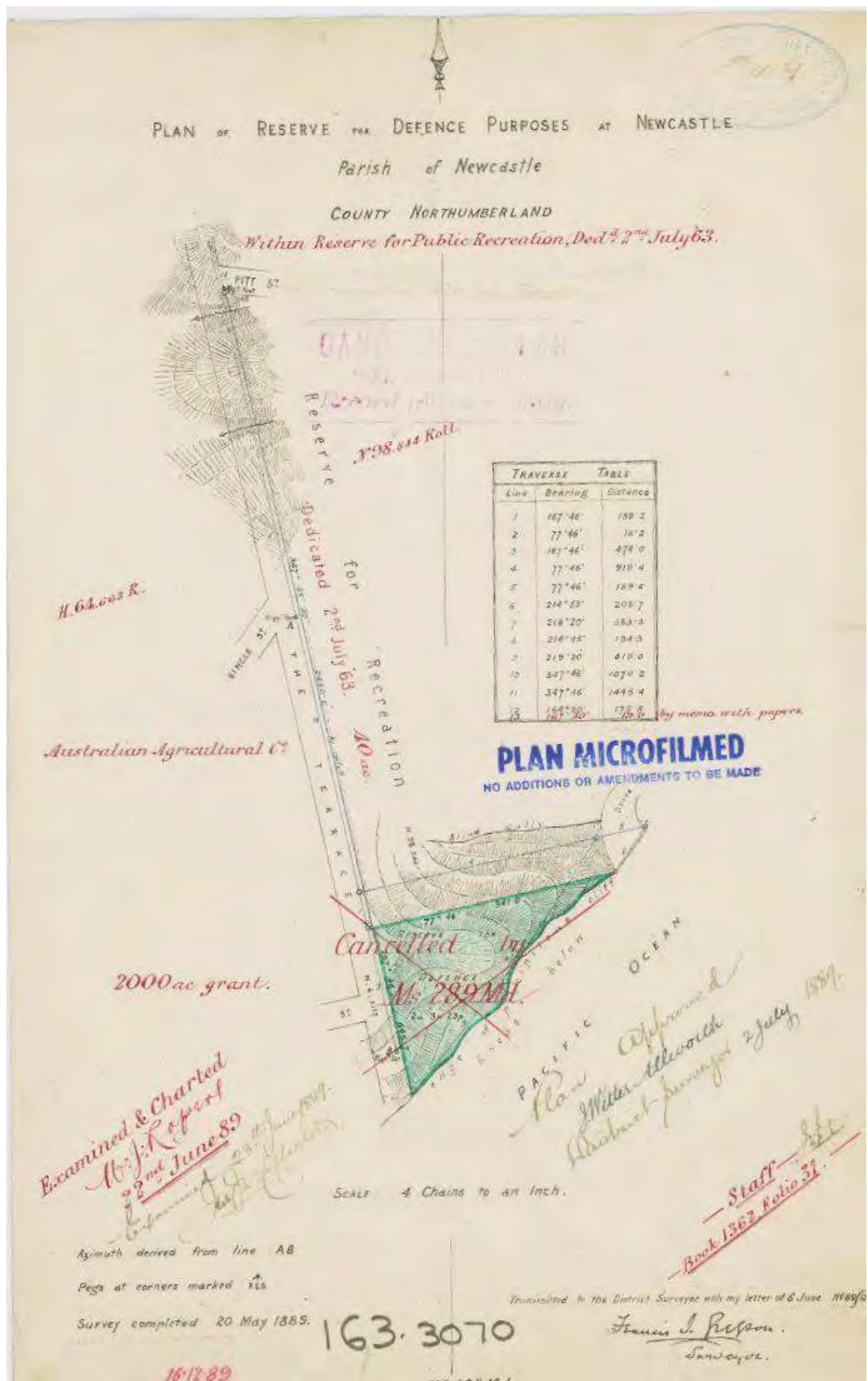


Figure 126: Surveyor Gregson's survey of the site originally proposed for the Battery provided clear topographical detail. (Source: Ms.163.3070, Crown Plan)



These defence preparations occurred in the midst of a major scandal about the construction of defence works centred upon the work carried out by contractor John McLeod on Bare Island fort in Botany Bay. The report was highly critical of the supervision by the Colonial Architect, James Barnet. It was a significant factor in the forced retirement of Barnet in ignominious circumstances.<sup>56</sup> It also meant that a Military Works Branch of the Department of Public Works was created in 1890 headed by Lieutenant-Colonel Felician Rola de Wolski, of the Royal Engineers who had kept up a barrage of demands and criticism of the handling of defence works by the Department of Public Works. In 1891, Military Works Branch of Department of Public Works was transferred to the Colonial Secretary's Department.<sup>57</sup>

Thus on 11 March 1890, when tenders were called to erect a 'Battery at Shepherds Hill, Newcastle', due 19 March 1890, the Specification was issued by the Military Works Office, 46 Phillip Street, Sydney. Tenders had to be sent to that office.<sup>58</sup> The extant copy of the tender document held at State Archives consists mainly of a standard printed contract for defence works. For 'Shepherds Hill', it stated the government would supply 'the races, clip ring pivot & all holding down bolts & anchor plates' for the armament. There was no plan with the Specification. However, a Schedule of prices was included, setting out quantities of materials required plus their unit price. The contract was due for completion by 30 September 1890 with a penalty of £20 per week for lateness. The inclusion of timber, sashes and doors showed that the cottage appears to have been included in the work.

The Specification included hardwood timber studs, hardwood batten flooring, Baltic or Kauri pine flooring, pine skirting, plus cedar sash windows, and hardwood ledged doors. Whilst some of this timber would have been intended for the fortification works, some of it was certainly for the cottage. Baltic or Kauri pine flooring, pine skirting and cedar sash windows is hardly in accordance with constructing a concrete fortification, even allowing for some shelving and doors. The Specification only allowed for 5 sheets of corrugated galvanised iron, which appear to be too few to roof a cottage. Item 94 in the Specification allowed for the construction of a works office, with two rooms 12 feet by 12 feet and 12 feet by 8 feet, and 8 feet to the eaves. These dimensions suggest that the works office was not incorporated into the cottage. It is highly likely that the cottage was erected at the same time as the Battery. A search of the New South Wales Government Gazette found no separate tenders to erect a cottage at Shepherds Hill. The specification also noted the construction of a toilet block near the residence. The Specification is included as an Appendix to this report (Appendix L).

The cost of the construction works was estimated to be £3,100. The lowest tender of the four tenders received was from Phillips and Howie for £3,602/11/7. However, there was an error of £744 in their calculations. After taking this error into account, the lowest tender was from James Russell and Co for £3,689/9/3. On 25 March 1890, Colonel F R de Wolski, Director of Military Works, recommended them as the successful tenderers. The Minister approved it the following day.<sup>59</sup> Acceptance of the tender from James Russell and Co for the construction of a battery at 'Shepherds Hill' (41 The Terrace) was officially gazetted on 9 April 1890.<sup>60</sup> Though there was no copy of the tender plan signed by contractor James Russell on 15 April 1890 with the Specification, it was included in the report by Gardner Browne (Figure 127).<sup>61</sup>

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<sup>56</sup> 'Report of the Royal Commission on Defence Works appointed July 14, 1890', *Votes and Proceedings of the Legislative Assembly, NSW*, 1891-2, Volume VII

<sup>57</sup> NSW – Public Works Department, *Annual Report*, 1891, p 1

<sup>58</sup> NSWGG, 11 March 1890, p 2067

<sup>59</sup> Shepherds Hill Battery, 1890, Public Works Department, Special Bundles, SANSW 2/895

<sup>60</sup> NSWGG, 9 April 1890, p 2261

<sup>61</sup> Gardner Browne, Planning Consultant, Shepherds Hill Cottage and Surrounds – Conservation Study, For Newcastle City Council, 1984, p 9 & Figure 1

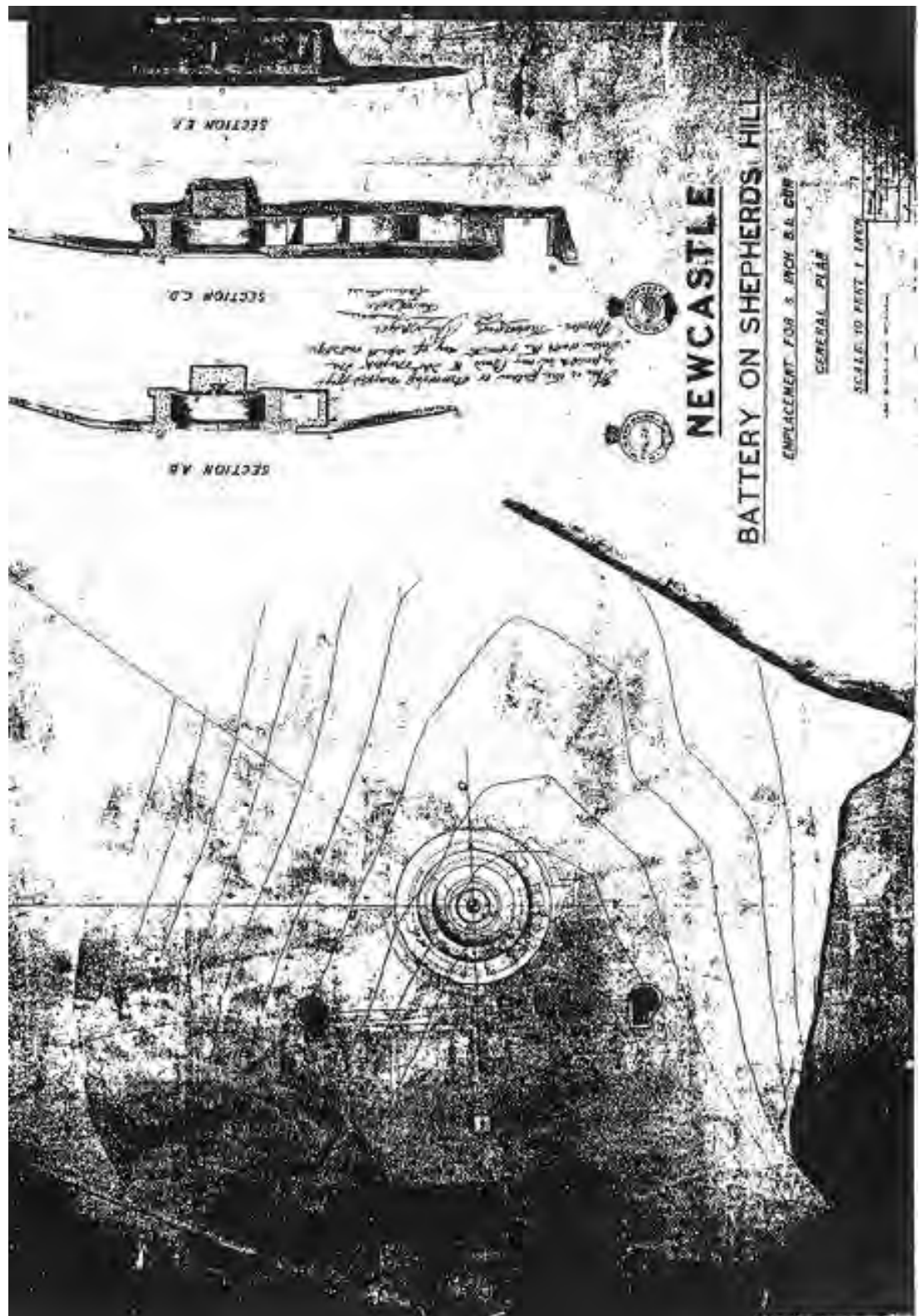


Figure 127: The Contract Plan for construction of the Battery. (Source: Gardner Browne, Planning Consultant, Shepherds Hill Cottage and Surrounds – Conservation Study, For Newcastle City Council, 1984, Figure 1)

The gun selected for the battery at 41 The Terrace was a breech loading 8 inch gun manufactured by Armstrong in Britain, coupled with a hydro-pneumatic carriage designed to

raise or lower the gun. This allowed it to appear and fire and then be lowered again if required to foil counter-battery bombardment by the enemy (Figure 128 and Figure 129).

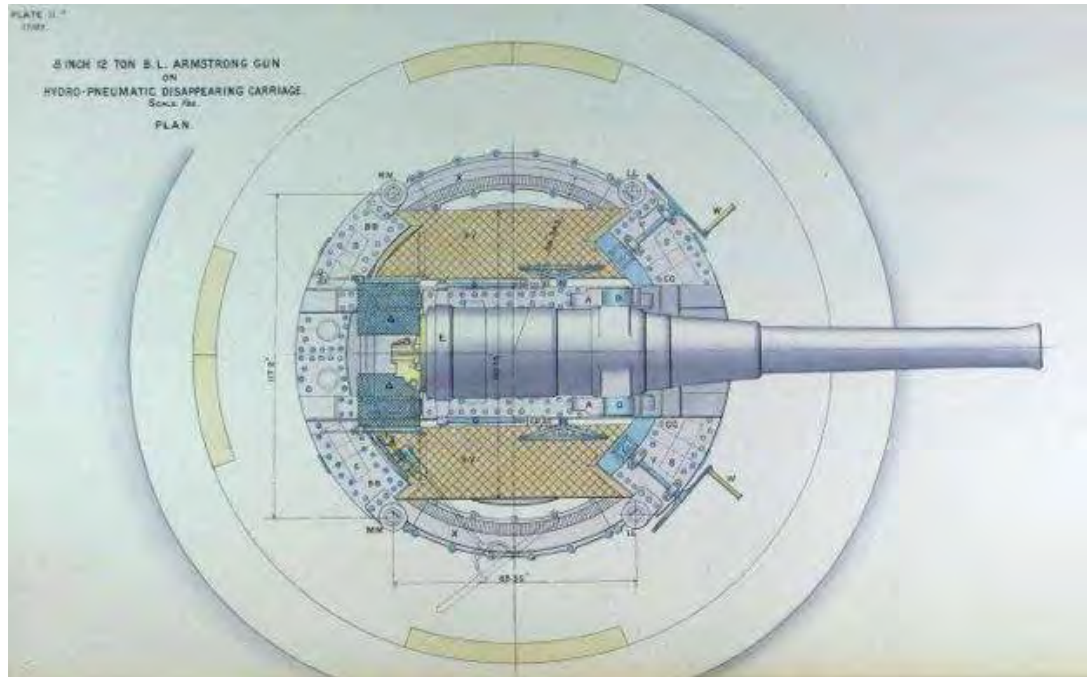


Figure 128: The 8 inch Armstrong breech loading rifled gun. (Source: NAA, A1194, 17.10/5963)

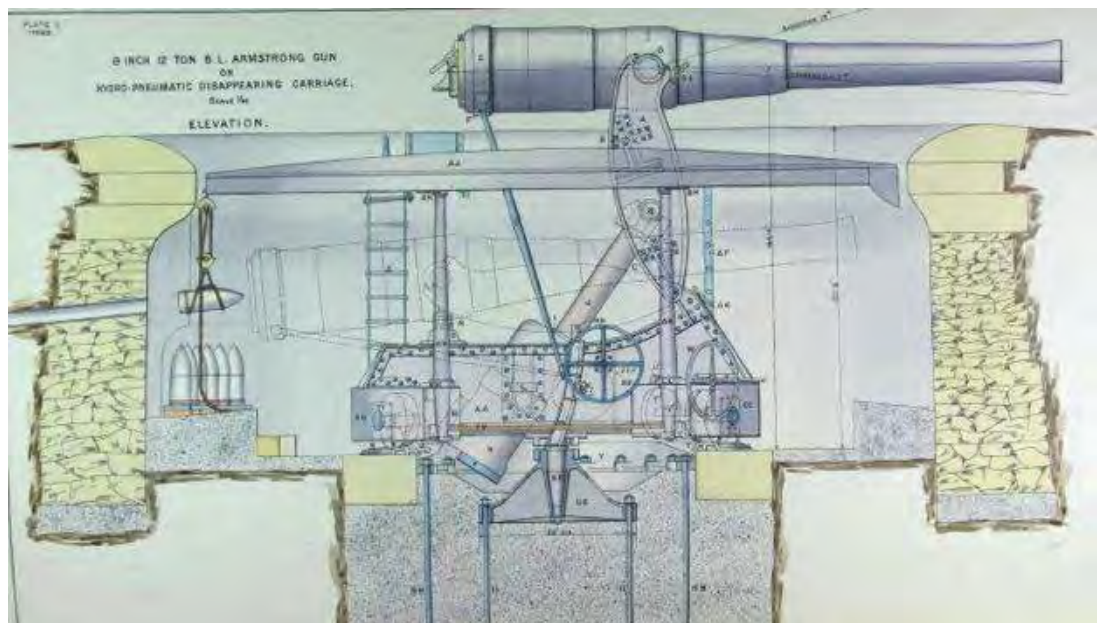


Figure 129: The hydro-pneumatic mounting for the 8 inch Armstrong breech loading rifled gun. (Source: NAA, A1194, 17.10/5963)

On 31 July 1890, Staff Surveyor Francis J Gregson completed a new survey of the smaller site measuring 1 acre 2 roods 23 perches, part of the Recreation Reserve as the 'Site for



Coast Battery'.<sup>62</sup> A later survey plan (N.8463.844) cancelled the original survey but no copy is available from LPI, NSW (Figure 130).

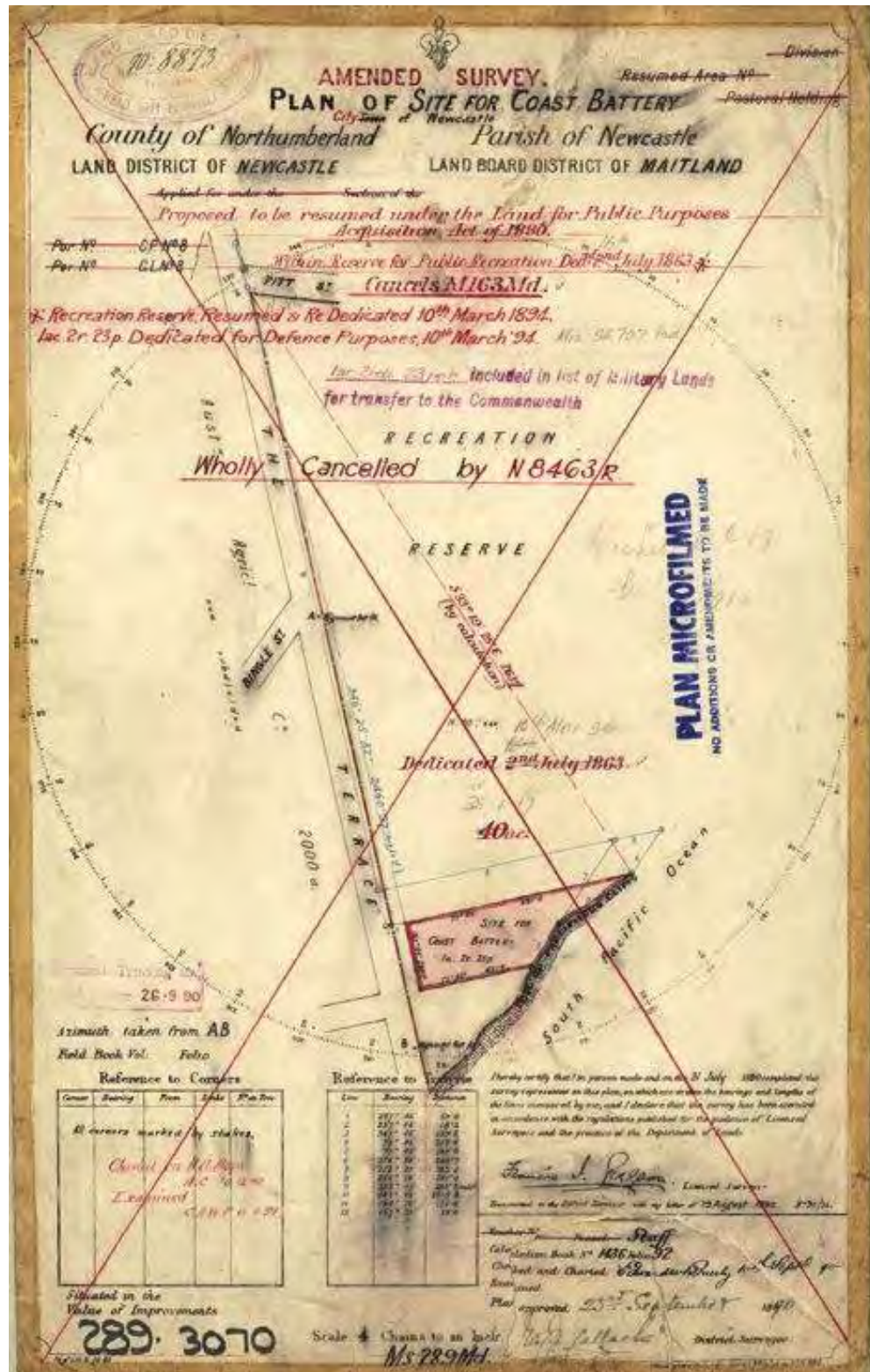


Figure 130: The revised survey by Staff Surveyor Francis J Gregson showing 1 acre 2 roods 23 perches acquired as the Battery site. (Source: Ms.289.3070, Crown Plan)

The outhouse had been constructed from bricks impressed with the name of the manufacturer 'Gulliver'. John Gullier operated his brickworks from 1868 to about 1895. The 1890s depression appears to have caused the works to close.<sup>63</sup> John Turner noted how Gulliver's workforce dropped from 30 men to zero in 1895.<sup>64</sup> Gemmell provided an image of a Gulliver brick with the name stamp.<sup>65</sup>

The brick paving within the site was also part of the original construction of the battery and cottage in 1890-1891. Tenders were called for in August 1891 to lay brick paving in a herringbone pattern enclosed with a hardwood kerb 6 inches by 2 inches (Figure 131).<sup>66</sup> The successful tenderer was A Frewin of Throsby Street, Wickham (Figure 132).<sup>67</sup> The works were completed soon afterwards. The bricks were manufactured by Bowtell and came from the works of Joseph Bowtell in Morgan Street, Merewether. Bowtell commenced manufacturing bricks and other clay products on this site at what was then known as Burwood. The works continued to operate from the 1860s until about 1914.<sup>68</sup> Bowtell was an alderman and sometime Mayor of the Municipality of Merewether.<sup>69</sup>

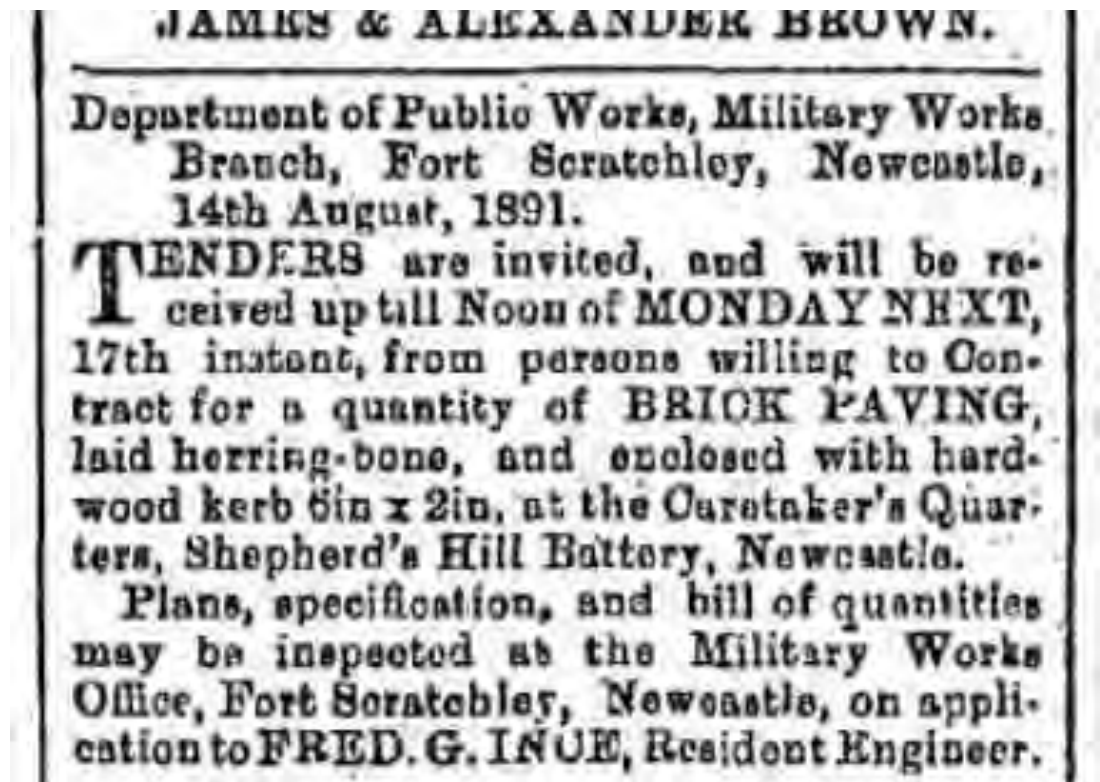


Figure 131: Tenders called for laying the brick pavers at the site. (Source: Newcastle Morning Herald, 14 August 1891, p.8)

<sup>63</sup> W Gemmell, *And So We Graft*, p 76

<sup>64</sup> J W Turner, *Manufacturing in Newcastle, 1801-1900*, Newcastle Public Library, Newcastle, 1980, p 66

<sup>65</sup> W Gemmell, *And So We Graft*, p 46

<sup>66</sup> Newcastle Morning Herald, 14 August 1891, p.8

<sup>67</sup> Newcastle Morning Herald, 19 August 1891, p.8

<sup>68</sup> W Gemmell, *And So We Graft from Six to Six: The Brickmakers of New South Wales*, Angus and Robertson, Sydney, 1986, pp 9-10, 57, 76

<sup>69</sup> Newcastle Morning Herald, 29 Jan 1892, p 8

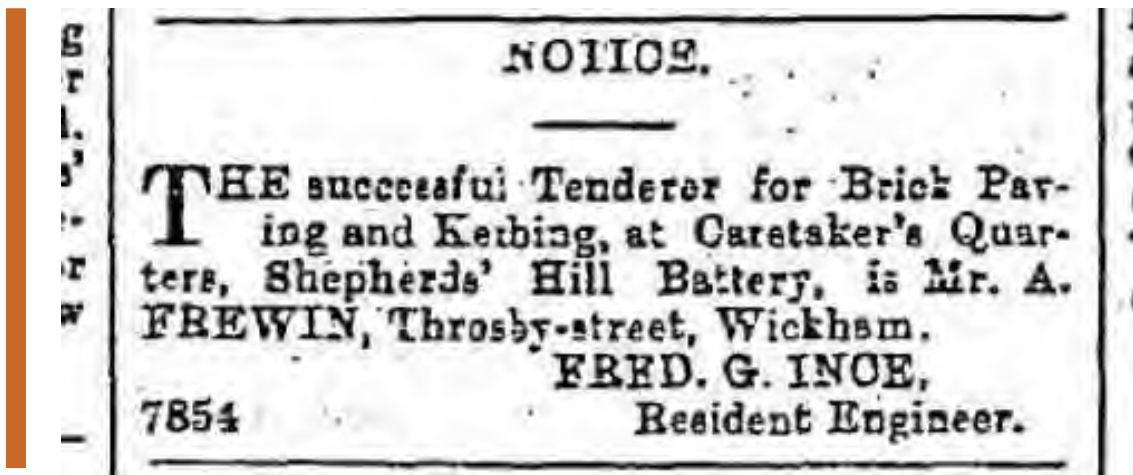


Figure 132: Newspaper clipping announcing the successful tenderer for laying brick pavers as Mr A Frewin of Throsby Street, Wickham. (Source: Newcastle Morning Herald, 19 August 1891, p.8)

On 16 January 1891, as part of the Royal Commission into Defence Works, the concrete work completed at Fort Scratchley by Russell and Company was inspected by cutting into it. Russell and Company was also the contractor completing the work at 'Shepherds Hill' (41 The Terrace). The investigation of the Fort Scratchley concrete poured by them, concluded that, though the work was careless including the insertion of old bricks instead of blue stone into the concrete mix, it was generally satisfactory. Inspection showed no settlement or cracks in the concrete.<sup>70</sup>

It was not until 10 March 1894, that an area of 1 acre 2 roods 23 perches was officially resumed from the Recreation area and gazetted for defence purposes.<sup>71</sup> Colonel F R de Wolski, Director of Military Works inspected the guns in 1891.<sup>72</sup> The gun at 41 The Terrace was fired for the first time on 12 May 1894 during a training exercise under the command of Lieutenant W Lyne.<sup>73</sup> The 1896 Detail Survey Map of Newcastle showed no details of buildings on site, apparently since it was a defence installation.<sup>74</sup>

The master gunner would normally have occupied the cottage on the battery site. Warrant Officer James Woollett has been identified in a publication as living in the cottage at 41 The Terrace until the early years of World War I.<sup>75</sup> Neither, the 1903 Electoral Roll or Supplementary Electoral Roll listed him. However, it did list Laura Wollett, 'Fort Shephard's Hill'.<sup>76</sup> The 1913 Electoral Roll listed James Woollett, soldier, at 58 Wolfe Street, Newcastle also with Laura Woollett.<sup>77</sup> However, James Woollett has been given a substantial promotion in published sources. In 1902, James Woollett was a Gunner, an artillery rank equivalent to a private.<sup>78</sup> By 1906, he had been promoted to Bombardier, equivalent to a corporal, which still makes him three ranks below a Warrant Officer.<sup>79</sup>

On 26 October 1903, the New South Wales Government Committee valuing assets that were being transferred to the Commonwealth estimated the value of the land of 'Shepherds Hill'

<sup>70</sup> 'Report of the Royal Commission on Defence Works appointed July 14, 1890', *Votes and Proceedings of the Legislative Assembly, NSW*, 1891-2, Volume VII, Report pp 41-2

<sup>71</sup> NSWGG, 10 March 1894, p 1637

<sup>72</sup> Lt-Col R S Mort, *The Story of Shepherd's Hill*, Newcastle City Council, Newcastle, 1988

<sup>73</sup> Lt-Col R S Mort, *The Story of Shepherd's Hill*, Newcastle City Council, Newcastle, 1988

<sup>74</sup> Lands, Detail Survey of Newcastle, Sheet 17, 1896, SA Map 32855

<sup>75</sup> Lt-Col R S Mort, *The Story of Shepherd's Hill*, Newcastle City Council, Newcastle, 1988

<sup>76</sup> 1903 Supplementary Electoral Roll, Newcastle (City Division), No 3113

<sup>77</sup> 1913 Electoral Roll, Newcastle (King Street Polling Place), Nos 468-469

<sup>78</sup> *Commonwealth Government Gazette*, 25 July 1902, p 370

<sup>79</sup> *Commonwealth Government Gazette*, 16 June 1906, p 800



(41 The Terrace) fortifications as £1,750. 'Shepherds Hill' was listed as Property 321. The Plan of the site only showed the site boundaries.<sup>80</sup>

In 1908, a more detailed valuation of assets transferred from NSW to the Commonwealth described the defence property at Shepherds Hill as:

*SHEPPARD'S [sic] HILL FORT*

*MILITARY LANDS COMPRISING -*

*1 acre 2 roods 23 perches, Parish of Newcastle, County of Cumberland, gazetted 10th March 1894*

*[£]1,750*

*One gunpit for H. P. gun with shell recesses, covered passages round pit and to magazine and shell room, general store, lamp room, tube and fuze recesses and two D.R.F. stations*

*Quarters – Weatherboard, lined and corrugated iron roof, with verandah, for Non-Commissioned Officers and men, comprising latrines, three rooms, two kitchens and pantries: latrine, coal shed outside, brick paved yard, corrugated iron and picket fence, three fire-hose service; water laid on*

*Fort and quarters enclosed with barbed wire fence with gates*

*[£]5,250*

*Total Sheppard's Hill Fort 5,250 [+] 1,750 [£]7,500.<sup>81</sup>*

Previously, on 15 May 1906, there was significant subsidence of land at 41 The Terrace due to the collapse of part of the Australian Agricultural Company's Sea Pit mine workings underneath. Considerable damage was caused to houses in the district. Cracks opened up in Terrace Street reaching into the military fort, cracking the masonry and doing 'considerable injury' to the gun mountings. The Reservoir on Obelisk Hill was cracked losing considerable quantities of water.<sup>82</sup> It was also reported that 'Extensive damage was done to Shepherd's Hill fortifications, a crack in the concrete foundations throwing the big gun out of position by several inches.'<sup>83</sup> It is unclear when the gun ceased to be operational, but it is doubtful if it could have been fired after May 1906.

Field Marshall Lord Kitchener visited Newcastle in January 1910 to inspect the forts and witness practice firings by the garrison artillery.<sup>84</sup> He inspected the fort at 41 The Terrace, 'and had a look at the dismantled big gun, which it is now impossible to work away to the creep. Lord Kitchener, of Khartoum, had a good look round but said nothing. What he thought would probably make infinitely more interesting reading that what he said either at the broken up undermine [sic] fort on Shepherds Hill.'<sup>85</sup>

Some months later, on 18 June 1910, an article in the Sydney Morning Herald was highly critical of the backward state of the coastal defences of New South Wales, particularly in view of significant German advances. Germany had successfully developed stronger armour

<sup>80</sup> NRS 1138, Chief Secretary, Report of the Committee into State Properties transferred to the Commonwealth, 1903, SANSW 6/5544A, pp 12, 70; 6/5544B, No 321

<sup>81</sup> NRS 14226, Treasury, Valuation of Properties transferred from the State to the Commonwealth, 1908, SANSW 7/2265, p 23

<sup>82</sup> Daily Telegraph, 16 May 1906, p 9; See also Newcastle Morning Herald, 26 May 1906, p 5

<sup>83</sup> Australian Town and Country Journal, 23 May 1906, p 54

<sup>84</sup> The Star, 4 Jan 1910, p 6; Clarence River Examiner, 6 Jan 1910, p 5

<sup>85</sup> Maitland Mercury, 5 Jan 1910, p 5

plate, particularly by the armament firm Krupp. Other advances made improved warships that were better defended and harder to hit. Regarding the fortifications at 41 The Terrace, which had the 'best gun' in Newcastle, it could not be fired due to 'underground disturbances' that had occurred twice.<sup>86</sup>

One secondary source states that the 8 inch gun was removed from Fort Scratchley about 1910. It suggests that the Shepherds Hill may have been removed at that time as well.<sup>87</sup> No primary source has been located to indicate if this was so. In 1920, the gun was sold to the steelworks as scrap metal.<sup>88</sup>

Joseph Head of Seven Hills was contracted on 24 December 1913 to carry out repairs, improvements and painting to several buildings at Fort Scratchley and 'Shepherds Hill' (41 The Terrace). The agreed fee was £179. The work was to be completed by 4 March 1914.<sup>89</sup>

Australia joined Great Britain in her war against Germany in August 1914. The presence of German ships in the Pacific kept the gunners in a high state of readiness. As it became apparent that the likelihood of seeing action grew ever slimmer, boredom set in, as chronicled by the anonymous artillery officer "Fronsac", in his publications.<sup>90</sup> Members of the coast artillery were lost to the Imperial Forces fighting overseas. However, the gun at 41 The Terrace was already unserviceable so the battery was probably not manned by coast artillery personnel.

#### 4.2.8 Port War Signal Station

'Shepherds Hill' (41 The Terrace) remained a significant defence asset but it was underutilised. Its value had been recognised. On 20 July 1915, the Director of Naval Reserves suggested that Shepherds Hill was a better place for the Port War Signal Station that identified whether ships approaching Newcastle were friendly or hostile than the existing station. The site was currently under military ownership and the battery had been abandoned 'owing to a land creep making it unsafe to fire the guns'.<sup>91</sup>

The Chief Surveyor, Department of Home Affairs, reported on 5 January 1916 that the Secretary of the Department of Defence had no objection to the Navy using the site for the Port War Signal Station. Since the District Master Gunner occupied the cottage at 'Shepherds Hill' (41 The Terrace), the cottage should be retained for that purpose.<sup>92</sup> The Department of Defence informed the Department of Home Affairs on 3 March 1916 that 'Shepherds Hill' (41 The Terrace) would not be handed to the Navy. However, they would be allowed to use it for a Port War Signal Station but the cottage would be retained for the Master Gunner.<sup>93</sup> In September 1916, 41 The Terrace was handed to the Navy to become the Port War Signal Station along with its buildings (Signal Cabin, Storeroom) but the quarters remained in the hands of the Army.<sup>94</sup> Despite that, on 2 November 1916, the Navy occupied the quarters.<sup>95</sup>

The Department of Navy issued a Requisition for the quarters on 29 January 1917, for painting internally and externally, glazing windows, repairing window sills, repairing plumbing and repairing the fence. The reason was that a new occupant would be moving in.<sup>96</sup> The Specification and cost estimate detailed the work involved (Figure 133 and Figure 134).<sup>97</sup>

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86 SMH, 18 June 1910, p13

87 Lt-Col R S Mort, *The Story of Shepherd's Hill*, Newcastle City Council, Newcastle, 1988

88 NAA, SP394/1, NL23/2211, 20/2156; NAA, SP459/1, 518/2/57

89 Commonwealth Government Gazette, 10 Jan 1914, p 45

90 "Fronsac", *Garrison Gunners Part 1*; *The legends of a subaltern*; Part 2, *The Port-Cullis*, Tamworth Newspaper Co Ltd, Tamworth, 1929

91 NAA, SP394/1, NL23/2211, No 1717

92 NAA, SP394/1, NL23/2211, No 1916/143

93 NAA, SP394/1, NL23/2211, No 1916/885

94 NAA, SP394/1, NL23/2211, 23 June 1920

95 NAA, SP394/1, NL23/2211, 1920/2415

96 NAA, MP472/1 18/17/4634, Letter B13/2/116; See also NAA, MP472/1 18/17/4636


97 NAA, MP472/1 18/17/4634, Letter C1917/504

		C.17/285		
		NAVAL QUARTERS - SHEPHERD'S HILL.	504	
		REPAIRS & PAINTING.		
Item.	See seat to closet pan	say	12	5
"	Fill in old urinal gutter and make good to cement, also new bottom plate to iron screen	"	2 10	-
"	See door to back of building.	"	2 5	-
"	Remove two 3 ft. lengths of iron fencing where gate was previously	"	10	-
"	Renew verandah boards and joists as required and secure posts	"	5	-
"	Re-secure glass to windows where necessary, providing new putty, do.	"	2	-
"	Base or tighten windows as required to stop rattling	"	3	-
Item 18	See 24 gauge G.I. eaves gutters to front verandah 1/2		18	-
Item	Refix louvre shutters to two doors.	say	10	-
"	See louvre shutters to one window.	"	3 15	-
"	Repair fire boxes and leave secure, provide 6" galv. Taper Bolts.	"	1	-
Item	Remove 30 feet division picket fence.	"	10	-
"	Overhaul picket, paling, and iron fences, repair as required.	"	5	-
"	Provide and fix new grooved draining board and surround sink.	"	1 5	-
No. 3	Single light inverted pendants, replacing worn and obsolete fittings.	17/6	2 12	6
" 2	Inverted incandescent adapters and burners on existing brackets	5/6	11	-
" 2	New cords to windows	5/-	10	-
Sq ft. 7	21 sq. Clear glass in windows (4 panes) (broken before Navy Department took over building)	1/4	12	3
Item	Re-secure one ancient lantern back verandah	say	1	-
Forward.....			54	3

Figure 133: The Cost Estimate of works needed to the PWSS at Shepherds Hill. (Source: NAA, MP472/1 18/17/4634, Letter C1917/504)



-2-



NAVAL QUARTERS - SHEPHERD'S HILL. (CONT'D)

	Brought Forward,		33	2	3
No. 20	Provide and fix new sheets of iron on roof	8/-	8	-	-
84 yds 168	Paint roof iron two coats "Ferrodor"	1/2	9	16	-
* 404	Paint external woodwork two coats	1/2	23	11	4
* 100	Burn off internal woodwork	2/-	10	-	-
* 624	Paint internal woodwork 2 coats (3 on work burnt off)	1/2	36	8	-
* 220	Paint iron fences 2 coats "Ferrodor"	1/2	12	16	8
* 400	Paint picket fences 2 coats	1/2	23	6	8
			157	0	11
	Provisional Sum		5	-	-
			<u>£162</u>	<u>0</u>	<u>11</u>

SAY £162.

Figure 134: The Cost Estimate of works needed to the PWSS at Shepherds Hill. (Source: NAA, MP472/1 18/17/4634, Letter C1917/504)

An inspection report of 29 June 1917 by Commodore F Tickell, Director of Naval Auxiliary Services reported that the quarters were well built but badly needed repairs. The sewerage system and drainage was unhealthy. It could be repaired by naval ratings at cost of £15 for materials. The quarters at the Port War Signal Station consisted of a galvanised iron shed in poor repair, that was neither wind nor rainproof. It could be repaired by ratings at a cost of £14.<sup>98</sup> The work was approved on 6 July 1917 including the cost of materials.<sup>99</sup>

A further report of 2 July 1917 stated that the naval quarters at Shepherds Hill occupied by Warrant Officer Baker, RAN staff were inspected by Commodore F Tickell, Director of Naval Auxiliary Services. The quarters were 'in a very bad state of repair and not fit for habitation'. Baker could only occupy two rooms, since the others were in such a poor state. Baker would be relieved of paying rent from 1 July 1917.<sup>100</sup> On 17 October 1917, it was reported that though the repairs and painting were not yet finished they were nearing completion.<sup>101</sup>

Previously on 19 September 1917, a fierce gale lashed Newcastle. The local press reported that 'The naval charthouse on Shepherd's Hill, overlooking King Edward Park, was almost

<sup>98</sup> NAA, MP472/1 18/17/4634, Letter N17/1206

<sup>99</sup> NAA, MP472/1 18/17/4634

<sup>100</sup> NAA, MP472/1, 18/17/4573, 17/4573

<sup>101</sup> NAA, MP472/1, 18/17/4573, 6/8/5

demolished, and portion of the iron from it was seen in the A A Company's paddock west of the reserve, and fully a quarter of a mile from the building.<sup>102</sup> An urgent requisition of 26 September 1917 to repair damage from the gale to the Port War Signal Station, quarters and assistant SDN officer's quarters at a cost of £158 was issued.<sup>103</sup> Work did not commence immediately and on 15 November 1917, a navy memo dealing with the subject of the 'Re-erection of housing accommodation at Newcastle Port War Signal Station. Former accommodation destroyed by storm' was completed. It reported that the sleeping accommodation of the ratings at the Port War Signal Station was currently the gun pit, 'which is absolutely unhealthy' and could cause rheumatic fever.<sup>104</sup>

A Requisition for alterations to the Port War Signal Station was issued on 26 June 1918, outlining an estimated cost of £358 for the work. The sum was reduced to £315.<sup>105</sup> All that work was approved on 5 August 1918 except the erection of the Chief Petty Officer's room, which was to be completed by naval ratings. That work involved boarding in the lower section of the 'Lookout Station'. However, on 3 September 1918, a memo noted that the work was in abeyance due to other pressing work.<sup>106</sup> To prioritise the work, the Naval Secretary reported on 18 September 1918 that the men were living in the underground gun pit, which was damp and unhealthy, and urged that construction works should proceed.<sup>107</sup> The work was approved by Treasury on 9 October 1918.<sup>108</sup>

An undated Memo of 1919 recorded that an inspection of the quarters revealed that the roof was 'completely corroded through and beyond repair'.<sup>109</sup> In response to that issue a Requisition dated 12 May 1919 outlined work needed at Shepherds Hill as:

#### **1. MAIN ROOF & SKILLION**

*Renewing G C I roof & skillion*

*Residential quarters, Shepherds Hill, as necessary 70.0.0*

*Painting 13.10.0*

#### **2. VERANDAH**

*Renewing G C I of verandah roof 12.10.0*

#### **3. PAINTING**

*All external woodwork and verandah roof 35.0.0*

#### **4. FENCE**

*Renewing posts where necessary – strengthening, etc 7.10.0*

*[Total] £138.10.0<sup>110</sup>*

A note recorded that an additional sum of £150 had been recommended on 5 July 1918, most likely relating to the replacement of the roof, painting and fence repairs.<sup>111</sup>

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102 Newcastle Morning Herald, 20 Sept 1917, p 4

103 NAA, MP472/1, 1/17/7162, Req 7162

104 NAA, MP472/1, 1/17/7162, 17/7163

105 NAA, MP472/1, 18/18/4747

106 NAA, MP472/1, 18/18/4747

107 NAA, MP472/1, 18/18/4747

108 NAA, MP472/1, 18/18/4747, JMT/EB 18/32293

109 NAA, MP472/1, 18/18/4747

110 NAA, MP472/1, 18/18/4747

111 NAA, MP472/1, 18/18/4747, DNW19/2830

On 1 May 1919, a contract was signed with H Hutcherson and Son, builders of Bruce Street Newcastle to construct new men's quarters, W Cs, shower baths, etc at 'Shepherds Hill Port War Signal Station' for the Navy at a cost of £363 (Figure 135 and Figure 136).<sup>112</sup>

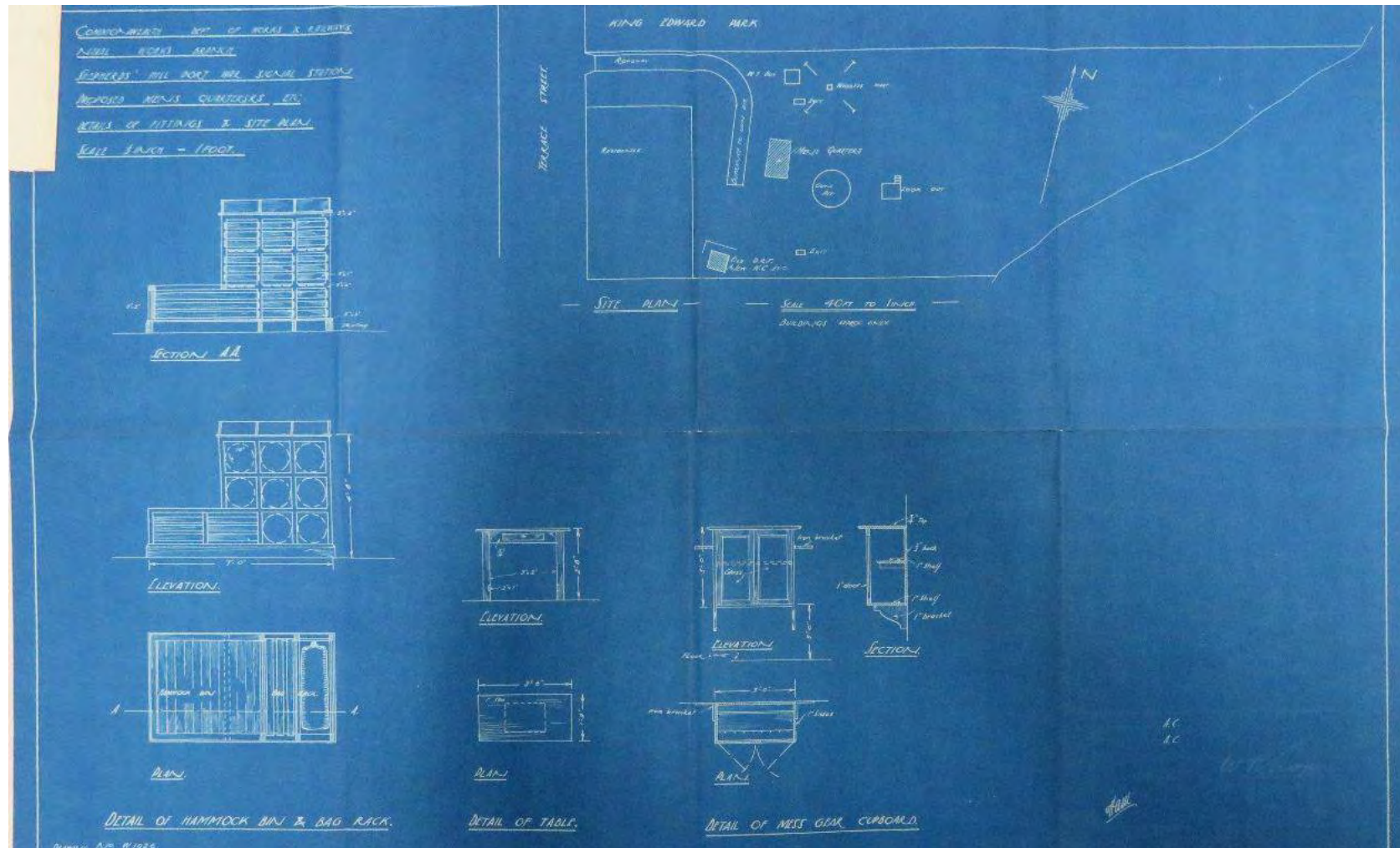


Figure 135: Plan of works at 41 The Terrace for the Port War Signal Station, in May 1919. (Source: NAA, SP155/1, 14)

<sup>112</sup> NAA, SP155/1, 14



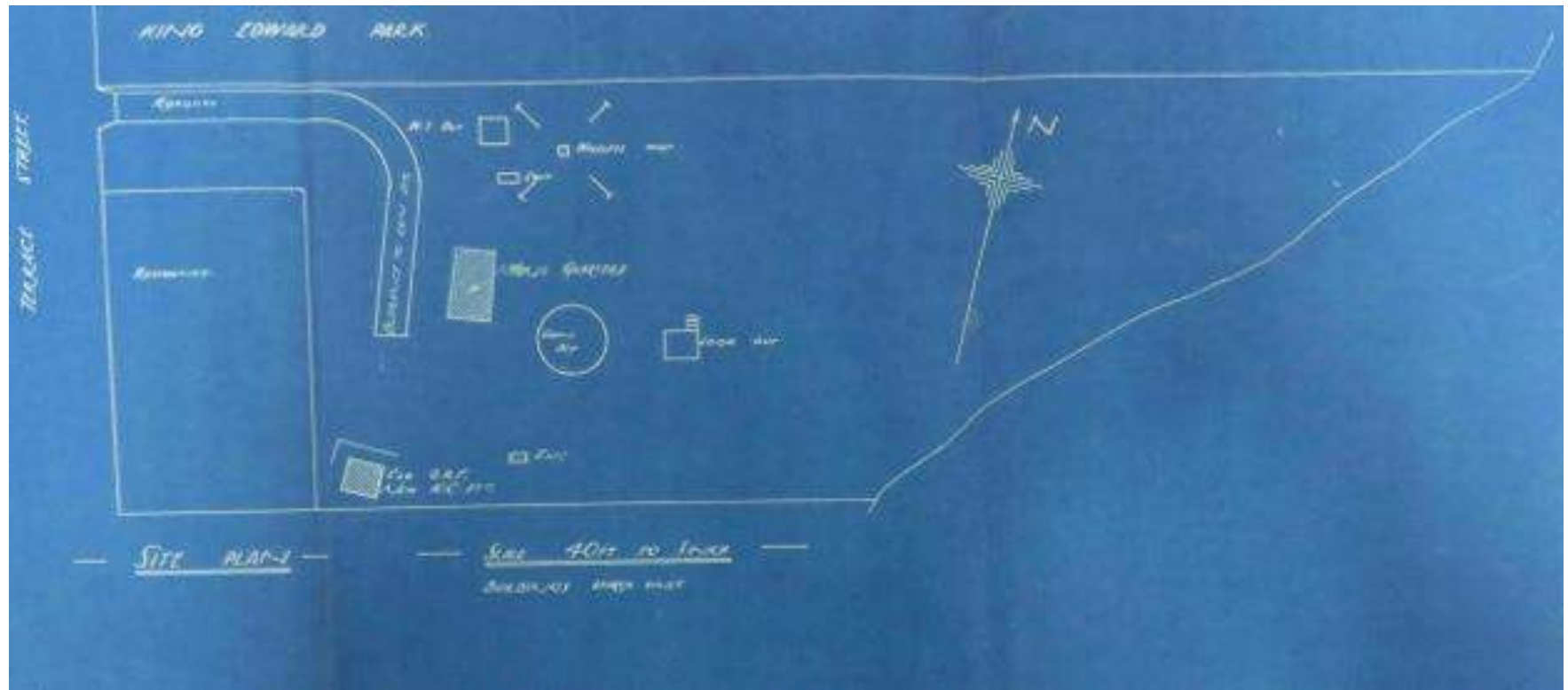


Figure 136: Enlargement of the plan of works at Shepherd's Hill for the Port War Signal Station, in May 1919 showing position of the buildings. (Source: NAA, SP155/1, 14)

All work had been completed by 3 September 1919 at a cost of £363.<sup>113</sup>

On 3 January 1920, the Commonwealth Works Department decided to officially hand over the quarters to the Navy. When the property was valued on 23 January 1920, it was described as:

*The Quarters consisting of a wooden residence – comprising dining room, sitting room, two bedrooms, spare room, kitchen, open verandah around two sides, glassed in verandah at back, also gal iron laundry, brick W C and bathroom.*

*The premises are connected with the Newcastle Sewerage system and water has been laid on.*

*Site is well fenced and all buildings and fences are in a fair state of repair.*

*I am of the opinion that a fair valuation for the whole of above would be about £700.<sup>114</sup>*

*The quarters were formally transferred to the Navy on 22 January 1920.<sup>115</sup>*

A memo dated 16 March 1920 by the Secretary of Defence noted that certain military buildings had been transferred to the Navy in 1916 including the building used as quarters of the Master Gunner of the Royal Australian Garrison Artillery. The Minister had agreed to hand the cottage over to the Navy and required a valuation.<sup>116</sup> A plan of the site signed by W R Swan, Superintendent, Naval Engineer for New South Wales was completed on 17 July 1920. The plan showed the quarters and fortification for the 8 inch breech loader. Other buildings on the site, which had been added by the Navy were marked as 'New', and included the wireless hut, wireless mast, men's quarters (also marked as 1917), and a WC (Figure 137). A memo despatched on 27 July 1920 stated that the structures shown in black ink had been added by the Navy since November 1916.<sup>117</sup>

George Oakeshott, Works Director for New South Wales, reported on 27 July 1920 that the Acting District Works Inspector had described the property as:

*The Port War Signal Station at Shepherds Hill Fort, consisting of old Gun Pit, Shell Recesses, Shell Room, General Store and two D R F Stations was taken over by the Navy on the 1st September 1916. The Quarters were occupied by the Navy on 2nd November 1916 and they had been in occupation ever since.*

*The present value of buildings and fences is as follows: -*

*Quarters (a wooden building with iron roof) £700.0.0*

*Fences – Picket, paling and wire around building and fort 100.0.0*

*Two concrete D R F Stations @ £50 100.0.0*

*Old Gun Pit, Gun (sold to Steel Works), Shell Room, Magazine, etc (The whole of these buildings are underground and in a dilapidated condition) say 300.0.0*

*Total present value of buildings £1200.0.0.<sup>118</sup>*

Subsequently, on 6 September 1920, the Secretary of the Navy requested a plan of the site.

<sup>119</sup> The plan supplied was NEG 3146 compiled from the plan in NL20/2136 [There is no file

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<sup>113</sup> NAA, MP472/1, 18/18/4747, DNW19/2830

<sup>114</sup> NAA, SP394/1, NL23/2211, No 1920/515

<sup>115</sup> NAA, SP394/1, NL23/2211, 23 June 1920

<sup>116</sup> NAA, SP394/1, NL23/2211, No 1920/893

<sup>117</sup> NAA, SP 394/1, NL23/2211, Plan S 185

<sup>118</sup> NAA, SP 394/1, NL23/2211, 20/2156

<sup>119</sup> NAA, SP394/1, NL23/2211, 6 Sept 1920

with these numbers at NAAJ. This plan served as a basis for the other plan with notations indicating which buildings had been constructed for the Navy.

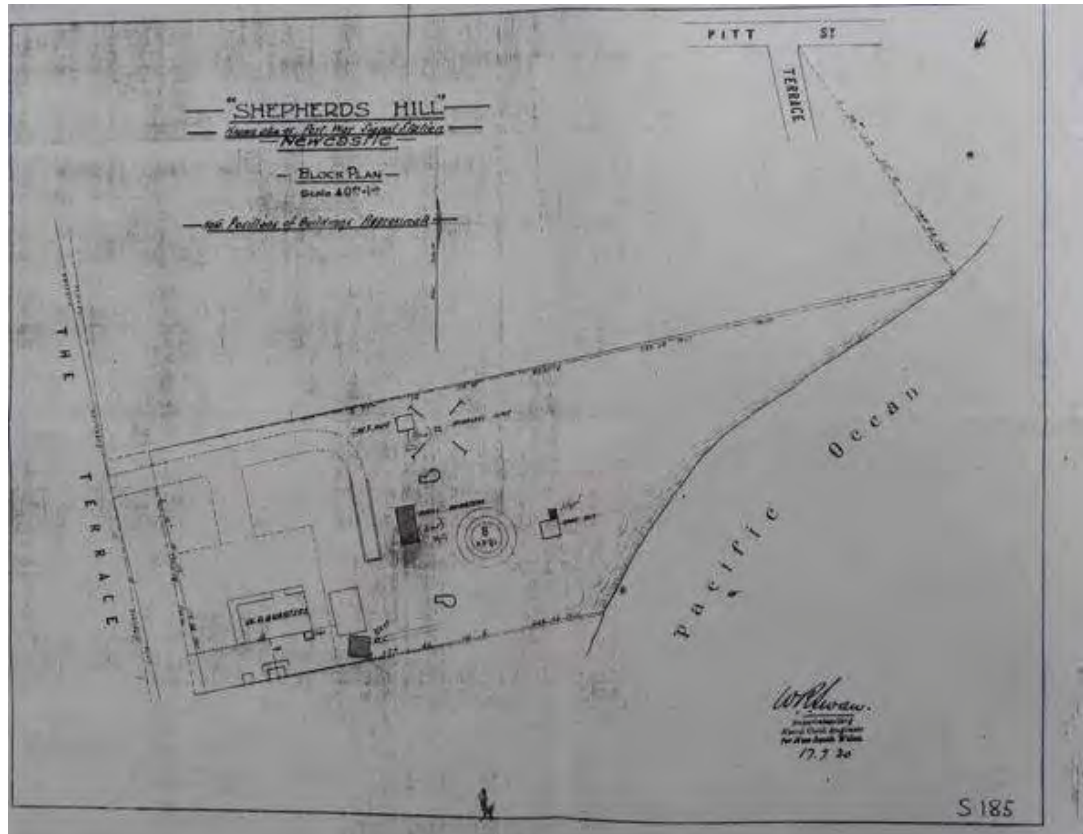


Figure 137: This plan of the Port War Signal Station showed the buildings on the site. (Source: NAA, SP394/1, NL23/2211, Plan S 185)



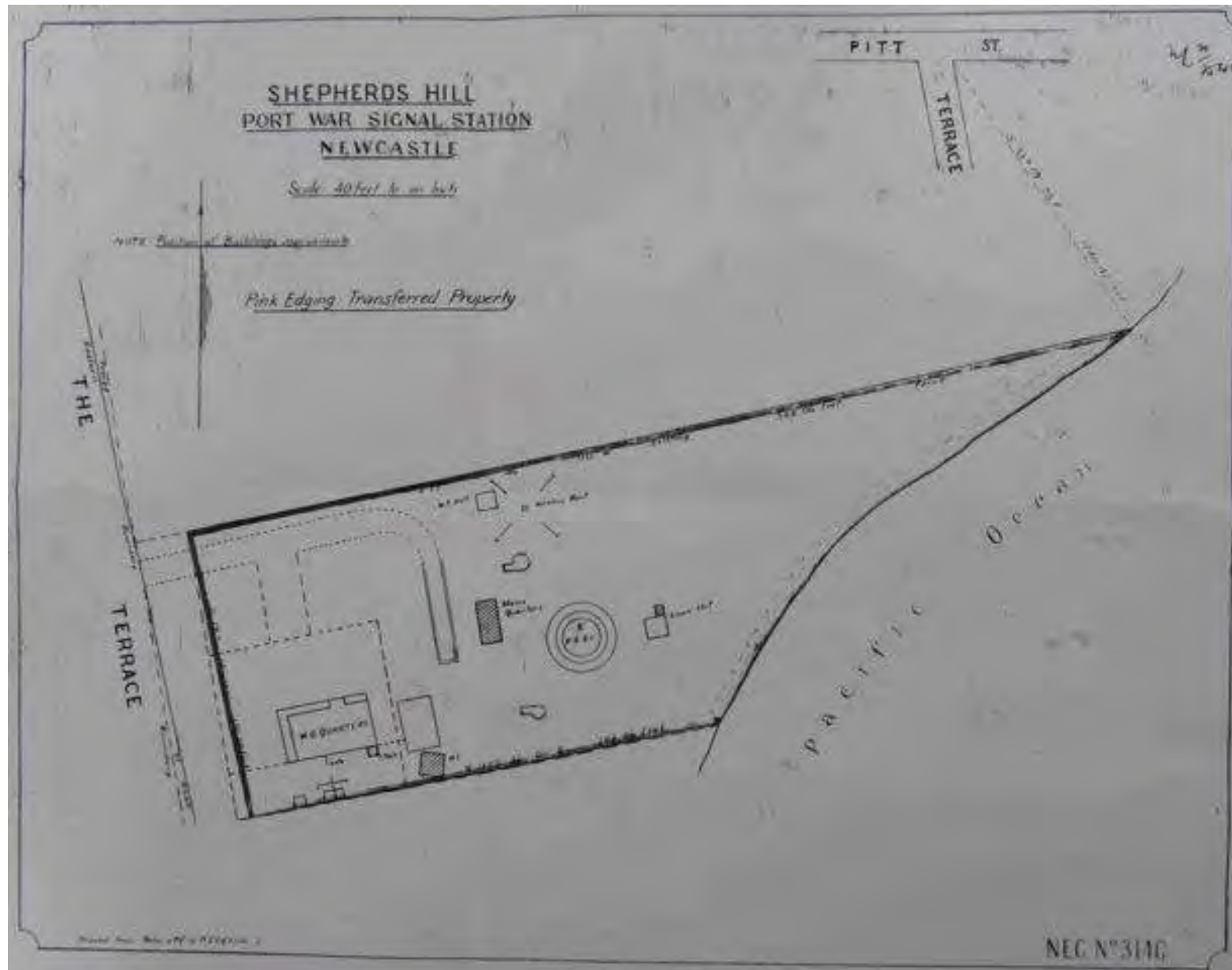


Figure 138: Another version of the plan of the Port War Signal Station, with letter of 6 September 1920. (Source: NAA, SP394/1, NL23/2211)

Another copy of the site plan is in NL20/2684, in its original form.

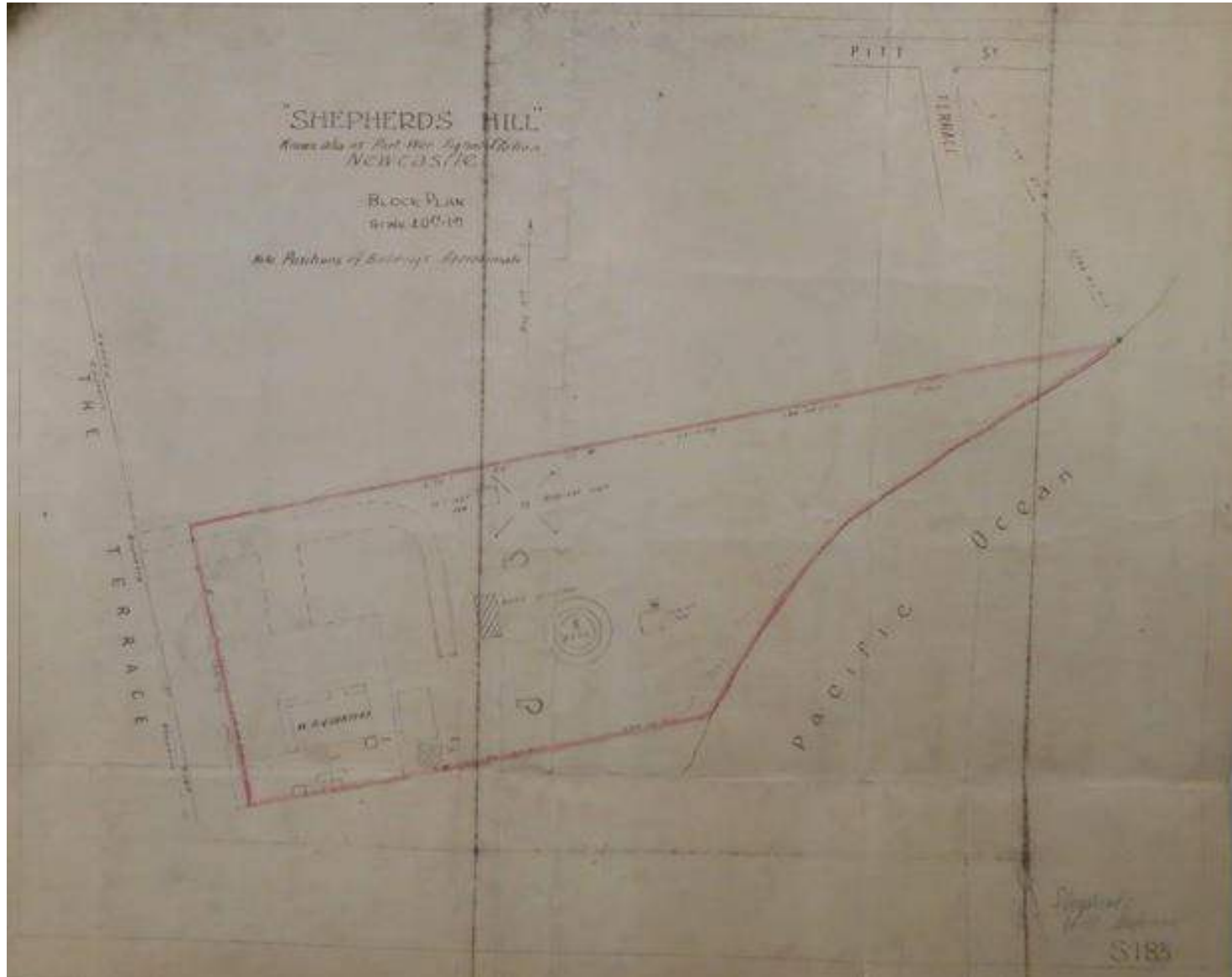


Figure 139: Another version of the plan S 185. (Source: NAA, SP394/1, NL23/2684)

A description of the cottage for a valuation for the Department of Navy dated 15 September 1920 described the cottage as:

*This cottage is well situated near the most elevated and most desirable residential part of Newcastle, and consists of wood with galvanised iron roof, and contains five large rooms kitchen with pine lined 10 foot walls, galvanised iron laundry, brick w c with galvanised iron roof, and wood fuel shed with galvanised iron roof. The paths and back yard are paved with brick and the whole is well enclosed with picket fence at front and side, and galvanised iron and paling along rear portion as shown in sketch herewith marked F.*

*The cottage was erected about 30 years ago, is in good repair, and is occupied by Mr Baker who is employed by the Navy.*

*The cottage is sewered, and is lighted with gas, and has electric light wires fixed, but that light is not in use.*

*The capital value is fixed at £650 and the rental value assessed and £45 per annum.*

<sup>120</sup>

A sketch of the cottage and the internal room layout was attached as Sketch F. <sup>121</sup>

It is notable that no details of chimneys are shown.

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<sup>120</sup> NAA, SP394/1, NL23/2684

<sup>121</sup> NAA, SP394/1, NL23/2684



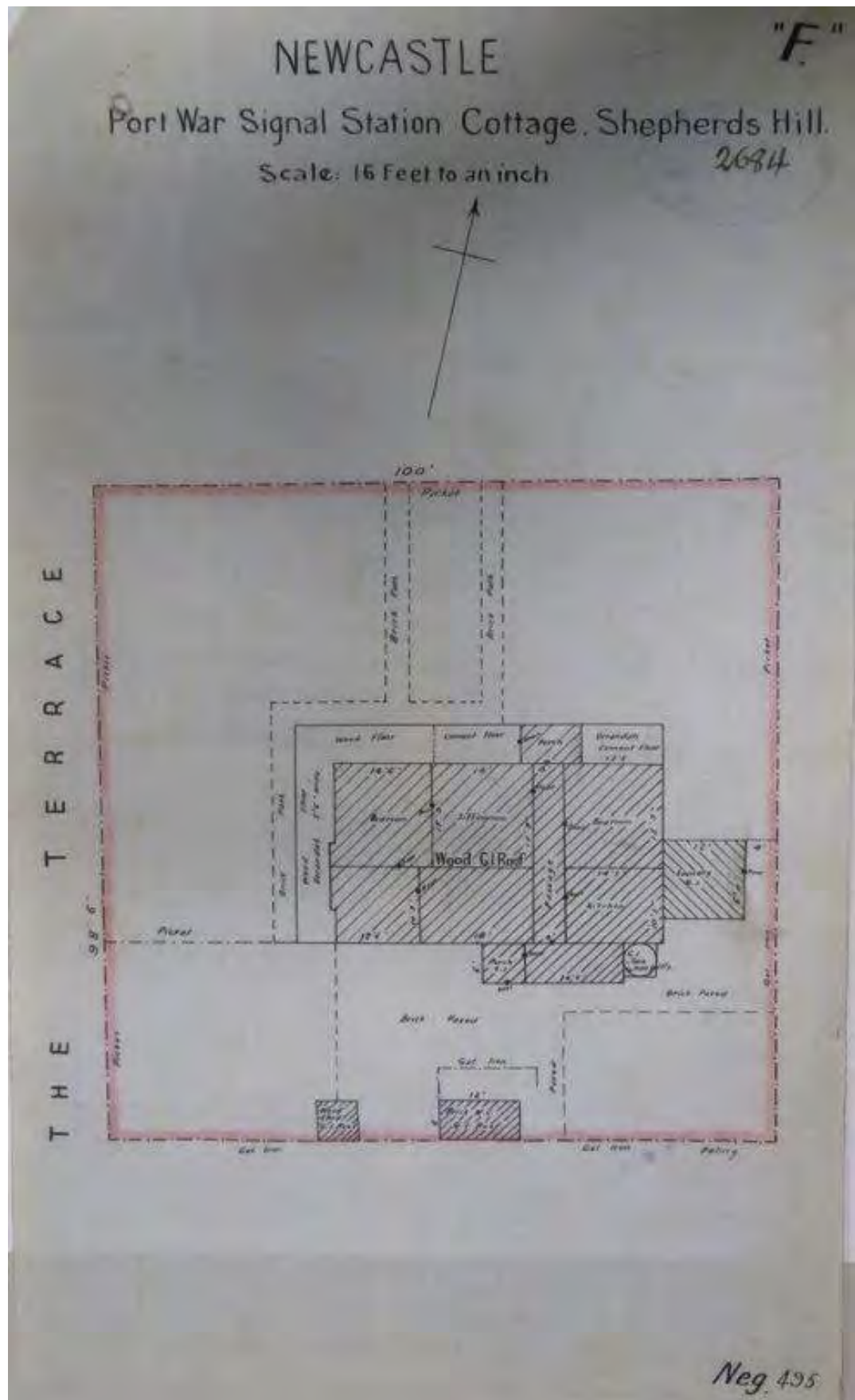


Figure 140: Layout plan of the cottage about September 1920. (Source: NAA, SP394/1, NL23/2684, Neg 495)

Another version of the valuation dated 17 November 1920 provided the same quotation, but added the following details:

*The accommodation consists of the following: -*

*Three bedrooms: 14' 6" x 15' 9"*

*14' 3" x 15' 9"*

*12' 6" x 10' 3"*

*Sitting room: 14' 0" x 15' 9"*

*Living room: 16' 0" x 10' 3"*

*Kitchen: 14' 3" x 10' 3"*

*Laundry: 12' 0" x 6' 11"*

*Sheds, tank, etc.*<sup>122</sup>

On 15 September 1922, John H Shearman of 89 Union Street, Newcastle was contracted to carry out repairs and painting for £131.<sup>123</sup>

A memo dated 12 September 1923 by the Director of Works reported that 41 The Terrace had originally been a battery site, but land creep made it unsafe for firing the gun. The gun was removed and sold for scrap iron in 1920. After the Navy occupied the site, the quarters were held by the military but were unsuccessful in obtaining the value for them from the Navy. It then decided to transfer it to the Naval Board.<sup>124</sup>

#### 4.2.9 Inter-War Defence Planning

On 30 April 1928, William James, Commanding Officer, Number 1 Heavy Brigade, Royal Australian Artillery, reported that the alteration of the position of the Fire Command Post at Newcastle was under consideration. The existing one at Fort Scratchley was no longer suitable. It did not give a clear view of the water covered by the batteries, vision of the control post was obscured by dust and smoke during firing operations and it was too far from the Port War Signal Station at 41 The Terrace, slowing communications. He suggested that the disused battery position at 41 The Terrace was the most suitable site for a new Fire Control Post, 'immediately in front of the 8" gun emplacement and within speaking distance of the P.W.S.S.' In addition, it had a clear view of the water controlled by the guns and the harbour entrance and also kept the gun sites under observation at all times both day and night. The Navy had acquired the quarters, which were now occupied by the Sub-District Naval Officer, Newcastle, with the Port War Signal Station alongside. James did not propose to move the Navy, but recommended that the Fire Control Post be as close to it as possible. To achieve this goal, he recommended that a small area be acquired for 'a pedestal and overhead cover to be constructed for the F. C staff and their access by Artillery personnel to the position as required for manning be arranged'.<sup>125</sup> There was no immediate action to implement these recommendations.

Lieutenant-Colonel V Sturdee, Director of Military Operations, in a report dated 9 October 1934 on Coast defences identified Shepherds Hill, Moyra Head and Redhead as likely Fire Observation Posts to serve the coast defences of Newcastle.<sup>126</sup> Major-General Lavarack, Chief of the General Staff, informed the Minister on 16 September 1935 that the only way to

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<sup>122</sup> NAA, SP 394/1, NL23/2684

<sup>123</sup> Commonwealth Government Gazette, 12 Oct 1922, p 1778

<sup>124</sup> NAA, SP 394/1, NL23/2684

<sup>125</sup> NAA, SP1048/7, S10/1/130, S9/1928

<sup>126</sup> NAA, SP1048/7, S10/1/130

improve the defences of Newcastle was to install two 9.2 inch guns. The guns should be ordered immediately. Meanwhile, work should commence preparing for the installation.<sup>127</sup>

A reconnaissance of potential defence sites at Newcastle was carried out on 19 and 20 September 1935 by Majors P W Dobson MC, J S Whitelaw and D L Davies, MC, of the Australian Staff Corps. It identified 'Shepherds Hill' as a suitable Fire Observation Post and Fire Control Post. It recommended Fire Observation Posts be located at Redhead, 'Shepherds Hill' and Hill 100 with a Fire Control Post at 'Shepherds Hill'. Batteries should be established at Wallace and Scratchley.<sup>128</sup> Subsequently, Percy Dobson became the Commander, Newcastle Fortress, controlling the guns defending Newcastle as well as the various Observation posts.

In October 1935, an estimate of costs for defence improvements at Newcastle signed by Major-General Lavarack included in addition to the cost of purchasing the heavy guns, the sum of £10,000 that should be added to the 1936-37 estimates for 'Fire Command Stations, Communications, D E Ls'. In his summary, he anticipated the cost of the equipment for the Fire Command plus ammunition, D E Ls, plant, etc would be £66,250. In addition, works for the Fire Command Station and workshops would cost £23,000.<sup>129</sup>

Colonel V Sturdee, Director of Military Operations wrote to Victoria Barracks, NSW in September 1937 that defence equipment to be installed at Newcastle included defence electric light equipment and two breech loading 9.2 inch heavy guns that were being manufactured in Britain to be installed at Fort Wallace. Instruments had been ordered for the Fire Command Post. Construction of the Fortress Observation Post would commence in the financial year 1938-39.<sup>130</sup>

The District Naval Commander, NSW, RAN, sought information from the New South Wales army command on 12 October 1937, regarding the minimum essential requirements for the peacetime operation for the Port War Signal Station at 41 The Terrace, so that the station could function as soon as war broke out. These requirements were accommodation for the crew, consisting of one Officer, two Chief Petty Officers and 17 ratings, accommodation 8 feet square for a wireless telephone set and accommodation 8 feet square for stores.<sup>131</sup>

In a letter of 21 December 1937 to the Newcastle Sun newspaper, H V Thorby, Minister for Defence, wrote that Newcastle was one of the main ports. It would be defended as essential in time of war. To improve the current defence, modern heavier guns would replace those at Fort Wallace. A new fire command system would be built and a defence electric light system would be installed.<sup>132</sup> The Secretary for the Army reported on 17 January 1938 that the Minister had approved the expenditure of £9,600 for the Fire Command works at Newcastle.<sup>133</sup> A memo dated 17 November 1938 from the Commonwealth Director-General of Works outlined that £3,840 out of the estimated cost of £4,440 had been approved for the completion of the Fire Control Scheme at Newcastle. Acquisition of the land was estimated to cost £600 was being dealt with by the Property and Survey Branch.<sup>134</sup> The 9.2 inch guns for Newcastle were mounted at Fort Wallace replacing two 6 inch Mark VII guns mounted in 1913.<sup>135</sup>

#### 4.2.10 World War Two

A Specification was issued for tenders for the erection of the Fire Observation Post at 41 The Terrace on 13 October 1939. It specified that the site was covered with sandy loam soil and was grassed but otherwise clear of vegetation. No plans are included with the surviving copy of the Specification.<sup>136</sup> On 8 November 1939, the tender of C Hutcherson, 26 Abbotsford

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127 NAA, MP729/6, 23/403/87 Newcastle BL 9.2" Armament (incl Fire Cmd and DELs) Policy File

128 NAA, SP1048/7, S10/1/130

129 NAA, MP729/6, 23/403/87 Newcastle BL 9.2" Armament (incl Fire Cmd and DELs) Policy File

130 NAA, MP729/6, 23/403/87 Newcastle BL 9.2" Armament (incl Fire Cmd and DELs) Policy File

131 NAA, SP1048/7, S10/1/160

132 NAA, MP729/6, 23/403/87 Newcastle BL 9.2" Armament (incl Fire Cmd and DELs) Policy File

133 NAA, SP1048/7, S1/1/615

134 NAA, SP1048/7, S10/1/217 Newcastle Defences, 1938

135 Lt-Col R S Mort, The Story of Shepherd's Hill, Newcastle City Council, Newcastle, 1988

136 NAA, SP155/1, DEF22173G



Road, Homebush, was accepted at the price of £1,097. The contract was due for completion on 31 January 1940.<sup>137</sup>

In 1938, Commander Harvey of the Navy visited Newcastle and chose the site for the Port War Signal Station at 41 The Terrace. As war commenced, another Port War Signal Station was established at Nobbys, to deal principally with Navy vessels. Later, objections were made by Navy staff at Sydney and Newcastle to shifting the Port War Signal Station established at Nobbys to 41 The Terrace.<sup>138</sup>

On 18 October 1939, F E Cavaye, Commander, Royal Navy, Naval officer in charge, Newcastle, reported that a proposal to move the Port War Signal Station from the newly established Port War Signal Station for naval ships at Nobbys to 'Shepherds Hill' (41 The Terrace) was not a practical suggestion. It would mean less work and practical experience for the Navy staff at Nobbys, cause a large additional expense, and would have dual control with the army.<sup>139</sup> On 14 March 1940, a recommendation that transfer of the Port War Signal Station to 41 The Terrace be cancelled and all buildings be handed to the army was formulated. The Port War Signal Station at Nobbys would become the Battery Signalling Station, and all personnel would be accommodated at Nobbys rather than 41 The Terrace.<sup>140</sup>

An official Minute paper of 29 March 1940 by the Department of Navy, compared the relative merits of establishing the Port War Signal Station at 41 The Terrace with Nobbys. It confirmed that 41 The Terrace had significant advantages, including a higher elevation, observation of a larger area than Nobbys, incorporation within a designed building, accommodation was already available, there was a specially built wireless room, it had direct communication with the Battery Commander in the same building, good visual communication and location within concrete building 'affording a good measure of protection'.<sup>141</sup> Adjacent to the building in which the Port War Signal Station was to be established at 41 The Terrace was the RAAF wireless under the control of an RAAF Liaison officer. With the RAAF, Navy and Army in the same building, 41 The Terrace also possessed 'close co-ordination of defence control'.<sup>142</sup>

On 8 April 1940, the Naval Board overruled all objections and ordered that 41 The Terrace would become the Port War Signal Station for Newcastle, since 'Incorporated in the same building are important Army Operational Rooms, and adjacent will be an R. A. A. F. Wireless Control Station. The whole arrangement was planned and should operate shortly as the nerve centre for Newcastle's defence.' It ordered that the Shepherds Hill Port War Signal Station become operational as soon as possible.<sup>143</sup>

The Battery Observation Post (BOP) with a Depression Range Finder (DRF) was built at 41 The Terrace. The information compiled by the DPF was converted to data for the guns and transferred to the Battery Plotting Room (BPR) at Fort Wallace. The Battery Commander (BC) based at the BOP directed the fire of the guns as did the Fire Controller (FC) and Officer Commanding Searchlights (OCSL) who were all based in the BOP at 41 The Terrace.<sup>144</sup>

In addition, 41 The Terrace was one of a number of Fortress Observation Posts (FOP) any two of them could send target data to the Co-ordinate Converter (CC). At 41 The Terrace the FOP was in the top level in the original design but was moved to the BOP in the floor below

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<sup>137</sup> *Commonwealth Government Gazette*, 16 Nov 1939, p 2486

<sup>138</sup> NAA, MP1049/5, 1984/3/312, 1984/3/311

<sup>139</sup> NAA, MP1049/5, 1984/3/312

<sup>140</sup> NAA, MP1049/5, 1984/3/312, 84/1/100

<sup>141</sup> NAA, MP1049/5, 1984/3/312, 1984/3/311

<sup>142</sup> NAA, MP1049/5, 1984/3/312

<sup>143</sup> NAA, MP1049/5, 1984/3/312, Minute, 8 April 1940

<sup>144</sup> R K Fullford, *We Stood and Waited: Sydney's anti-ship defences 1939-1945*, Royal Australian Artillery History Soc, Manly, 1994, pp 56-7, 85-8, 90-2; Lt-Col R S Mort, *The Story of Shepherd's Hill*, Newcastle City Council, Newcastle, 1988

when Early Warning Radar was added at the top. RAAF staff originally operated the radar before being replaced by Army personnel.<sup>145</sup>

On the south side of the BOP, the Port War Signal Station was manned by Royal Australian Navy personnel. Its role was to identify warships approaching Newcastle and communicate that data to the shore batteries and to the Navy headquarters. The Navy Selected Military Officer (SMO) received that information and was responsible for giving orders to fire if the ship was hostile.<sup>146</sup>

From late 1939 until early 1942, the cottage on the site was occupied by Lieutenant-Colonel Percy W Dobson, Commander, Newcastle Fortress Command.<sup>147</sup> Lieutenant-Colonel Percy W Dobson had originally been appointed as a second lieutenant in the Royal Australian Garrison Artillery on 1 March 1912. Like many of his compatriots in the Garrison Artillery, he transferred for active service overseas serving with the 55th Battery, Siege Artillery. On 5 June 1918, he was awarded the Military Cross. Between the wars, he served as an artillery instructor as well as being a member of the Australian Staff Corps. When military authorities moved to retire him in 1938, he provided evidence of his medical condition. On 14 February 1939, on the basis of that evidence, he was classified as fit for sedentary duties. On 12 November 1939, he was appointed as Commander, Newcastle Fortress. He took up occupation of the cottage at 41 The Terrace remaining there until at least April 1946. In December 1944, he relinquished command of the Newcastle Fortress.<sup>148</sup> Despite Dobson's occupation of the 41 The Terrace, there is conflicting evidence about where he lived. In 1942, the cottage was being used as the officer's mess.<sup>149</sup> It is unclear if the mess operated in the building whilst Dobson was also living there.

Works continued to establish this site as a significant military facility. On 29 December 1939, a Specification was issued for the erection of camp buildings including mess huts, officers' and men's quarters, kitchen, ablution block and latrines.<sup>150</sup> The tender of J E Parry, 22 Murray Street Hamilton for £1,285 was accepted on 24 January 1940. To work had to be complete by 21 February 1940 (Figure 141 and Figure 142).<sup>151</sup>

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<sup>145</sup> R K Fullford, *We Stood and Waited: Sydney's anti-ship defences 1939-1945*, Royal Australian Artillery History Soc, Manly, 1994, pp 69-70, 92; Lt-Col R S Mort, *The Story of Shepherd's Hill*, Newcastle City Council, Newcastle, 1988

<sup>146</sup> Lt-Col R S Mort, *The Story of Shepherd's Hill*, Newcastle City Council, Newcastle, 1988

<sup>147</sup> Lt-Col R S Mort, *The Story of Shepherd's Hill*, Newcastle City Council, Newcastle, 1988

<sup>148</sup> NAA, B4717, Percy Walter Dobson, VP16088, NP9890, 1912-51; NAA, B1535, 859/15/1889

<sup>149</sup> NAA, SP155/1, DEF32123F

<sup>150</sup> NAA, SP155/1, DEF22647E

<sup>151</sup> Commonwealth Government Gazette, 8 Feb 1940, p 308

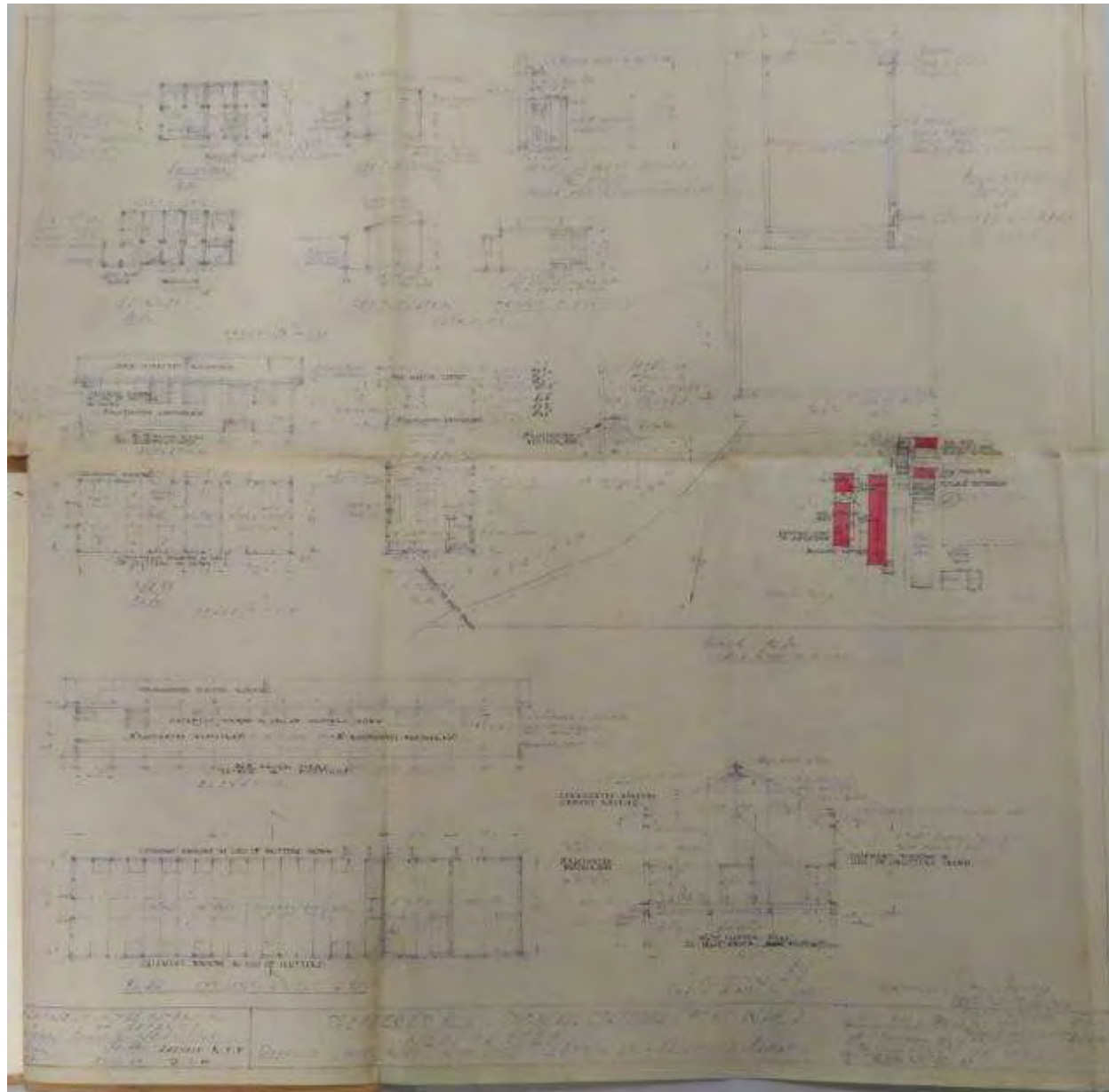


Figure 141: Plan showing buildings to be erected at Shepherds Hill. (Source: NAA, SP155/1, DEF22647E)



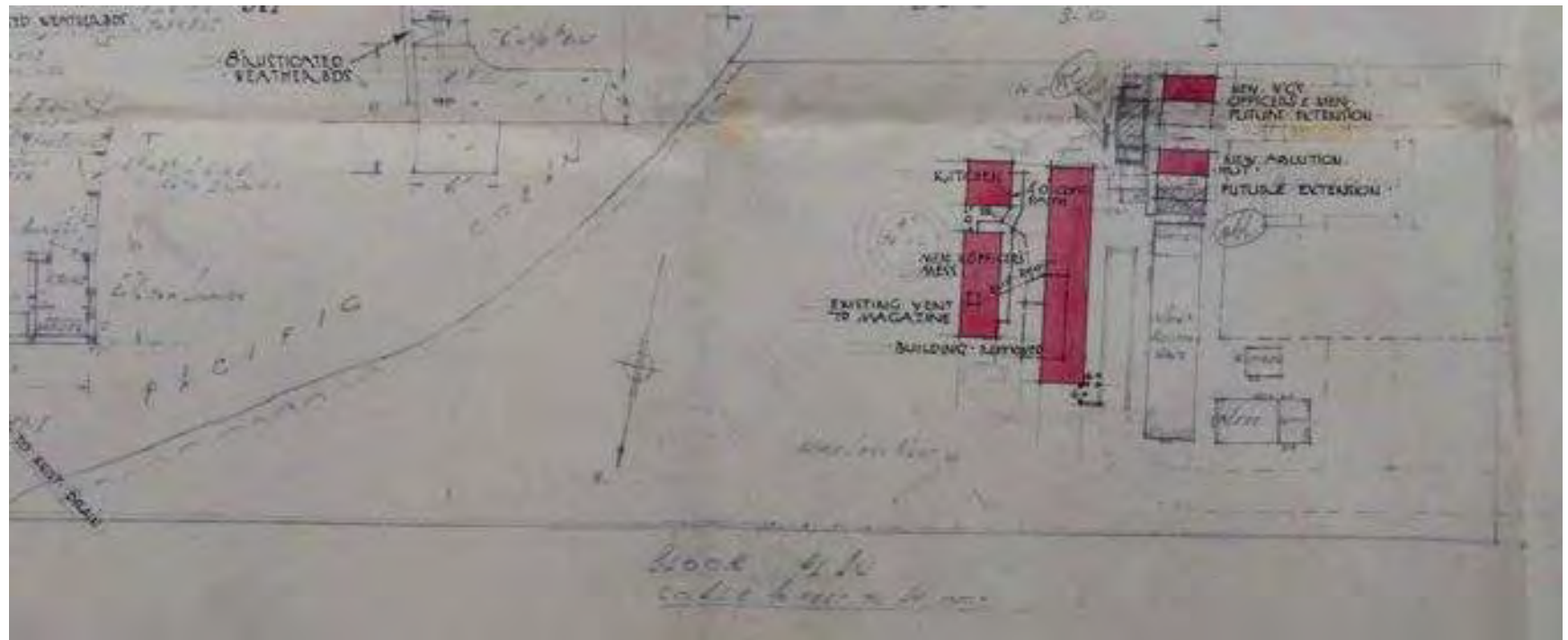


Figure 142: Enlargement of the plan of December 1939 showing building locations. Note that north is at the bottom of this plan. (Source: NAA, SP155/1, DEF22647E)

A Specification for Minor Alterations and Repairs to a building at 41 The Terrace was issued on 19 August 1940. The precise building is not identified but it related the Port War Signal Station. The work included welding steel to the entrance door of the Port War Signal Station, repairs to the glass shutter frames, and the installation of two hand type car windscreen wipers, at least 15 inches long. To the east and south face around all door and window architraves of the galley, fillets were to be inserted into grooves of the face of rusticated weatherboards, to bead all sides in putty and putty up all cracks nail holes.<sup>152</sup>

On 21 November 1940, a Site Plan was prepared of 41 The Terrace plus plans of Buildings Type A; B & C; D & E.<sup>153</sup> They formed the basis for a Specification dated 28 November 1940 for the erection of 5 framed buildings at the site as in plan DEF24650. Since they were identified as 'Naval Works', they appear to relate to the Port War Signal Station. There were no plans included with the surviving copy of the Specification.<sup>154</sup>

A Specification for the erection of a Reinforced Concrete Building to Plan DEF23560 at Shepherds Hill was prepared on 11 February 1941. The plan showed a mast attached to the building (Figure 143).<sup>155</sup> It is unclear if the building was part of the Port War Signal Station or was associated with Battery Observation Post.

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<sup>152</sup> NAA SP155/1, DEF23962

<sup>153</sup> NAA ST428/4, DEF24650-DEF24654

<sup>154</sup> NAA SP155/1, DEF24675A

<sup>155</sup> NAA SP155/1, DEF25141L

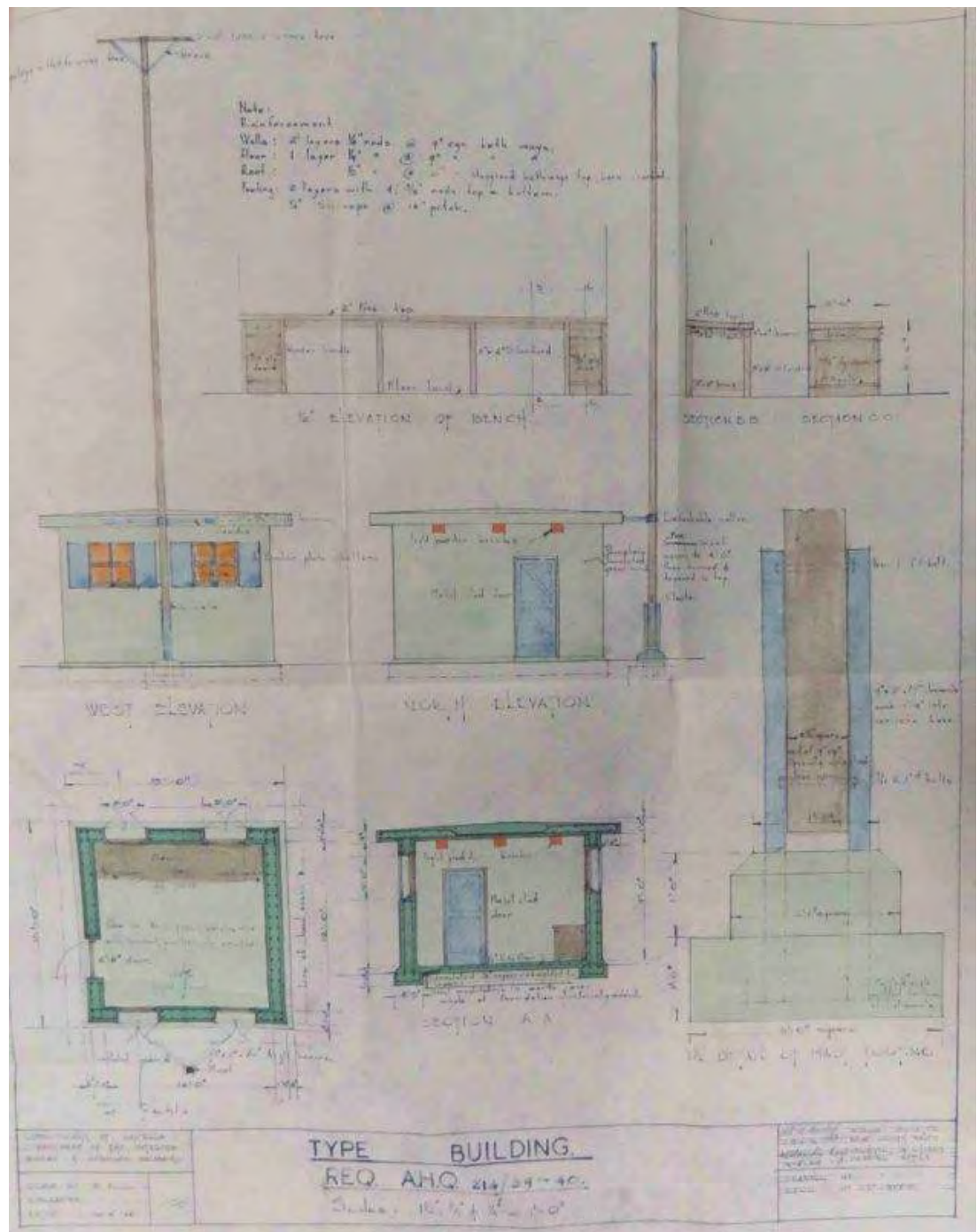


Figure 143: Plan of February 1941 of the concrete building to be erected at Shepherds Hill. Position on the man site is not known. (Source: NAA SP155/1, DEF25141L)

Lieutenant Colonel Dobson, Commanding Newcastle Fortress issued Standing Orders for Newcastle Fortress on 9 April 1941. These orders outlined procedures and the chain of command in case of attack. There were two batteries. Scratchley was armed with 6 inch guns and Fort Wallace had been armed with the new 9.2 inch guns. The officer commanding the Fortress Section was the Fire Commander and Selected Military Officer, based at the Fire Control Station, 41 The Terrace. One Fire Commander was always based at 41 The Terrace, day and night. Fire Observation Posts were located at Redhead, 41 The Terrace and Wipers,



which was located about 8 kilometres north-east of Stockton Fort. Any two would be available for any battery to use against the target closest to them.<sup>156</sup>

The troops comprising the Newcastle Fortress Command were:<sup>157</sup>

HQ Newcastle Fortress Command
Fortress Section
Scratchley Battery
Wallace Battery
3 Anti-aircraft Battery
Newcastle Fortress Company
51 Anti-aircraft Searchlight Company
60 Anti-aircraft Searchlight Company
Newcastle Fortress Signals Section
8 Garrison Battalion
8 Fortress Company, Australian Army Medical Corps

Radar was also installed at 41 The Terrace. The report dated 5 September 1941 on Sh.D Radar (Shore Defence Radar), which was the system developed in Australia outlined the distribution of the different sets across Australia and New Guinea. A total of 17 sites had been selected for siting Sh.D radar for coast defence, usually in combination with RDF (Radio Direction Finding later known as Radar) facilities and with visual observation capability. The standard two room building would house RDF equipment in one room, with the other room serving as living quarters. The standard observation layout would include visual observation on three sides. All buildings would be built of concrete with steel shuttered windows and a steel door.<sup>158</sup>

Most sites would have the standard two room configuration and some would have three rooms. However, 41 The Terrace was only one of two on the Australian mainland with a special design, and with existing visual observation capability. The other two non-standard buildings were at Thursday Island and East Point Darwin.<sup>159</sup> For 41 The Terrace, the existing building would provide visual observation and a special room would be added for the radar with the aerial mounted on the existing building.<sup>160</sup> It would service the guns at Fort Scratchley and Fort Wallace.<sup>161</sup>

Preparations for the possible invasion of Australia by Japanese forces and the potential for bombardment by Japanese Navy ships spurred the enhancement of existing coastal armaments. Supplies of surplus naval 6-inch guns were converted into coast batteries creating the 6" Mk XI gun on a P Mk 6A mounting. These guns were eventually stationed at Signal Hill battery in Sydney and at the Breakwater and Illowra Batteries at Port Kembla.<sup>162</sup> Harbour defence included an electrically charged cable running along the sea floor, which was the 'indicator loop', positioned to detect shipping movements, and was a useful warning of approaching submarines. Apart from Sydney, indicator loops were built at Newcastle and Juno Head and Hungry Beach on the Hawkesbury River.<sup>163</sup> Minesweepers kept sealanes clear of secretly laid enemy mines. In 1942, an anti-submarine boom was set up in Sydney Harbour. Other ports were similarly protected. Defence included small ships equipped to counter enemy attack by light craft into the harbour. A Naval Examination Service office was stationed in each port to clearly identify all vessels seeking to enter the harbour to ensure that no enemy sneaked in.<sup>164</sup> The RAN also set up boom defence facilities and indicator loops and so on at Port Kembla and Newcastle.

<sup>156</sup> NAA, SP553/1, 74

<sup>157</sup> NAA, SP553/1, 74, p 5

<sup>158</sup> NAA, SP553/1, 48, pp 1-2

<sup>159</sup> NAA, SP553/1, 48, p 2a

<sup>160</sup> NAA, SP553/1, 48, p 3; The location of these buildings is not known

<sup>161</sup> NAA, SP553/1, 48, ppp 35

<sup>162</sup> R K Fullford, *We Stood and Waited*, p 102

<sup>163</sup> J H Straczek, *The Royal Australian Navy: Ships, aircraft and shore establishments*, Navy Public Affairs, Sydney, 1996

<sup>164</sup> R K Fullford, *We Stood and Waited*, pp 15-9

Enhanced defence at Newcastle included the establishment of what became known as the Park Battery. An area west and south-west of the original Shepherds Hill battery was proclaimed for military purposes to become the Park Battery with No 1 gun and No 1 searchlight and engine house. Another area north of the original Shepherds Hill Battery site within King Edward Park became the emplacement of No 2 gun. Work commenced on these additional gun emplacements in 1942 when Japanese forces surged southwards towards Australia after the fall of Singapore on 15 February. The Hunter District Water Board carried out these works.<sup>165</sup> A few days after the fall of Singapore the first attack on Australia occurred when Darwin was attacked by the Japanese on 19 February. At the time Darwin was a supply base and transit camp for troops, aircraft and ships prior to deployed and as such was considered to play a key role in the defence of Australia. Following this event, raids continued on Darwin until 12 November 1943. The need for more fortifications along Australia's coastline became especially apparent following these events.

No 1 gun on Central Pivot Mark II mount was originally part of a three gun mounting from Fort Queenscliff, in Victoria. No 2 gun was a gun from Naval stores on a ship mounting, with a more substantial shield with higher elevation and longer range.<sup>166</sup>

The site for one 6 inch site was at the rear of No 1 and 3 Cliff Street.<sup>167</sup> No 3 Cliff Street had a concrete gun emplacement and rooms constructed in its back yard including a command post and entrance to the gun site.<sup>168</sup>

No 1 searchlight was located on the cliff face south of the reservoir accessible via a tunnel, with an engine room near its entrance in Nesca Place. The northern No 2 searchlight was south-east of the northern entrance of King Edward Park with its engine room near the park entrance.<sup>169</sup> Troops manning the guns, searchlights and BOP were accommodated in tents originally. Some were later in houses rented in Cliff Street, on the south side and another at the corner of Cliff Street and The Terrace as quarters and mess.

A survey of 8 January 1942 showed an area of 17 acres of land to be acquired to expand defence facilities around the original battery site at 41 The Terrace. On Shepherds Hill Fort site an Observation Post (Obsn Post) was shown as well as the site of a searchlight (S L) (Figure 144).<sup>170</sup>

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<sup>165</sup> Lt-Col R S Mort, The Story of Shepherd's Hill, Newcastle City Council, Newcastle, 1988

<sup>166</sup> Lt-Col R S Mort, The Story of Shepherd's Hill, Newcastle City Council, Newcastle, 1988

<sup>167</sup> NAA, SP16/1, 811A

<sup>168</sup> NAA, SP16/1, 811B

<sup>169</sup> Lt-Col R S Mort, The Story of Shepherd's Hill, Newcastle City Council, Newcastle, 1988

<sup>170</sup> NAA, SP857/3, PC607, Plan 5647

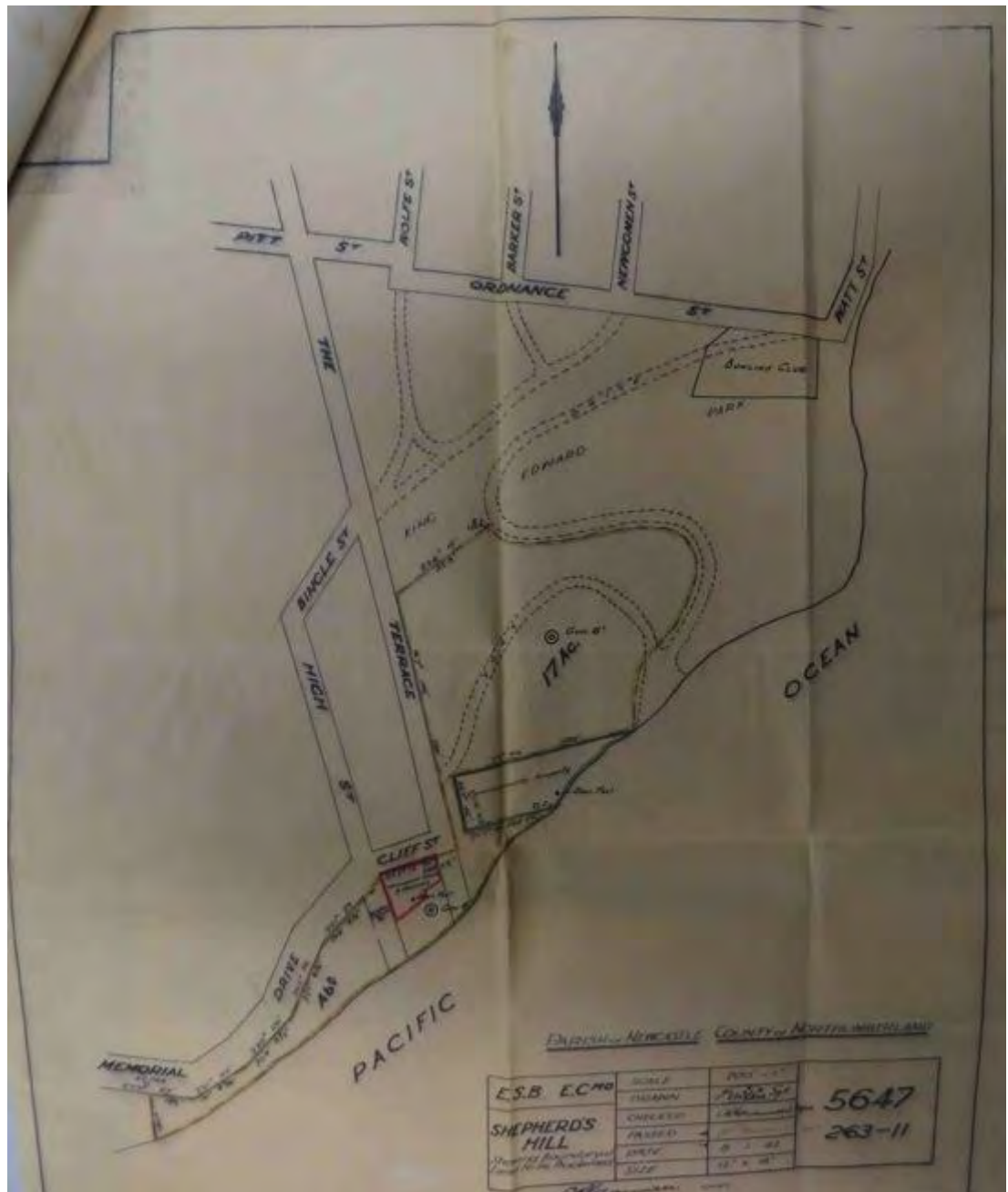


Figure 144: The survey plan of 8 January 1942 showing the 17 acres to be compulsorily acquired for defence purposes. (Source: NAA, SP857/3, PC607, Plan 5647)

The pressing urgency of these preparations was clarified by Operational Order Number 1 of the 20 Garrison Battalion stationed at 41 The Terrace dated 13 January 1942. It commenced by outlining that British possessions already captured by the Japanese included Hong Kong, the Gilbert Islands, oil installations in Sarawak, tin producing centres in Malaya, and Japanese forces were threatening Singapore. The United States possessions of Wake and Guam Islands had been occupied. The Philippines had been invaded and Manila had been captured. Dutch possessions at Kuching, Borneo, Medan and Sumatra were being attacked. The Battalion was tasked with close defence of fixed defences at Shepherd's Hill, Fort Scratchley, Fort Wallace and Tomaree. The Shepherd's Hill Company area No 1 included



Shepherds Hill, Memorial Drive to Kitchener Parade, Brook Street to Queen Street, and Ordnance Street to the coast.<sup>171</sup>

The 17 acres shown on the survey of 8 January 1942 including 1, 3, Cliff Street, 37 High Street and the adjoining Crown and Council lands were formally acquired for the Coast Battery on 20 May 1942, though physical occupation had already occurred.<sup>172</sup> A plan of an additional area to be acquired for the Park Battery was completed on 30 April 1942.<sup>173</sup> That additional area was officially acquired by requisition on 13 June 1942 (Figure 145).<sup>174</sup>



Figure 145: Plan of April 1942 showing the additional area to be acquired for defence. The area around the original battery was outlined in blue and the area already proclaimed was outlined in black. The red area defined the whole 'Park Battery'. (Source: NAA, SP857/3, PC607, Plan 6034)

<sup>171</sup> AWM 54, 243/6/67, Operational Order 1

<sup>172</sup> NAA, SP857/3, PC607

<sup>173</sup> NAA, SP857/3, PC607, Plan 6034

<sup>174</sup> NAA, SP857/3, PC607

Instructions for the defence of 'Shepherds Hill Battery Area' were issued in 1942 with a plan. The defence plan showed the sites of No 1 and No 2 Guns plus two light machine guns (LMG) in defensive roles (Figure 146).<sup>175</sup>



Figure 146: Detail of defences in 1942 near the Battery site. The map shows the position of Number 1 gun of the Park Battery No.1 searchlight and its tunnel as well as the position of No 1 LMG (light machine gun) near No.1 Gun. (Source: AWM 54, 243/6/67, Shepherds Hill map)

175 AWM 54, 243/6/67, Shepherds Hill map



Figure 147: Detail of defences in 1942 near the Battery site. The map shows the position of Number 2 gun of the Park Battery, No 2 searchlight as well as the position of Numbers 2, 3 and 4 LMG (light machine guns). (Source: AWM 54, 243/6/67, Shepherds Hill map)

On 22 March 1942, 41 The Terrace was defended by one rifle company, one medium machine gun section with two guns and one 3 inch mortar detachment armed with one mortar. Their role was to protect the Fire Command Post and the Park Battery. In case of attack, all artillery, engineer and other personnel not required to operate the battery would report to the 'old gun emplacement' at 41 The Terrace for operational deployment.<sup>176</sup> A plan

<sup>176</sup> NAA, SP553/1, 18







Figure 149: Enlargement of the plan showing the Close Protection Area at Shepherds Hill to defend the 6 inch guns and the BOP. (Source: NAA, SP553/1, 18)

The Close Protection Area map showed the areas allotted to each section (10 men each) of the Rifle Company guarding 41 The Terrace. Trenches and individual 'foxholes' appear to be indicated along with sightlines for defensive fire. A 3 inch mortar section has also been assigned for defence and they were shown located west of High Street and at the north-west corner of King Edward Park (M 3"). The ammunition store was sited south of the sunken garden.<sup>178</sup> A medium machine gun section had been assigned for defence, but no locations are indicated on the map. However, the plan in AWM 54 showed the positions of light machine guns and their arcs of fire (See Figure 146 and Figure 147).<sup>179</sup>

In order to provide additional close protection for Newcastle and since there were no additional personnel, the Colonel of General Staff, NSW Line of Communication ordered on 13 July 1942 that one rifle platoon would be detached from the rifle company at 'Shepherds Hill' to YACAABA. A plan of the current defence staff dated 17 June 1942, showed that the following personnel from the 20th Australian Garrison Battalion was stationed at 'Shepherds Hill' as the Close Protection Group – one rifle company, one machine gun section and one 3 inch mortar detachment.<sup>180</sup>

A contract for the erection of two sleeping huts to serve the Park Battery was let to Elliott and Beck, Forest Road Newcastle on 28 September 1942. The works had to be complete by 23 November 1942. They were sited on the north side of Cliff Street (Figure 150).<sup>181</sup>

<sup>178</sup> NAA, SP553/1, 18

<sup>179</sup> AWM 54, 243/6/67, Shepherds Hill map

<sup>180</sup> NAA, SP1048/7, S9/5/96 Close protection, Newcastle fixed defences, 1942

<sup>181</sup> NAA, SP459/1, 420/1/1902; SP155/1, DEF32123F

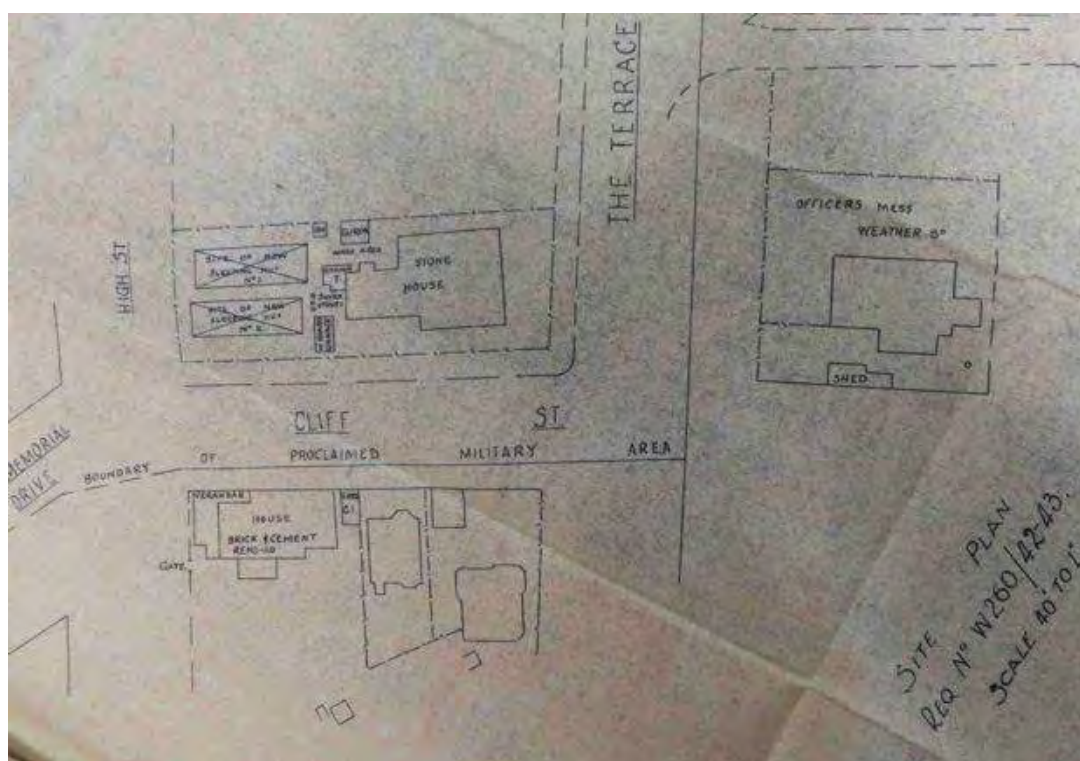


Figure 150: Part of the plan with the Specification of September 1942 for the sleeping huts to be built on the north side of Cliff Street. Note the cottage is shown as the 'Officer's Mess'. Also note the other buildings on Cliff Street used by the military. (Source: NAA, SP155/1, DEF32123F)

Japanese advances were halted when a Japanese fleet retreated after the Battle of the Coral Sea in early May 1942, ensuring that the sea lanes between Australia and the United States remained open. By 6 September 1942, Australian troops had defeated Japanese forces landing at Milne Bay, inflicting a significant defeat on Japanese land forces. Japanese midget submarines slipped into Sydney Harbour on 31 May 1942 but only managed to sink a ferry acting as a depot ship. Newcastle and Sydney were shelled on 8 June 1942. Shore batteries at Fort Scratchley returned fire under the direction of the FOPs including Shepherds Hill.

Nevertheless, the halting of Japanese forces on land and sea reduced the immediate threat to Australia. On 28 September 1942, Operational Instruction No 13 for 20 Garrison Battalion was issued. The unit was to cease operations as close protection troops around 41 The Terrace. The medium machine guns were to be returned to headquarters. Anti-sabotage duties would continue.<sup>182</sup>

On 7 October 1942, the Naval Board proposed to replace male personnel with WRANS at Newcastle. Moves commenced to obtain suitable accommodation for them.<sup>183</sup> The Naval Officer in Command, Newcastle, suggested on 22 October 1942 that a suitable house should be requisitioned in The Terrace since there was no room for additional buildings at the Port War Signal Station unless the Army also employed females at 41 The Terrace. An additional concern, which was prevalent in all World War II military files relating to the deployment of female personnel in mainland bases was that there was no way of providing sanitary conveniences inside the grounds.<sup>184</sup>

<sup>182</sup> AWM 54, 243/6/67, Operational Instruction 13

<sup>183</sup> NAA, MP150/1, 569/224/99, Letter 5334

<sup>184</sup> NAA, MP150/1, 569/224/99, Letter 622/203/1170; See World Wars I and II: Survey of buildings, sites and cultural landscapes in NSW Robertson and Hindmarsh Pty Ltd, Noni Boyd, Terry Kass and Scott Robertson, June 2006, Volume 2, p 181



As part of the investigations regarding accommodation, on 23 February 1943 Lt Col Dobson reported that the cottage at 41 The Terrace was built about 50 years ago. It was used as quarters for army personnel until April 1942 when it became the officers' mess. It was currently being used as sleeping quarters for two field officers and as a mess for 13 officers, housed in nearby huts and houses.<sup>185</sup> A sketch of the site for proposed WRANS accommodation, within 41 The Terrace was prepared on 4 June 1943 (Figure 151).

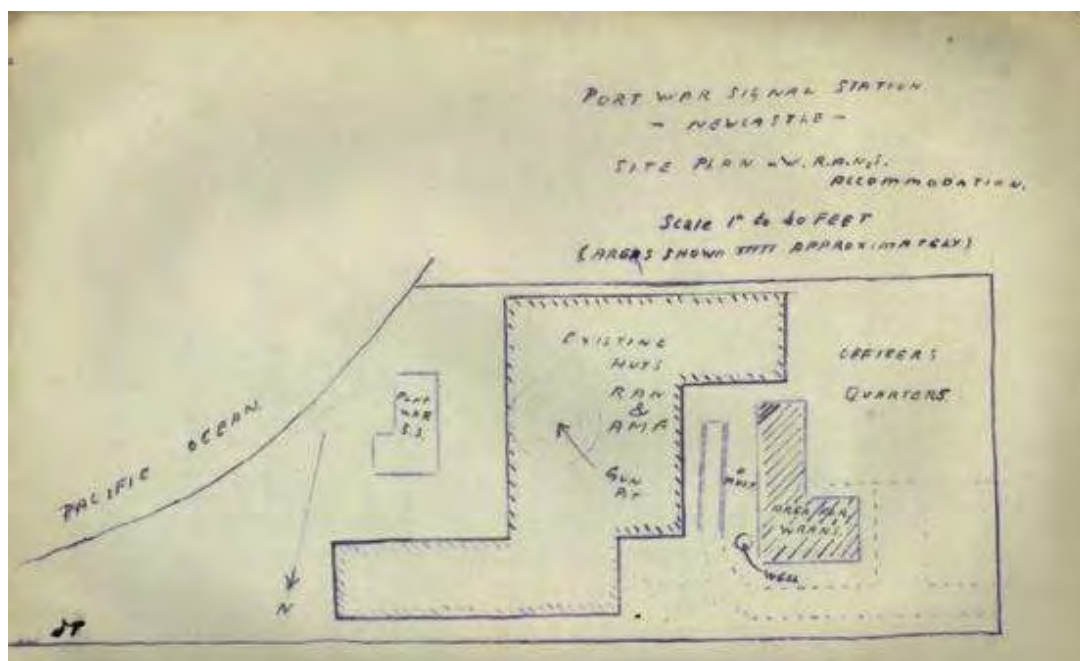


Figure 151: Sketch of the proposed site for the WRANS accommodation. Note that the north point is at the bottom of the image. Source: NAA, MP150/1, 569/224/99

The WRANS to be posted to 41 The Terrace were involved in 'watch-keeping' duties. However, on 29 September 1943, H W Phillips for E R Bradshaw, Deputy Director-General of Allied Works noted that any proposal to house WRANS at 41 The Terrace was difficult due to the constricted nature of the site.<sup>186</sup>

By June 1944, the situation was resolved. The Rear Admiral, Sydney, reported on 23 June 1944 that Colonel Dobson, Newcastle military commandant, had communicated that Australian Women's Army service personnel had been posted to the Port War Signal Station. They would be accommodated and fed at the 'Brown House' [in Cliff Street]. The buildings currently being used by Navy officers and personnel would not be needed by the Army and were available for the WRANS to be employed at the Port War Signal Station. With some slight alterations, those buildings would provide dormitory, recreation room, dining room, galley and 'the usual offices for them' [i.e. toilet facilities for the WRANS]. The remaining [male] Naval ratings could be separately accommodated and fed. Accommodation for three officers would need to be built. 'Space for the small structure required is available near the entrance gate'.<sup>187</sup> By 23 December 1944, the Army was accommodating WRANS on the Port War Signal Station site.<sup>188</sup>

As active fighting moved north away from Australia, the issue of disposing of the defence facilities around the battery arose. The Minutes of a special meeting of 11 March 1944 regarding hired property at 41 The Terrace reported on holdings in the area. There was one gun in the Park, and another with its magazine adjoining properties in Cliff Street, plus an

<sup>185</sup> NAA, MP150/1, 569/224/99, Letter PWD.EPH

<sup>186</sup> NAA, MP150/1, 569/224/99, Letter 43/6554

<sup>187</sup> NAA, MP150/1, 569/224/99, Letter 8082

<sup>188</sup> NAA, MP150/1, 569/224/99, Letter 622/203/1206

Observation Post on Lot 77. A proposal that had been put forward to acquire the properties involved, at a total cost of £6,950, was rejected.<sup>189</sup>

A significant plan by 2 Australian Chief Engineer (Works) of 41 The Terrace dated 14 March 1944 showing the 'Alterations & Additions For A W A S Army and Navy' [AWAS was the Australian Women's Army Service] provided considerable detail about the site. The plan showed the buildings on site plus their current uses. A Table on the plan detailed building occupiers and building functions. These included facilities for the WRANS [Women's Royal Australian Naval Service].<sup>190</sup> This plan also confirms that during World War II 41 The Terrace was occupied by Navy personnel, manning the Port War Signal Station, Army personnel in the Battery Observation Post, and Royal Australian Air Force personnel who operated the radio communication with aircraft. The addition of Australian Women's Army Service and Women's Royal Australian Naval Service personnel adds another layer to the intensity of military use and occupation of this site during World War II (Figure 152 and Figure 153).

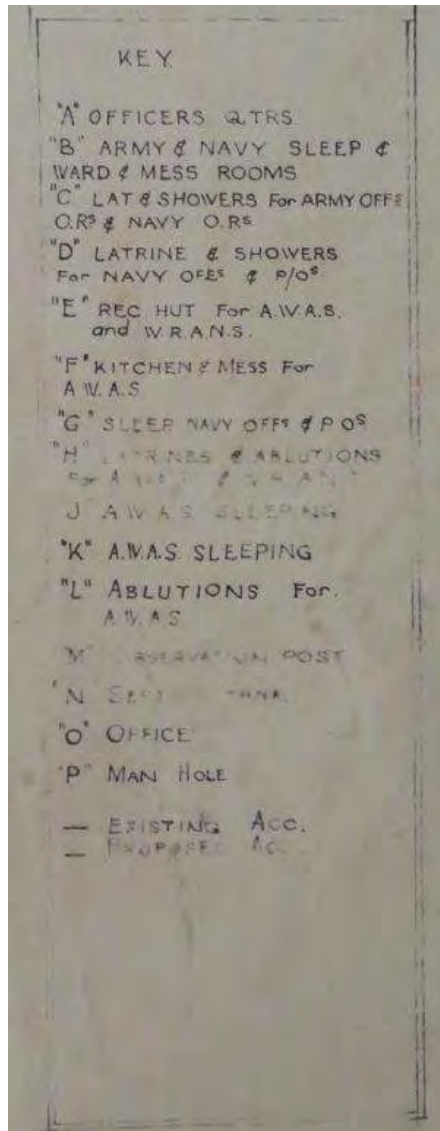


Figure 152: The key to the following plan showing the position of the buildings at Shepherds Hill plus new buildings to be erected identified the occupiers of and purposes of the buildings on the site. (Source: NAA, SP553/1, 125)

<sup>189</sup> NAA, SP857/3, PC607

<sup>190</sup> NAA, SP553/1, 125



Figure 153: The complete plan showing the position of the buildings at Shepherds Hill plus new buildings to be erected. (Source: NAA, SP553/1, 125)





Figure 154: This enlargement of the plan showing the position of the buildings at Shepherd's Hill plus new buildings to be erected provides clearer detail of the buildings. (Source: NAA, SP553/1, 125)

By August 1944, coast artillery batteries in the NSW included the following: <sup>191</sup>

Newcastle Group	
Park Battery	2 x 6" Mk VII
Scratchley Battery	2 x 6" Mk VII; One 6 pdr 10 cwt
Wallace Battery	2 x 9.2" Mk X
Tomaree Battery	2 x 6" Mk VII
Sydney Group	
North Battery	2 x 9.2" Mk X
Banks Battery	2 x 9.2" Mk X
Malabar Battery	2 x 6" Mk XII
Signal Battery	2 x 6" Mk XI
Hornby Battery	2 x 6" Mk VII
Middle Battery	2 x 6" Mk VII
West Battery	2 x 4.7" Mk IV
Casemate Battery	2 x 6 pdr 10 cwt
Shelley Battery	2 x 12 pdr
Henry Battery	2 x 18 pdr Mk IV
AMTB Sections	2 x 3 pdr
Kembla Group	
Breakwater Battery	2 x 6" Mk XI
Iloura Battery	2 x 6" Mk XI
Drummond Battery	2 x 9.2" Mk XV
AMTB Section	2 x 155mm

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<sup>191</sup> D Horner, *The Gunners*, p 390

#### 4.2.11 1945 and Beyond

Post war disposal of land resumed for defence facilities in the vicinity of the study area, mainly related to private property. King Edward Park was returned to the Newcastle City Council and works to ameliorate defence works so it could be returned to its previous state proceeded. Similar works were undertaken on private properties. In November 1945, the tunnel under lots 51, 52 and 53, Memorial Drive, associated with Shepherds Hill (plan 527) were inspected to restore the property through which the tunnel ran. A significant question was if buildings erected on the land would be endangered if the entrance were sealed. Proposed works included the demolition of the building and the removal of spoil from lots 53 and 54, the permanent closure of the tunnel, closing the shaft and covering it with a reinforced concrete slab below ground level and the removal of the concrete engine bed.<sup>192</sup>

Between August 1945 and 1948, Colonel Percy W Dobson was believed to have occupied the cottage.<sup>193</sup> As late as 1946, he was shown as occupying 'Military Quarters, Terrace Street, Newcastle'.<sup>194</sup> Percy Walter Dobson, military officer, and his wife Dorothy were listed at that address in the 1946 Electoral Roll.<sup>195</sup>

The National Archives of Australia holds a file with the date range 1958 to 1983 relating to the disposal of the Shepherds Hill Defence Group Military Installations. However, National Archives staff could not locate this file, since it appears to have been not returned to the correct location when last used. A search for the file is continuing.<sup>196</sup>

41 The Terrace became the headquarters for 11 Cadet Battalion. In October 1951, it was reported that the 'former radar station' at 41 The Terrace would be renovated for military activities ready to become the headquarters for 11 Cadet Battalion. The radar equipment had been removed after the war. Renovation works were expected to commence on Monday, 15 October 1951.<sup>197</sup> After painting and interior renovations to the site, headquarters moved to 41 The Terrace late in November 1951.<sup>198</sup> 41 The Terrace was also the depot that issued uniforms and equipment to cadets from the high schools of the Hunter district.<sup>199</sup> In March 1954, Captain G K Dellow was the commanding officer.<sup>200</sup>

Later occupiers of the cottage were reported to have included Major Jack L Green, Officer Commanding, 11 Cadet Battalion to April 1961.<sup>201</sup> A plan of the cottage dated 30 September 1958 showed it as the married quarters for 11 Cadet Battalion.<sup>202</sup>

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<sup>192</sup> NAA, SP1048/7, S38/2/243 Tunnel – Shepherds Hill – Newcastle 1945-6

<sup>193</sup> Lt-Col R S Mort, *The Story of Shepherd's Hill*, Newcastle City Council, Newcastle, 1988

<sup>194</sup> NAA, B4717, Percy Walter Dobson, VP16088, NP9890, 1912-51

<sup>195</sup> Electoral Roll, 1946, Newcastle, Newcastle Subdivision, Nos 2689-2690

<sup>196</sup> NAA, C424, 1975/1790

<sup>197</sup> Newcastle Morning Herald, 12 Oct 1951, p 5

<sup>198</sup> Newcastle Morning Herald, 30 Nov 1951, p 5

<sup>199</sup> Newcastle Morning Herald, 28 March 1952, p 5

<sup>200</sup> Newcastle Morning Herald, 30 May 1952, p 5; 5 March 1954, p 2

<sup>201</sup> Lt-Col R S Mort, *The Story of Shepherd's Hill*, Newcastle City Council, Newcastle, 1988

<sup>202</sup> Gardner Browne, Planning Consultant, Shepherds Hill Cottage and Surrounds – Conservation Study, For Newcastle City Council, 1984, Figure 3



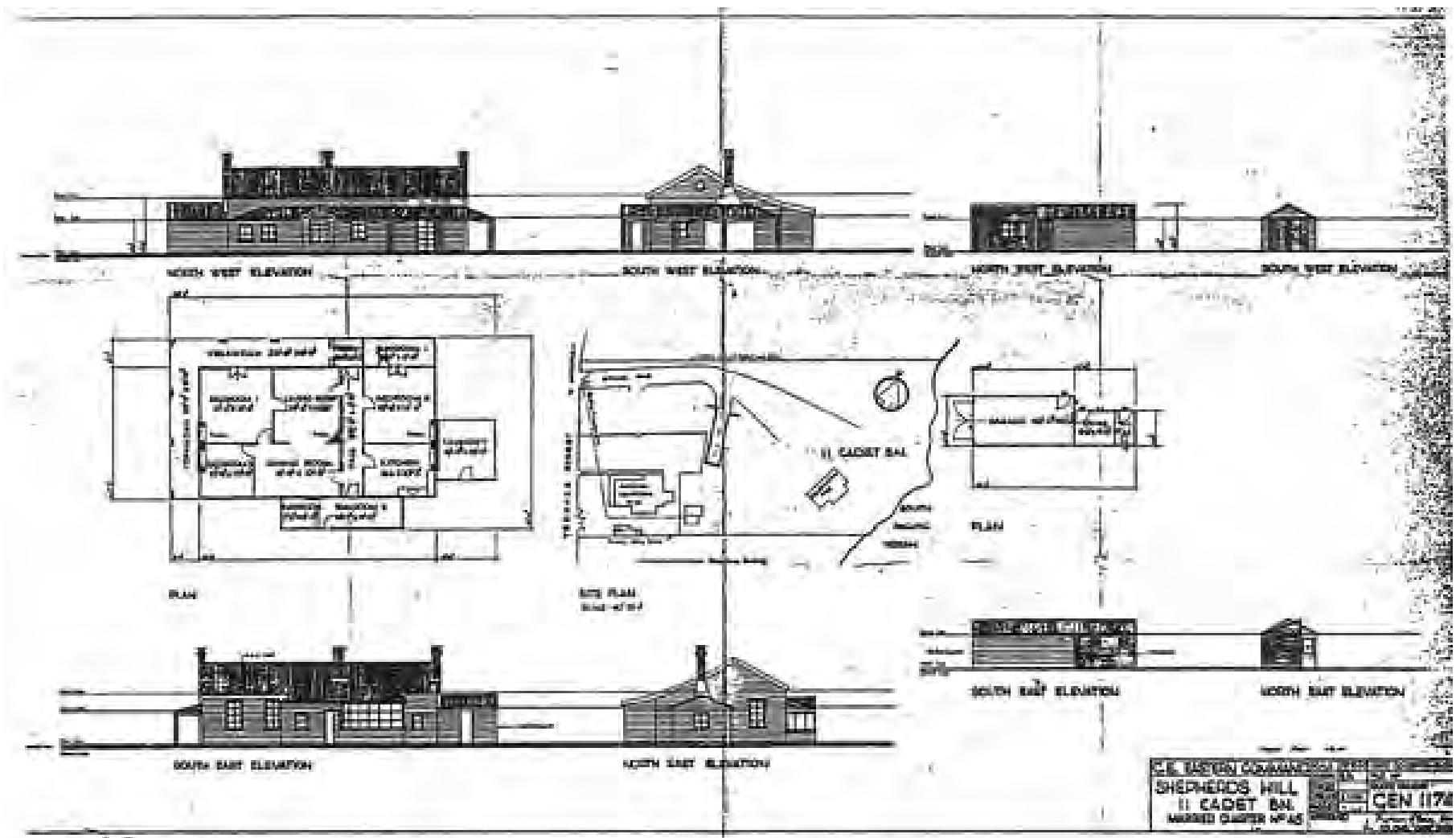


Figure 155: The plan of 1958 showing the cottage as occupied by the Commanding Officer, 11 Cadet Battalion. (Source: Gardner Browne, Planning Consultant, Shepherds Hill Cottage and Surrounds – Conservation Study, For Newcastle City Council, 1984, Figure 3)

Warrant Officer Jack Wilkinson from Medowie was attached to the RAAF, Williamtown after his return from Vietnam and occupied the cottage to 1970. From July 1970 to February 1975, Warrant Officer, First Class F B Graham, occupied the cottage. From February 1975 to November 1981, Captain D A Christie followed by Major J Sullivan occupied the cottage.<sup>203</sup>

In 1984, Newcastle City Council received a National Estate Heritage grant for a Conservation Study of the site plus restoration work. The firm of Gardner Browne completed that study.<sup>204</sup>

Newcastle Council took possession of cottage and used it for an Artist-in-Residence Scheme. In February 1988, Newcastle Council workers cleared rubbish and vegetation, etc.

<sup>205</sup> Both serving and retired artillery personnel helped clean up the site in November 1988.<sup>206</sup>

On 17 March 1989, an area measuring 6,715 square metres at Shepherds Hill, lot 3116 of DP 755247, was gazetted as a reserve for Public Recreation and Community Purposes at Shepherds Hill.<sup>207</sup> The Council of the City of Newcastle was gazetted as trustees the same day.<sup>208</sup>

From 1988 to 1992, the cottage was leased to G Steinbeck. A Development Application to use the cottage as a restaurant or tearoom was rejected on 22 June 1993.<sup>209</sup> The Royal Volunteer Coastal Patrol leased the cottage from 2000. The service was later renamed Marine Rescue New South Wales. A ten year lease to use part of the cottage was signed in 2009 with the Royal Volunteer Coastal Patrol later renamed Marine Rescue New South Wales. In April 2015, a heavy storm damaged the cottage and Marine Rescue moved to a new site.<sup>210</sup>

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<sup>203</sup> Lt-Col R S Mort, *The Story of Shepherd's Hill*, Newcastle City Council, Newcastle, 1988

<sup>204</sup> Gardner Browne, Planning Consultant, Shepherds Hill Cottage and Surrounds – Conservation Study, For Newcastle City Council, 1984, p 7

<sup>205</sup> Lt-Col R S Mort, *The Story of Shepherd's Hill*, Newcastle City Council, Newcastle, 1988

<sup>206</sup> Newcastle Herald, 14 November 1988

<sup>207</sup> NSWGG, 17 March 1989 p 1467

<sup>208</sup> NSWGG, 17 March 1989 p 1465

<sup>209</sup> Newcastle City Council, DA 659/92

<sup>210</sup> <http://www.marinerescuensw.com.au/news-a-media/latest-news?view=news&id=890>, Accessed 29 August 2017

### 4.3 Summary Timeline

The following table summarises the history of the Shepherds Hill Defence Ground Military Installations from the history included in the sections above.

Date	Event
Prior to European settlement	The coastal headland would have supported coastal health and grassland vegetation communities. The study area, particularly 41 The Terrace, was used by the local Awabakal language group as a tool making site. The site was originally known as 'Khanterin'.
September 1797	Lieutenant Shortland charted the Hunter River, naming it after Governor John Hunter.
1801	Lieutenant Colonel Paterson described the soil within the study area as a 'light black mould above a foot and a half deep, after which is the stratum of stone and lay over the coal'. He also noted the hills of the study area were, "so much alike to what I have seen sheep feeding on in England, that I have named them Sheep Pasture Hill".
1830s	Due to the clearing of vegetation from the sand dunes behind Newcastle beach, by the late 1930s streets and houses were being buried by shifting sand. Vegetation planting schemes were implemented to stabilise the dunes.
29 January 1839	Next reference to the hill appeared in an article in the Sydney Monitor. It reported that an assigned convict of the Australian Agricultural Company had assaulted three females at 'Shepherds Hill' (41 The Terrace). It was a popular recreational destination at the time.
Mid-19 century	A copper smelter operated on the Shepherds Hill site (41 the Terrace) however, its exact location is unknown.
1850s	Official plan produced for the 40 acre Reserve for Public Recreation, later known as King Edward Park. 41 The Terrace is indicated in the plan as included in the Reserve for Public Recreation (Figure 122).
1851	An obelisk was constructed as a landmark for shipping at 41 The Terrace.
1853	Plan shows seashore having been planted to remediate the destabilisation of the sand dunes.
1860s	41 The Terrace was regularly used by colonial volunteers for shooting matches.
1861	Governor Sir John Young visited Newcastle and noted that he particularly enjoyed the view from 'the hill'.
1862	The shooting range at 41 The Terrace was described as the 'private butts' of the Newcastle Volunteer Rifles. The Naval Brigade also used the butts.
16 July 1863	The reserve is officially gazetted as part of a wholesale proclamation of reserves.
10 February 1866	Notice issued to Mariners that as part of the improvements to the leading lights and beacons at Newcastle, the two obelisks situated at 41 The Terrace would be removed.
February 1885	Admiral Tryon, Commander of the Australian Naval Squadron, recommended that a second fort be established to guard the approaches of Newcastle Harbour 'somewhere in the neighbourhood of Shepherds Hill' to bolster the defences of Fort Scratchley.
March 1887	Major General John Richardson, commander of the NSW military forces, reported that two 8-inch breech loading guns had arrived and were to be sent to Newcastle. One was to be installed on 'Shepherds Hill' (41 The Terrace).



20 May 1889	Survey of 'Shepherds Hill' defence reserve (41 The Terrace) was undertaken by Staff Surveyor Francis J Gregson. The plan was later cancelled, and a smaller area designated. (Figure 126)
11 March 1890	Tenders were called to erect a 'Battery at Shepherds Hill, Newcastle'. The tender specifications included timber, sashes and doors, showing that the cottage appears to have been included in the work. The works also included construction of an outhouse and paving works around the cottage.
25 March 1890	Colonel F R de Wolski, Director of Military Works, recommended James Russell and Co as the successful tenderers. The minister approved it the following day.
31 July 1890	Staff Surveyor Francis J Gregson completed a new survey for a smaller site at 41 The Terrace. This plan was later cancelled.
1891	Colonel F R de Wolski, Director of Military Works, inspected the guns including the one at 'Shepherds Hill' (41 The Terrace).
10 March 1894	An area of 1 acre 2 roods 23 perches was officially resumed from the recreational area and gazetted for defence purposes.
12 May 1894	The gun at 'Shepherds Hill' (41 The Terrace) was first fired during a training exercise under the command of Lieutenant W Lyne.
1903	Laura Wollett, wife of Office James Wollett, officially identified as residing at the 'Fort Shephard's Hill'. Official records identifying Officer Woollett as the resident of the cottage are limited, however, it is understood he resided there until the early years of World War I.
26 October 1903	NSW Government Committee valued the land of 'Shepherds Hill' (41 the Terrace) as £1,750.
15 May 1906	Subsidence of land at 41 The Terrace due to the collapse of part of the Australian Agricultural Company's Sea pit mine. The concrete foundations cracked, throwing the gun out of position by several inches. It is unclear when the gun ceased to be operation, but it is doubtful if it could have fired after this event.
1907	Edgeworth David identifies Nobbys Tuff as 'Nobbys Chert', which included the subject site.
January 1910	Field Marshall Lord Kitchener, on a visit to Newcastle, inspected the dismantled gun.
18 June 1910	A Sydney Morning Herald article was highly critical of the state of the coastal defences of NSW. Although 41 The Terrace had the 'best gun' in Newcastle, it could not be fired due to 'underground disturbances' that had occurred twice.
24 December 1913	Joseph Head of Seven Hill was contracted to carry out improvements and painting works at Fort Scratchley and 'Shepherds Hill' (41 The Terrace). The work was completed by 4 March 1914.
20 July 1915	Director of the Naval Reserves suggested that 'Shepherds Hill' (41 The Terrace) was a better place for the Port War Signal Station. The site was under military ownership at the time and the battery abandoned due to the damage caused by the land creep.
3 March 1916	Department of Defence informed the Department of Home Affairs on 3 March 1916 that 'Shepherds Hill' (41 The Terrace) would not be handed to the navy, however, they were allowed to use the site for a Port War Signal station. The cottage was to be retained for use by the Master Gunner.
April 1916	C A Sussmilch, Principal of the Newcastle Technological College, was reported to have found an Aboriginal tool making site at 41 The Terrace, with shaped and partially worked flints. This is the first documented record of the site being use das such. No information was provided above the precise location of the site.

September 1916	41 The Terrace was handed over to the Navy and became the Port War Signal Station along with its buildings. The quarters remained in the hands of the Army.
2 November 1916	The Navy occupied the quarters, contrary to the Army's ownership.
29 January 1917	The Department of Navy issued a requisition for the quarters for painting internally and externally, glazing windows, repairing window sills, repairing plumbing and repairing the fence. A new occupant was to move in.
29 June 1917	Inspection report from Commodore F Tickell, Director of Naval Auxiliary Services, report the quarters were well built but badly needing repairs.
6 July 1917	Repair works approved for the quarters.
19 September 1917	A fierce gale caused significant damage to the cottage resulting in a portion of the roof blowing west.
17 October 1917	Repairs were nearing completion.
15 November 1917	A navy memo notes that sleeping accommodation at the Port War Signal Station was the gun pit, which was considered hazardous.
29 June 1918	A requisition for alterations to the Port War Signal Station was issued. The work was in 'abeyance' due to other progressing work.
9 October 1918	The work was approved.
1919	A memo noted that an inspection of the quarters had revealed the roof was 'completely corroded through and beyond repair'. A requisition dated 12 May 1919 was subsequently issued for various works.
1 May 1919	A contract was signed with H Hutcherson and Son to construct new men's quarters, WCs, shower baths etc at the 'Shepherds Hill Port War Signal Station; for the Navy.
1920	The gun that was once at 41 The Terrace was sold to the steelworks as scrap metal.
3 January 1920	The Commonwealth Works Department decided to officially hand over the quarters to the Navy. It was described at the time as consisting of a wooden residence (dining room, sitting room, two bedrooms, spare room, kitchen, open veranda around two sides, glassed veranda at back, laundry, brick WC and bathroom). The site was also noted as being fenced.
16 March 1920	While the site had been handed over to the Navy, the cottage was used as quarters of the Master Gunner of the Royal Australian Garrison Artillery.
27 July 1920	George Oakeshott, Works Director for NSW, reported that the Acting District Inspector had described the property as having an old gun pit, shell recesses, shell room, general store, two DRF stations, quarters and fences of picket, paling and wire.
15 September 1920	The cottage is described as consisting of wood with galvanised iron roof, five large rooms, kitchen with pine lined 10 ft walls, galvanised iron laundry, brick WC with galvanised iron roof, wood fuel shed with galvanised iron roof. Mention of paths and brick paving is also mentioned.
12 September 1923	A memo from the Director of Works reported the site had originally been a battery site, but land creep made it unsafe for firing the gun.
30 April 1928	William James, Commanding Officer, Number 1 Heavy Brigade, Royal Australian Artillery, recommended that the disused battery at 41 The Terrace be used for the site of a new Fire Control Post, in front of the gun emplacement.

1934	Lieutenant-Colonel V Sturdee, Director of Military Operations, in a report on Coast defences identified Shepherds Hill, Moyra Head and Redhead as likely Fire Observation Posts to serve the coast defences of Newcastle.
19 and 20 September 1935	41 The Terrace is identified as a suitable Fire Observation Post and Fire Control Post by Majors P W Dobson MC, J S Whitelaw and D L Davies, MC, of the Australian Staff Corps, who carried out various inspections of Newcastle's defence sites.
October 1935	An estimate of costs for defence improvements at Newcastle signed by Major-General Lavarack included in addition to the cost of purchasing the heavy guns, the sum of £10,000 that should be added to the 1936-37 estimates for 'Fire Command Stations, Communications, D E Ls'. In addition, works for the Fire Command Station and workshops would cost £23,000.
12 October 1937	The District Naval Commander, NSW, RAN, sought information from the New South Wales army command regarding minimum essential requirements in case war broke out. These requirements included accommodation for the crew (one Officer, two Chief Petty Officers, 17 ratings, accommodation 8 ft square for a wireless telephone set and accommodation 8 ft square for stores).
13 October 1939	A specification was issued for tenders for the erection of a Fire Observation Post at 41 The Terrace. It specified that the site was covered with sandy loam soil and was grassed but otherwise clear of vegetation.
8 November 1939	The tender of C Hutcherson was accepted. Contract due for completion on 31 January 1940.
18 October 1939	F E Cavaye, Commander, Royal Navy, Naval officer in charge, Newcastle, reported that a proposal to move the Port War Signal Station from the newly established Port War Signal Station for naval ships at Nobbys to 'Shepherds Hill' (41 The Terrace) was not a practical suggestion
29 December 1939	a Specification was issued for the erection of camp buildings including mess huts, officers' and men's quarters, kitchen, ablution block and latrines
14 March 1940	A recommendation that transfer of the Port War Signal Station to 41 The Terrace be cancelled and all buildings be handed to the army was formulated.
29 March 1940	Official Department of Navy minute paper confirmed that 41 The Terrace had significant advantages, including a higher elevation, observation of a larger area than Nobbys, incorporation within a designed building, accommodation was already available, there was a specially built wireless room, it had direct communication with the Battery Commander in the same building, good visual communication and location within concrete building 'affording a good measure of protection'.
8 April 1940	The Naval Board overruled all objections and ordered that 41 The Terrace would become the Port War Signal Station for Newcastle. Construction begins shortly after of a BOP with a DRF.
19 August 1940	A Specification for Minor Alterations and Repairs to a building at 41 The Terrace was issued for the Port War Signal Station including welding steel to the entrance door, repairs to the glass shutter frames, installation of two hand type car windscreen wipers and various other works.
1941	Radar installed at 41 The Terrace.
1942	An area west and south-west of the original Shepherds Hill battery was proclaimed for military purposes to become the Park Battery with No 1 gun and No 1 searchlight and engine house. Another area north of the original Shepherds Hill Battery site within King Edward Park became the emplacement of No 2 gun. No 1 searchlight was located on the cliff face south of the reservoir accessible via a tunnel, with an engine room near its entrance in Nesca Place. The northern No



	2 searchlight was south-east of the northern entrance of King Edward Park with its engine room near the park entrance.
1942	The cottage is noted as being used as the officer's mess. At the time Lieutenant-Colonel Percy W Dobson, Commander, Newcastle Fortress Command may also have been in residence (from 1939 to early 1942)
13 January 1942	Operational Order Number 1 of the 20 Garrison Battalion stationed at 41 The Terrace. The Battalion was tasked with close defence of fixed defences at Shepherds Hill, Fort Scratchley, Fort Wallace and Tomaree.
22 March 1942	41 The Terrace was defended by one rifle company, one medium machine gun section with two guns and one 3 inch mortar detachment armed with one mortar. Their role was to protect the Fire Command Post and the Park Battery.
8 June 1942	Newcastle and Sydney were shelled by Japanese midget submarines, the shore batteries at Fort Scratchley returned fire under the direction of the FOPs including 41 The Terrace.
23 February 1943	The cottage is noted as being used as sleeping quarters for two field officers and as a mess for 13 officers, house in nearby huts and houses.
23 June 1944	Australian Women's Army service personnel had been posted to the Port War Signal Station. They would be accommodated and fed at the 'Brown House' [in Cliff Street].
November 1945	The tunnel under lots 51, 52 and 53, Memorial Drive were inspected to restore the property through which the tunnel ran. The entrance was sealed and the tunnel permanently closed, covering the shaft with reinforced concrete slab.
August 1945-1948	Colonel Percy W Dobson believed to have occupied the cottage.
October 1951	The former radar station was renovated and the radar equipment was removed.
1950s	The site is used as a depot that issued uniforms and equipment to cadets from the high schools of the Hunter district.
30 September 1958	Plan for the cottage showed it as married quarters for 11 Cadet Battalion.
July 1970 - February 1975	Warrant Officer, First Class F B Graham, occupied the cottage.
February 1975 - November 1981	Captain D A Christie followed by Major J Sullivan occupied the cottage.
1984	Newcastle City Council received a National Estate Heritage grant for a Conservation Study of the site plus restoration work. The firm of Gardner Browne completed that study.
February 1988	Newcastle Council workers cleared rubbish and vegetation, etc
November 1988	Both serving and retired artillery personnel helped clean up the site.
17 March 1989	An area measuring 6,715 square metres at 41 The Terrace, lot 3116 of DP 755247, was gazetted as a reserve for Public Recreation and Community Purposes
1988 - 1992	The cottage was leased to G Steinbeck
22 June 1993	A Development Application to use the cottage as a restaurant or tearoom was rejected.

2000	The Royal Volunteer Coastal Patrol leased the cottage. A ten year lease to use part of the cottage was signed in 2009 with the Royal Volunteer Coastal Patrol later renamed Marine Rescue New South Wales.
April 2015	A heavy storm damaged the cottage and Marine Rescue moved to a new site.
17 June 2016	41 The Terrace is assigned the name 'Khanterin' by the Geographical Name Board under its policy of dual names for geographical features when clear evidence is found of the Aboriginal name for that feature.

## 5. Analysis of the Historical and Physical Evidence

### 5.1 Introduction

The physical fabric of the site tells the story of its history. Remnants exist from each historical phase of development since the construction of the gun emplacement and cottage in 1890. A comprehensive survey of the site has been conducted where access was possible in order to complete the assessment and analysis of the physical fabric of the building. The changes to the building have been discussed in Section 4-History. This section includes a general summary of the results of the correlation of documentary and physical evidence.

In understanding the history of the site through physical evidence, documentary evidence was analysed, and compared with the surviving fabric. This process forms the basis of understanding periodic change over time and the phasing of the site.

Following a site survey and review of background information pertinent to the site, nine primary phases of construction have been identified. The results of the analysis of the historical and physical analysis, which involved non-destructive survey and observation, are presented in summary form below.

### 5.2 Key Phases of Development

The remaining physical evidence located on the sites, consisting of the cottage, Battery Observation Post, gun emplacement and tunnels, Park Battery, no.1 searchlight and bunker, tunnel and engine room and Park Battery no.1 gun and bunker, are evidence of the pattern of occupation and defence requirements of this area of Newcastle.

From the information garnered from historical resources and the assessment of the physical fabric of the Shepherds Hill Defence Group Military Installations, the following key development phases have been identified:

- **Phase 1 (Early 1800s)** - 41 The Terrace identified as 'Sheep Pasture Hill', used as a recreational spot for its views, also used as an Aboriginal tool making site (Figure 156);
- **Phase 2, Reserve for Public Recreation (1860s)** - 41 The Terrace included in the plan for King Edward Park (Figure 157);
- **Phase 3, Original construction (1890)** - Cottage, gun emplacement, tunnels and entry road (Figure 158, Figure 159 and Figure 160);
- **Phase 4, c.1906-1916** - coal shed present, brick paving to the yard and corrugated iron and picket fence. The site was also enclosed by a barbed wire fence with gates, repainting and general maintenance undertaken to the cottage (Figure 161 **Error! Reference source not found.**);
- **Phase 5, 1920s-1930s** - internal modifications to the cottage including Bedrooms 1 and 2, lounge and dining rooms. The southern sunroom and bathroom were added in the 1930s, construction of additional buildings for use of the site as the Port War Signal Station (Figure 162, Figure 163, Figure 164);

- **Phase 6, World War II (1940-1942)** - Construction of Battery Observation Post, Park Battery, no.1 gun and bunker, No.1 Searchlight, associated Tunnels and the Searchlight Engine Room (Figure 165 and Figure 166);
- **Phase 7, 1950s-1960s** - Laundry and external toilet block (Figure 167);
- **Phase 8, 1980s -1990s** - the fence surrounding the cottage was updated during this period (Figure 168);
- **Phase 9, 2000s - today** - Occupation by Marine Rescue. The cottage is damaged following the storm of April 2015, interior detailing of cottage temporarily removed during asbestos removal works (Figure 169).

## 5.3 Major Changes

Note: the following plans provide an overview of the key phases of development, as indicated in the historical and physical evidence analysed in the previous sections. It should be noted that the plans are based on evidenced sourced to date. Due to limited information available, a detailed analysis of structures at 65 Nesca Parade and 101 Memorial Drive has not been undertaken. Items highlighted in colour relate to the phase described.

### 5.3.1 Phase 1: Early 1800s

#### Built Fabric

Historical records indicate the site of 41 The Terrace was used by local Aboriginal tribes as a tool making site. The site was also used as a recreational destination and two obelisks were present by the 1850s although were removed in c.1866.

#### Landscape

Lieutenant-Colonel Paterson writes about the area indicating, "...from this to the southward for some miles the hills are covered with excellent verdure without trees, except in the valleys, and they are chiefly Banksia new, or what is commonly called the white honeysuckle, but grows much larger than that found in the neighbourhood of Sydney. Those hills are so much alike to what I have seen sheep feeding on in England, that I have named them Sheep Pasture Hill. The soil is a light black mound about a foot and a half deep, after which is the stratum of stone and clay above the coal..."<sup>211</sup>

#### Views

41 The Terrace is noted as being a large hill with extensive views of the ocean and harbour entrance, making it a popular recreational destination. The two obelisks were also installed for this reason.



Figure 156: Shepherds Hill was left of the Obelisk. (Source: Great Britain, Hydrographic Dept, Australia, East Coast, Newcastle Harbour, surveyed by Captain J L Stokes, R N, 1851, NLA, MAP British Admiralty Special Map Col/38)

<sup>211</sup> HRA, Series I, Volume 3, p 175



### **5.3.2 Phase 2: Reserve for Public Recreation (1860s)**

#### **Built Fabric**

A shooting range was present in the 1860s and is described as having 'butts'. These rifle butts have been identified in the thematic history as possibly being located with the sea behind them, as a safety precaution. Their exact location is unknown. The rifle butts were later identified (1889) as located west of the site.

No built structures have been identified as being present in the location of the Park Battery, no.1 searchlight and bunker, tunnel and engine room and Park Battery no.1 gun and bunker.

#### **Landscape**

On 16 July 1863 41 The Terrace was included in the official survey plan for a recreational reserve, later known as King Edward Park. While limited information is known about the landscaping works undertaken specifically to 41 The Terrace during this phase, it is understood that the site was used for recreational purposes (e.g. picnics and shooting matches) and was known for its view.

#### **Views**

Views gained during this period to and from the site would most likely have been similar to those achieved in the early 1800s.



Figure 157: The official survey plan of the Recreation Reserve, with the boundaries of 41 The Terrace later added to the plan. (Source: N.98.844, Crown Plan)

### 5.3.3 Phase 3: Original construction (1890)

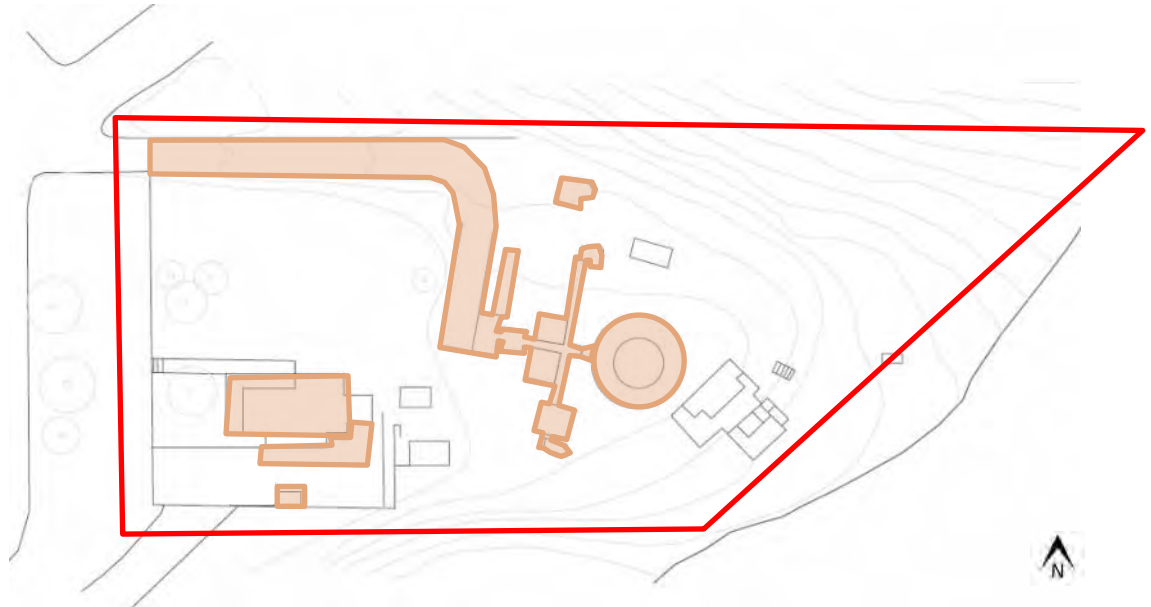


Figure 158: Plan for Shepherds Hill showing the third key phase of development (highlighted in orange), being the 1890 development of the site. Development during this period includes construction of the cottage, outhouse, brick paving, gun emplacement and associated tunnels. The road leading to the underground tunnels also dates from this period (although the asphalt to some areas is later fabric) (Source: based on the plan for Shepherds Hill in Browne, Conservation Study 1984)

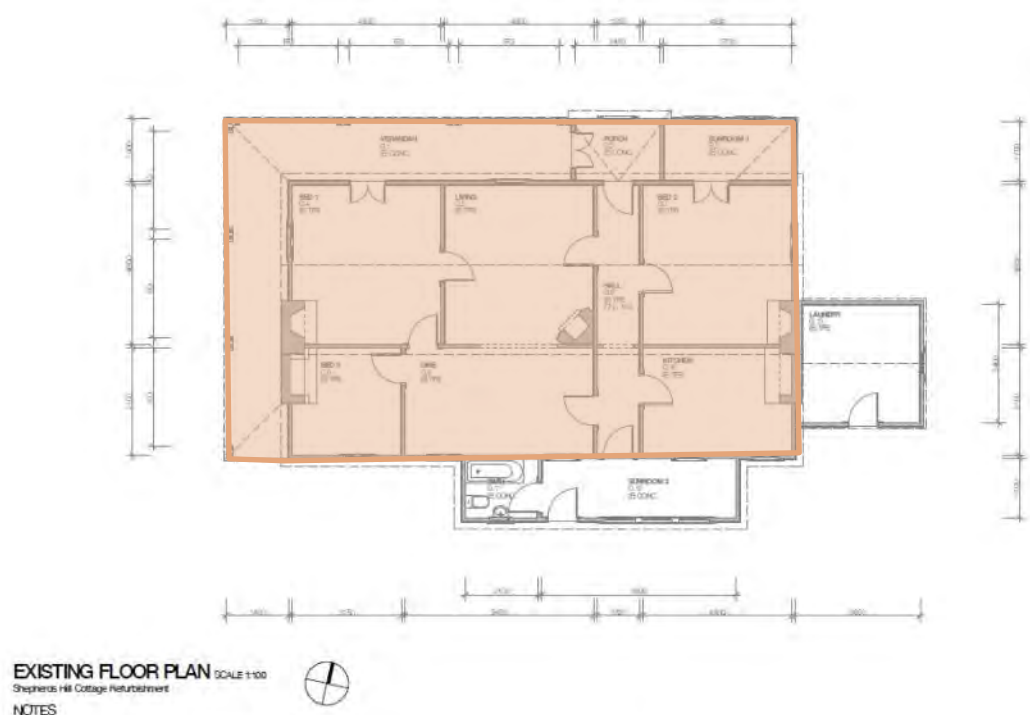


Figure 159: Existing floor plan of the cottage, showing the layout of the building and sections of the cottage that date from the 1890s, from the third period of development (highlighted in orange). Note the fireplace to the living room and north-eastern sunroom are a later addition. (Source: Curran, drawing no. A100, revision A, 2 August 2017)



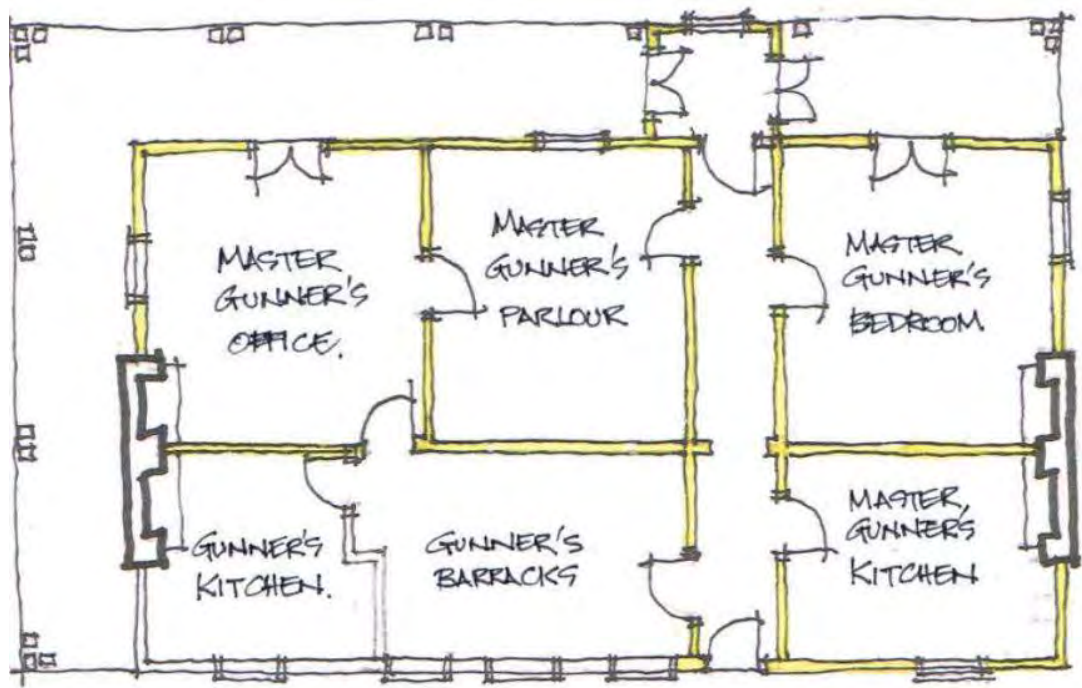


Figure 160: Interpretation of the potential original layout and use of rooms of the cottage at Shepherds Hill. (Source: Carr, John, Shepherds Hill Cottage Storm Damage Repairs SoHI Rev E, February 2017, p.8)

### Built Fabric

The cottage, outhouse, brick paving, gun emplacements and tunnels date from the 1890s with the layout of the cottage at the time including the six central rooms and a wraparound veranda to the north and west. No detailed plans or maps have been found to date showing the layout of the site during this period of time although Figure 160 provides a good indication of the potential original layout of the cottage.

According to the SoHI prepared by John Carr for restoration works to the cottage following damage caused by the April 2015 storm, the cottage interiors were originally lined with timber, especially the two northern rooms (most likely originally the Master Gunner's Parlour and Master Gunner's Bedroom). Early detailing is also present in Bedrooms 1 and 2 where skirting, architraves, dado and chair rails are present. These rooms are considered to be in the late Victorian style. The 1890s original form and fabric of the cottage is readily discernible in the veranda, turned timber posts, original section of roof and original elevations.

The exact date of removal of the disappearing gun is unknown, however, it is thought to have been removed after World War I, or at the same time as the Fort Scratchley disappearing gun. The gun pit and DRF stations were at some point filled with sand and rubble.

No built structures have been identified as being present in the location of the Park Battery, no.1 searchlight and bunker, tunnel and engine room and Park Battery no.1 gun and bunker.

### Landscape

Limited information is known about the landscaping present during this period of development. It is anticipated that the majority of the site was informally arranged with perhaps some plantings made around the cottage. However, this has not been verified through historical resources to date and the existing state of the garden has not enable identification of early plantings associated with this phase.

### Views

The historic visual links between the Shepherds Hill Group Military Installations, Fort Scratchley, Nobby's Head and the Tasman Sea were of paramount importance when 41 The Terrace was chosen as a potential defence site, as detailed in Section 4 (Figure 65).

#### 5.3.4 Phase 3: c.1906-1916

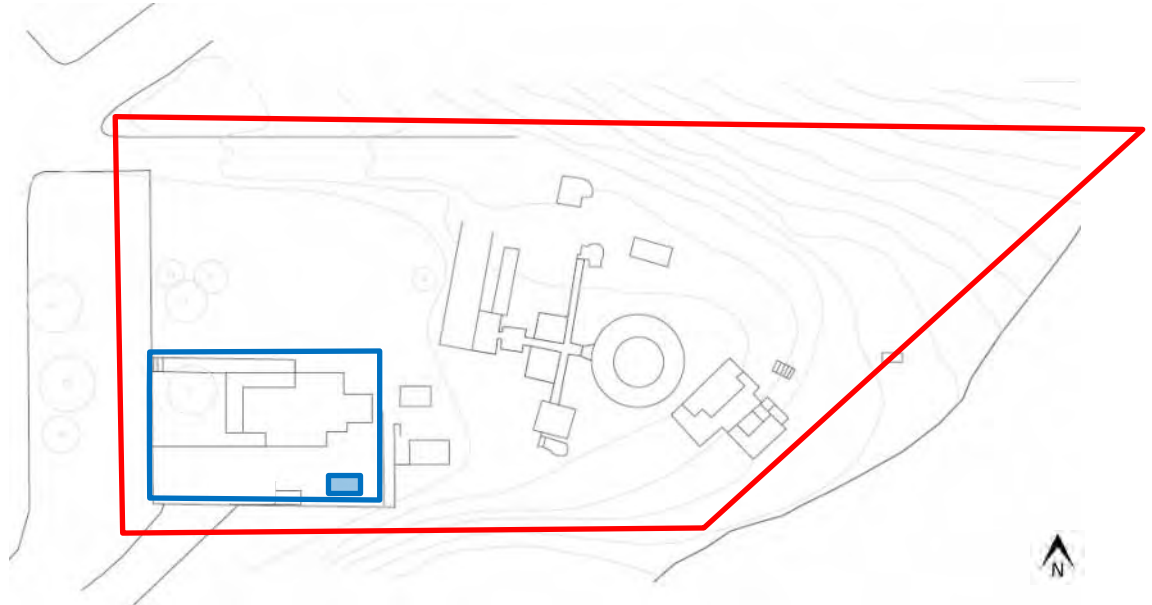


Figure 161: Plan for Shepherds Hill showing the third key phase of development, being c.1908 (in blue). By this date the site was known to have been enclosed with barbed wire fencing with gates, include a coal shed and a corrugated iron and picket fence around the cottage. Source: based on the plan for Shepherds Hill in Browne, Conservation Study 1984)

#### Built Fabric

During this phase the majority of works undertaken were primarily undertaken to the grounds of the cottage with the addition of a coal shed and a picket fence around the cottage. A barbed wire fence was also erected around the exterior of the site. This is no longer present.

In 1906 the gun pit and tunnels were damaged as a result of the subsistence of a coal mine located underground.

No built structures have been identified as being present in the location of the Park Battery, no.1 searchlight and bunker, tunnel and engine room and Park Battery no.1 gun and bunker.

#### Landscape

As with the phase above, limited information is known about the landscape present at the time. As the cottage had been present for a number of years and now included a picket fence, it is likely that the grounds were landscaped by its occupants.

#### Views

During this phase the views that had made the site a prime location for the establishment of a defence site were still evident, with only minor works occurring to the grounds of the cottage. While Newcastle was continuing to develop, this development was of a low scale and did not impact on views that were required for defence purposes.

### 5.3.5 Phase 4: 1920s-1930s

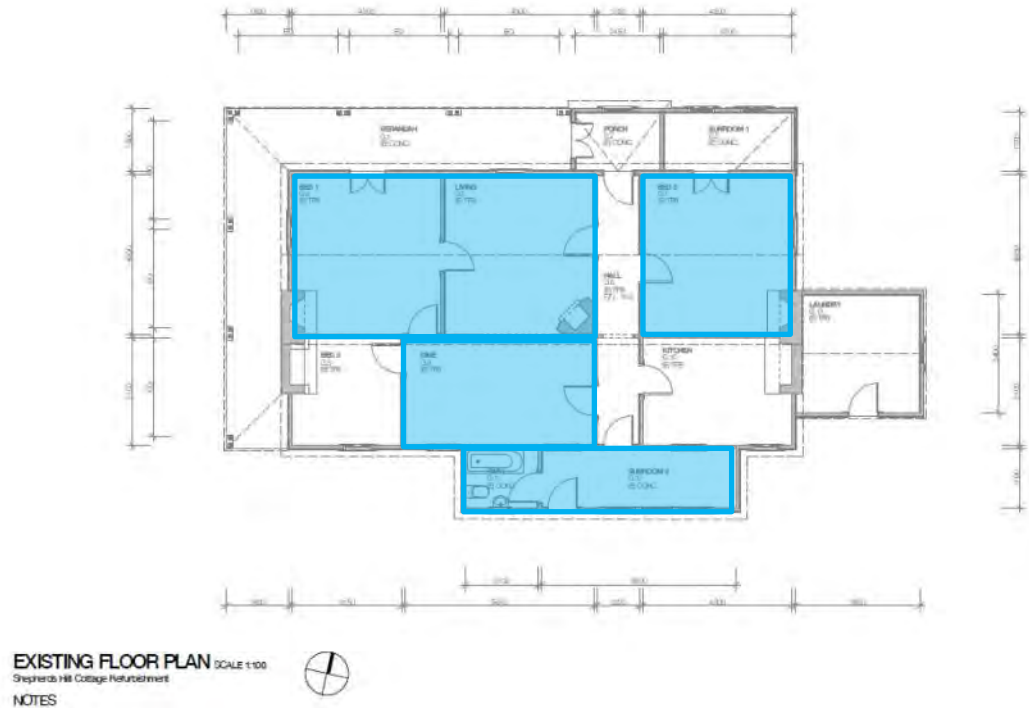


Figure 162: Existing floor plan of the cottage, showing the layout of the building and sections of the cottage that date from the 1920s and 1930s (indicated in blue). While Bed 1, Bed 2, the Lounge and Dining rooms date from the original construction period, the internal finishes were modified in the 1920s. The sunroom and bathroom were a later addition from the 1930s, as evidence in the external detailing to this section. (Source: Curran, drawing no. A100, revision A, 2 August 2017)

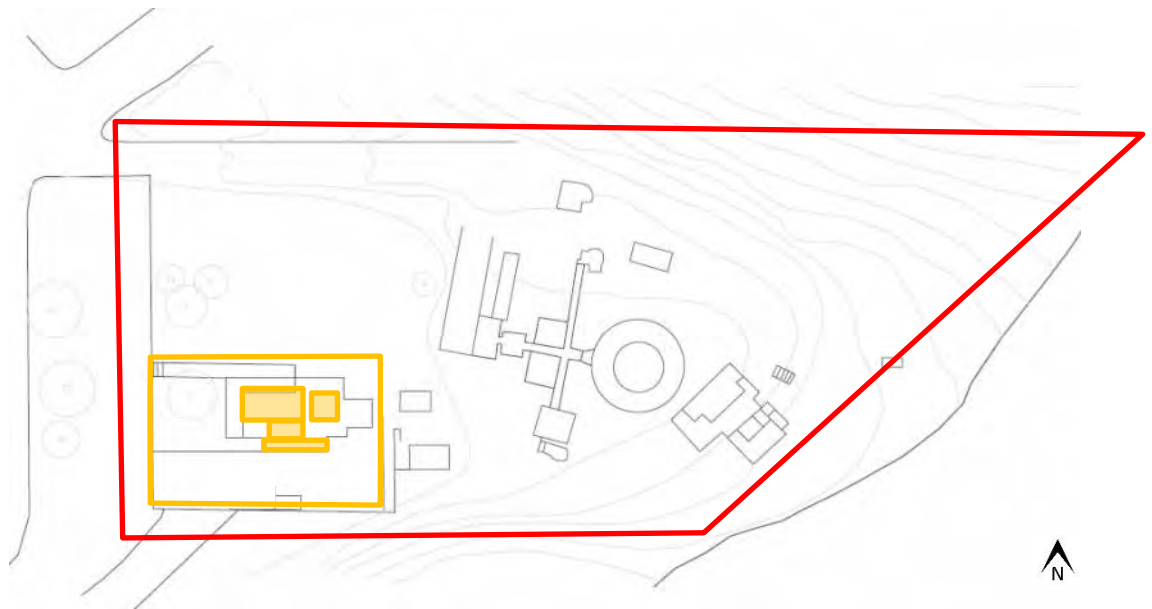


Figure 163: Plan for Shepherds Hill showing the 1920s-1930s phase of development (indicated in yellow). During this period included internal modifications to the cottage including Bedrooms 1 and 2, lounge and dining rooms. The southern sunroom and bathroom were added in the 1930s, construction of additional buildings for use of the site as the Port War Signal Station. Note, the exact location of these additional buildings is unknown and hence has not been included in the above plan. (Source: based on the plan for Shepherds Hill in Browne, Conservation Study 1984)



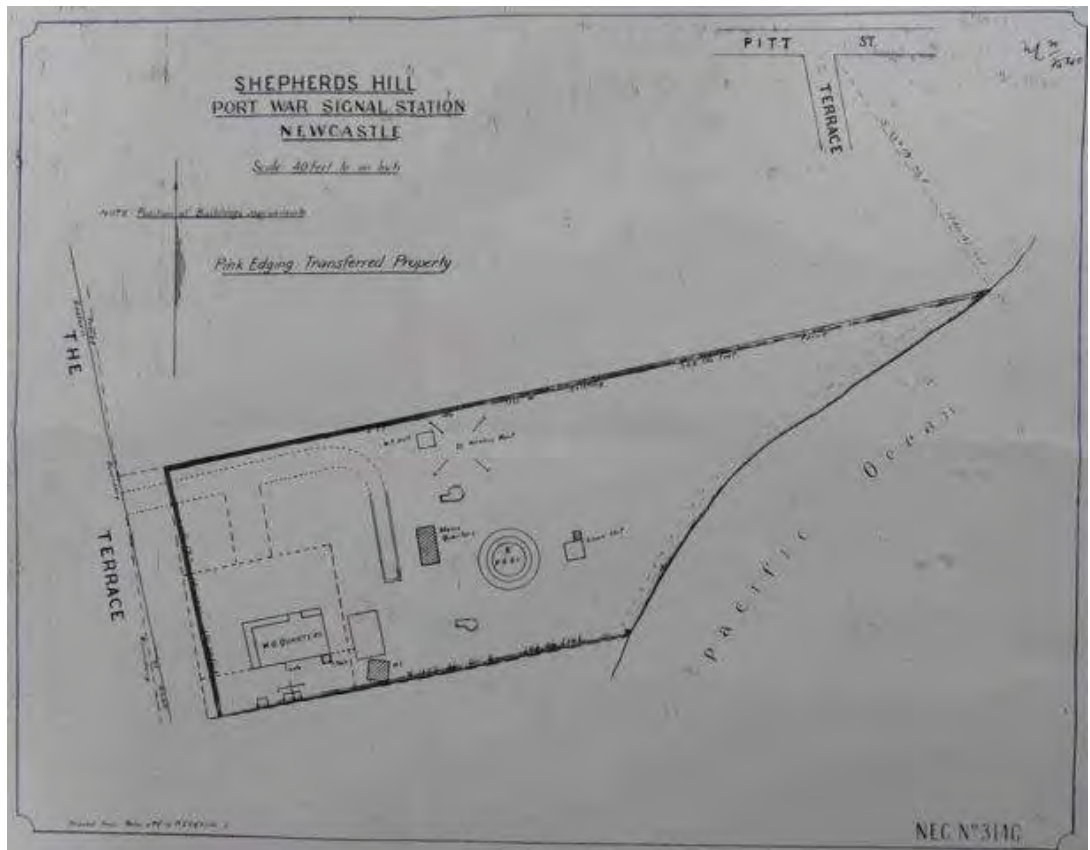


Figure 164: Another version of the plan of the Port War Signal Station, with letter of 6 September 1920. (Source: NAA, SP394/1, NL23/2211)

### Built Fabric

During this period of development modifications were made to the interior of the cottage including Bedrooms 1, 2, the lounge and dining rooms. These works undertaken in the 1920s were undertaken by the Naval Board and included the addition of plate rails, false beams, tapered architraves and splayed skirting. While some of these elements are still present within the cottage, many have been removed following asbestos removal works and require reinstatement.

By 1930, the southern sunroom and bathroom had been added. The north-eastern sunroom is also a later addition and was constructed by extending the main skillion roof and removing original external fabric such as stud walls and rafters.<sup>212</sup>

Additional buildings were constructed across the site of 41 The Terrace, however, no structures are extant today.

No built structures have been identified as being present in the location of the Park Battery, no.1 searchlight and bunker, tunnel and engine room and Park Battery no.1 gun and bunker.

### Landscape

As above, it is unclear whether the landscaping of the site changed during this period. It is presumed some change would have occurred as a result of the construction of structures in association with the Port War Signal Station. In 1939 41 The Terrace was indicated as consisting of sandy loam.

<sup>212</sup> Carr, John, Shepherds Hill Cottage Storm Damage Repairs SoHI Rev E, February 2017, p.8

## Views

The structures constructed on the site for the purposes of the Port War Signal Station were relatively low in scale and presumably were constructed to take advantage of the views that can be gained from the site. While views from the cottage may have been somewhat obscured, this would have only been minor due to the small footprint of the structures indicated in Figure 164.

### 5.3.6 Phase 5: World War II (1940-1942)

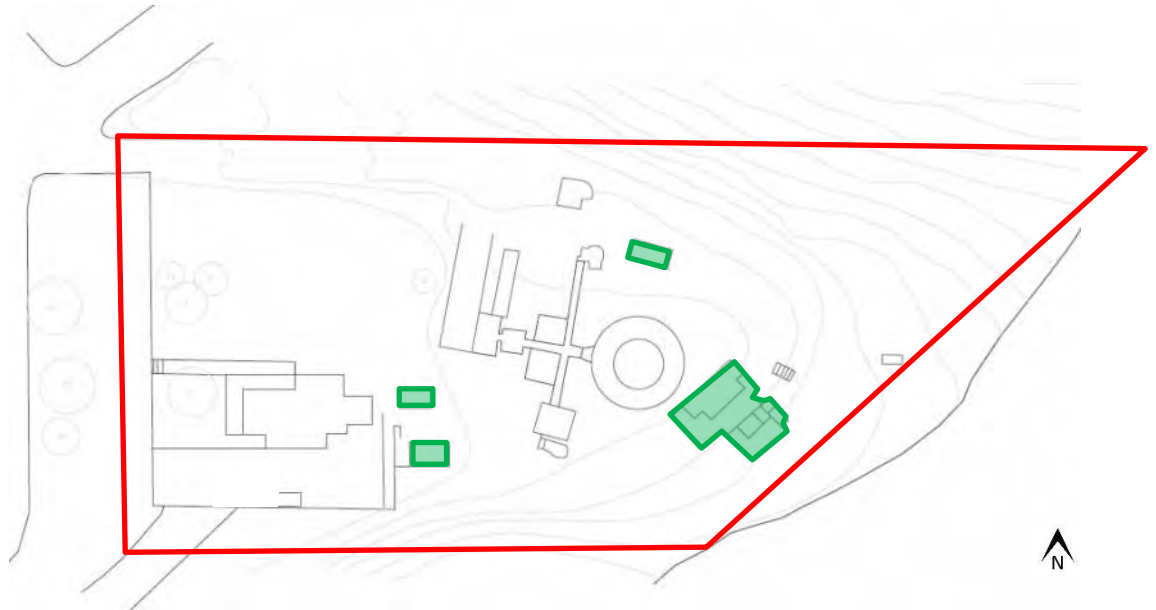


Figure 165: Plan for Shepherds Hill showing the fifth key phase of development, being World War II period between 1940 and 1942 (indicated in green). The Battery Observation Post was constructed in two separate stages in 1940 and 1942 and the Park Battery, no.1 gun and bunker was constructed in 1942. Both do not appear to have been modified since this period of time (although evidence of occupation and use is present in internal finishes, graffiti etc). The concrete pads also date from this period. (Source: based on the plan for Shepherds Hill in Browne, Conservation Study 1984)

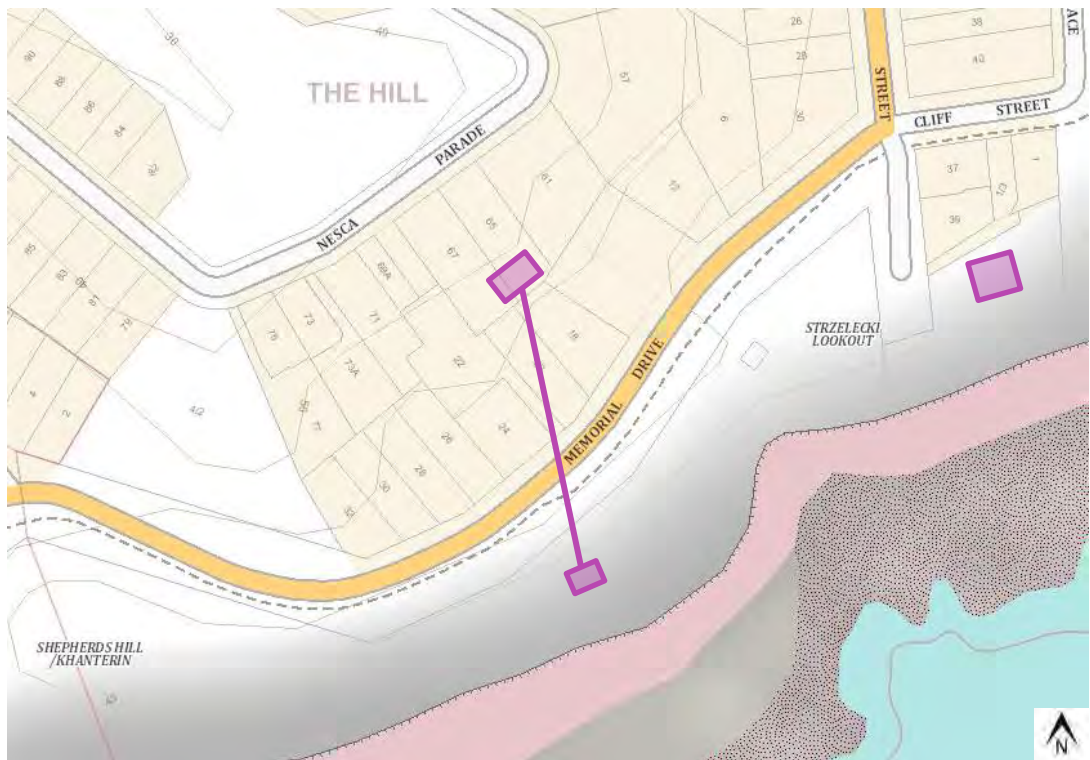


Figure 166: Map showing the Searchlight Engine Room, Tunnel and No.1 Searchlight, along with the Park Battery, no.1 gun and bunker, having been developed during the World War II period c.1942 (indicated in pink). (Source: SIX Maps accessed 24 August 2017 via <https://maps.six.nsw.gov.au/>)

### Built Fabric

During this phase the Battery Observation Post, Park Battery, no.1 searchlight and bunker, tunnel and engine room and Park Battery no.1 gun and bunker were all constructed.

It is possible that changes were made to the cottage when it became an Officer's Mess during World War II and by subsequent owners and occupants, however, historical research has not verified specific works undertaken during this phase.

The Battery Observation Post and Park Battery, no.1 gun and bunker are considered to retain physical fabric relating to their original construction (World War II). The Battery Observation Post, in particular, shows evidence internally of original paint finishes, equipment, plugs, shelving and noticeboards previously mounted on the walls. It was predominately constructed in 1940, however, later additions were made in 1942 when the Battery Observation Post and Search Light Directing Station for the Park Battery were added to the structure. Following decommissioning of the Battery Observation Post, all defence equipment was removed from the building and it is understood no further activities were conducted. The Battery Observation Post has since remained unoccupied.

There is no evidence to suggest any significant changes were made to these structures following construction, as with the Memorial Drive structures.

According to the Archaeological Assessment undertaken by JCIS Consultants and history prepared by Dr Terry Kass in Section 4, the concrete pads dotted around the site date from the World War II period as historical research indicates various ancillary buildings were erected at the time (e.g. ShD radar with a small engine house).<sup>213</sup>

<sup>213</sup> JCIS Consultants, Appendix F, Archaeology Shepherds Hill, December 2016, p.18



## **Landscape**

Landscaping details at the time are limited in historic resources, however, the grounds of 41 The Terrace would have changed in association with the construction of the Battery Observation Post. The location for the Park Battery structures along the coastline were specifically chosen not only for their vantage point, but also for the vegetation and geology, which would have assisted in obscuring them from view from the enemy.

## **Views**

The views from 41 The Terrace towards the Tasman Sea would have mostly reflected the existing views, with the Battery Observation Post obstructing some views from the cottage. Again, some development would have occurred within the surrounding context, however, due to the site's location on a promontory, views would have been well protected.

The locations for the Park Battery no. 1 searchlight, bunker, tunnel and engine room and the no.1 gun and bunker were chosen at the time due to the expansive views available (that would improve defence of the coast) and due to the vegetation present along the cliffs edge, which assisted in obscuring the structures from view.

### **5.3.7 Phase 6: Post War (1950s-1960s)**

#### **Built Fabric**

During this phase the only works undertaken included the construction of the laundry to the east of the cottage and the addition of an external toilet block. By 1958 both these structures were present, along with a garage that has since been demolished.

During the post war period, the tunnel under Memorial Drive was investigated and infilled. The shaft was closed and covered with a reinforced concrete slab below ground level. The concrete engine bed was also removed.

The 'former radar station' at 41 The Terrace was renovated in 1951 for military activities. Painting works and renovations were undertaken. It was used at the time as a depot for issuing uniforms and equipment to cadets from the high schools of the Hunter district.

During this phase the residential apartment buildings located at 65 Nesca Parade were constructed with the rear apartment building having been constructed directly on top of the engine room.

#### **Landscape**

No changes to the landscape identified.

#### **Views**

Views to the eastern elevation of the cottage were obstructed by the addition of the laundry, effectively obscuring the double chimney. No other view changes have been identified.



Figure 167: Plan for Shepherds Hill showing the sixth key phase of development, being the 1950s and 1960s. Little development appears to have occurred on the site, with the exception of the addition of a laundry to the east of the cottage and the toilet block to the south. These were both present by 1958 and may predate this. (Source: based on the plan for Shepherds Hill in Browne, Conservation Study 1984)

### 5.3.8 Phase 7: 1980s-1990s

#### Built Fabric

Conservation works were undertaken in the 1980s to the cottage following Council's acquisition of a \$100,000 grant for the works. The Gardner Browne report was also commissioned at the time.

The cottage was lease to G Steinbeck from 1988 to 1992, who undertook various works to the site, the exact details of which are unknown. It was also used during the 1980s by Newcastle Council as part of a short-lived Artist-in-Residence scheme.

In 1993 a development application was submitted to convert the cottage into a restaurant or tearoom, however, this was not approved.

The outhouse was also heavily modified during the 1990s.

#### Landscape

Newcastle Council workers were employed in November 1988 to clear the site of rubbish and vegetation. This work was undertaken by serving and retired artillery personnel.

#### Views

While no major construction works occurred during this period onsite, construction within the wider Newcastle area did occur. The exact changes that happened during this time to the views to and from the subject sites could not be quantified and have not been readily identified in historic research to date, however, views to the centre of Newcastle would have most certainly changed.

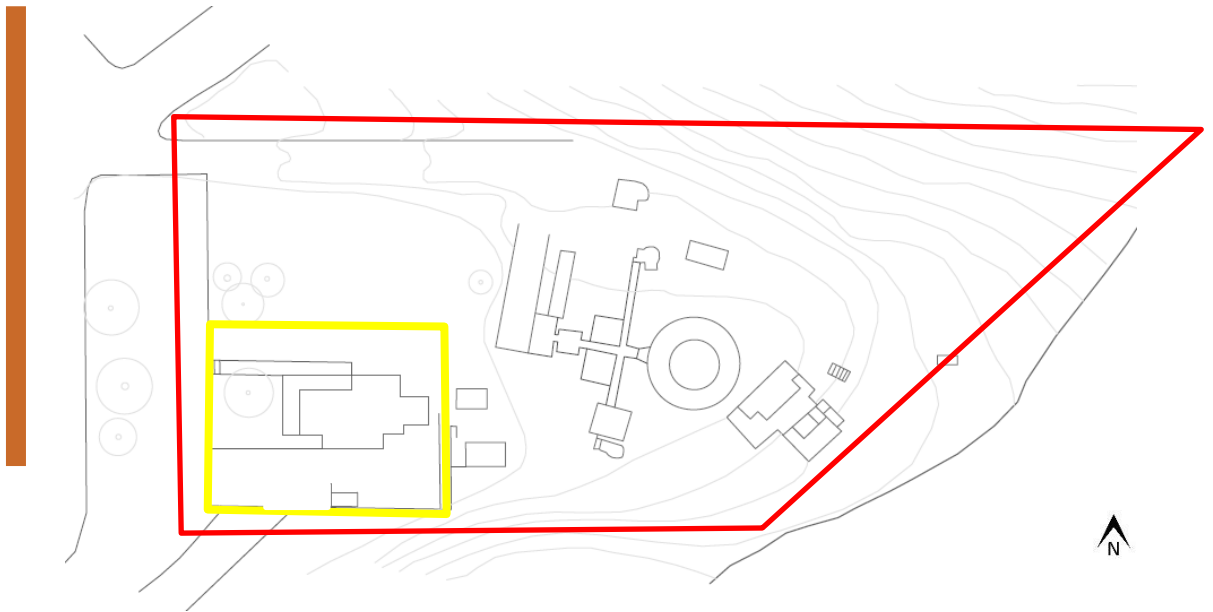


Figure 168: The fence surrounding the cottage is a later addition constructed in c.1980-1990. (Source: based on the plan for Shepherds Hill in Browne, Conservation Study 1984)

### 5.3.9 Phase 8 - 2000 - today



Figure 169: Image from 2016, showing the damage caused to the cottage following the storm of April 2015. The chimney was lost and damage was caused to the interiors.

### Built Fabric

In 2000 the Royal Volunteer Coastal Patrol (later Marine Rescue NSW) leased the cottage, originally only a few rooms. A ten-year lease was signed in 2009.

The westernmost chimney of the cottage was previously damaged and removed (exact date of removal is unknown) and as a result of damage caused by the April 2015 storms, the other surviving chimney was also severely damaged. The storm also resulted in damage to the roof, internal fabric and uncovered the presence of asbestos. Removal of this asbestos was undertaken and finalised in May 2016. The asbestos removal also resulted in the removal of fabric, with the picture rails, skirting boards and dado rails having been removed in several rooms (although some kept, stored and to be reinstated during conservation works).



All other structures also remain unoccupied.

### **Landscape**

Historic research has indicated no formal changes have occurred to the landscaping of the subject sites within recent years. Due to the damage caused to the cottage following the 2015 storm, the vegetation within the grounds of the cottage has overgrown.

To the northeast of 41 The Terrace is a small area of the Endangered Ecological Community Themeda Grassland, dominated by the native grass *Themeda australis* (Kangaroo Grass), currently undergoing rehabilitation. Growing close to the site are native shrubs common to coastal heath communities including *Acacia sophorae* (Coastal Wattle), *Lomandra longifolia* (Mat Rush), *Westringia fruticosa* (Coast Rosemary), *Leptospermum laevigatum* (Coastal Tea Tree) and *Banksia integrifolia* (Coastal Banksia) although these only date from 2004 when they were planted to help re-establish the original plant community and to overcome the scourge of *Chrysanthemoides monilifera* (Bitou Bush) which had invaded the area.

### **Views**

While a significant amount of development has occurred in Newcastle since the 1890s, views to and from the site are still readily achieved as noted in Section 3.6. Historic visual links have remained and are an integral part of the interpretation of these sites. Direct views, as detailed in Section 3.6, can be gained from the cottage and Battery Observation Post towards Fort Scratchley and Nobby's Lighthouse, although development in the Newcastle CBD has gradually encroached on this. The views to and from these sites are therefore not as clear as they historically were. Views from the window slots within the Battery Observation Post towards the Tasman Sea have not been impacted and remain largely the same.

## 6. Archaeology

### 6.1 Indigenous Archaeology

Indigenous archaeology has been addressed in the Aboriginal Due Diligence report appended to the end of this report (Appendix 12.6).

### 6.2 Non-Indigenous Archaeology

The following table and maps summarise the findings in relation to the archaeological potential and significance of the subject site, as contained in the *Archaeology of the Shepherds Hill Defence Group* report prepared in 2016 by JCIS Consultants (Appendix G).

Table 1: Summary of historical archaeological potential and significance

Archaeological Item	Date	Discussion (JCIS 2016)	Archaeological Potential	Archaeological Significance
Gun pit	c. 1890	The gun pit seems to be in good condition with little evidence of damage or repairs; this is surprising in view of the reported damage to the pit from the creep incident of 1906.  The central pit which is filled in with sediment and rubbish has some archaeological potential to contain the anchor bolts and pivot for the mounting.	<b>High</b> – fill has potential to contain archaeological relics	<b>High</b> – integral to the function of the facility
Parapet to gun pit	c. 1890	The pit is circular with a sloping curved parapet. Housed the hydro-pneumatic mount and the gun – both of which have been removed.	<b>Low</b> – above ground	<b>High</b> – integral to the function of the facility
Pump chamber	c. 1890	Location of the pump used to charge the hydraulics of the mount. (Steinbeck claims to have identified some bolts for mounting the pump and evidence of drains in the pump chamber.)	<b>Medium</b> – CMP identified potential to contain archaeological relics	<b>High</b> – integral to the function of the facility
Main passage	c. 1890	Runs straight from the entry ramp through to the gun emplacement on an east-west axis.	<b>Medium</b> – has potential to contain evidence of movement of material into magazines	<b>High</b> – integral to the function of the facility
Vent over main passage	c. 1890	A shaft or light well from the surface into the main passage. It is not clear what the purpose of the vent is.	<b>Low</b> – above ground	<b>Medium</b> – original, but of unknown function

Archaeological Item	Date	Discussion (JCIS 2016)	Archaeological Potential	Archaeological Significance
North DRF and passage	c. 1890	This passage provided access to the DRF pit and as well providing a lamp passage for the cartridge magazine. There is some archaeological potential for the bottom of the pit since the removal of the fill may reveal where the DRF was located and evidence of how the position communicated with the gun and other positions.	<b>High</b> – removal of fill may reveal location of DRF and communications with the gun	<b>High</b> - integral to the function of the facility
South DRF and passage	c. 1890	This passage provided access to the DRF pit and also provided a lamp passage for the shell magazine. The access to the DRF has been blocked up; and a new passage and entrance to the shell magazine cuts through this passage. There is some archaeological potential for the pit in understanding the nature of the cable running into it, and whether it was for communication or some other purpose.	<b>High</b> – removal of blockage from passageway and fill from pit may reveal its relationship with the cable	<b>High</b> - integral to the function of the facility
New passage to shell magazine	20th C – date unknown	The passage from the shell magazine to the pump chamber is of different construction, being concrete rather than brick, and is considered on stratigraphic grounds to be newer and added to the original design – perhaps to facilitate access for the heavy shells to the gun pit.	<b>Low</b> – Modern installation which has been stratigraphically investigated	<b>Medium</b> – not part of original design
Cartridge store	c. 1890	Both passages contain niches for lamps. There is evidence of racks for cartridge storage in the floor.	<b>Medium</b> - contains evidence of earlier machinery and accessories which could be further investigated	High - integral to the function of the facility
Shell store	c. 1890	Both the DRF passage and the passage on the western end contain niches for lamps. There is evidence of shell racks on the floor and a rail for a crane in the roof.	<b>Medium</b> – contains evidence of earlier machinery and accessories which could be further investigated	<b>High</b> - integral to the function of the facility



Archaeological Item	Date	Discussion (JCIS 2016)	Archaeological Potential	Archaeological Significance
Casemate	c. 1890	The casemate area is the entrance to the gun pit and is where materials (particularly ammunition) could be unloaded undercover. The northern room has a concrete footing while the southern room has concrete mounting for machinery as well as a rusted and collapsed I beam which would have been used for a crane – presumably to lift the shells and help transport them into the magazine. (Steinbeck notes that the radar station had a backup generator that could have been mounted on one of these footings but offers no evidence that this was so.)	<b>Medium –</b> potential to further investigate whether backup generator was mounted on existing concrete footings	<b>High</b> - integral to the function of the facility
Entry ramp	c. 1890 (modifications made at later dates)	The entry ramp provides access for a wagon or motor vehicle to the magazines. There appear to be two phases of construction in the walls of the ramp. It is possible that the ramp was altered to accommodate motor vehicles.	<b>Low –</b> above ground	<b>High</b> - integral to the function of the facility (later modifications medium)
Concrete slabs	1939-1944	There are a number of concrete slabs visible on the current aerial image and on the ground, and clearly some more were visible in 1984 as they are drawn on the site plan in the CMP. There is no doubt that these relate to the World War II use of the site as it is known that a number of ancillary buildings were erected.	<b>Medium –</b> potential to identify extent and location of WWII ancillary structures	<b>Medium –</b> ownership and relationship to facility not firmly established

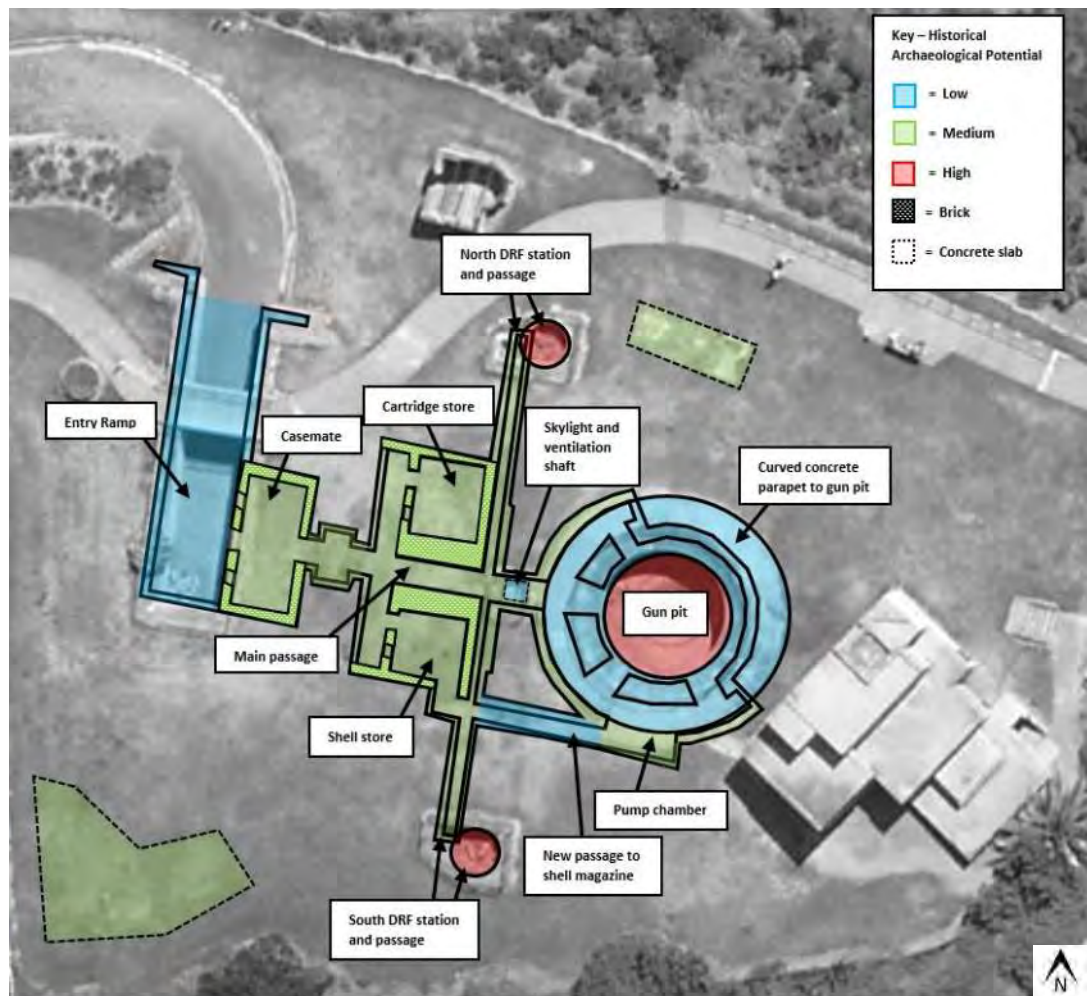


Figure 170: Map indicating areas of historical archaeological potential within the subject site

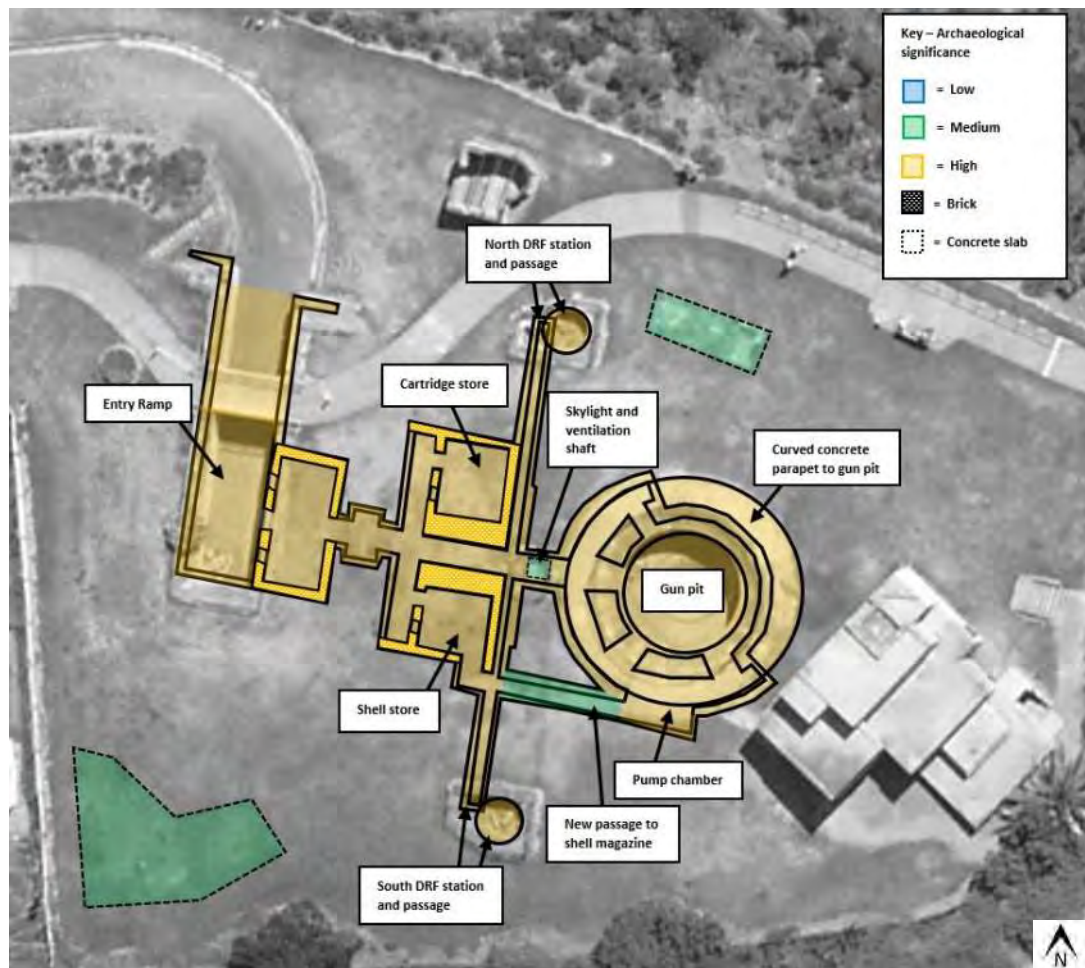


Figure 171: Map indicating areas of historical archaeological significance within the subject site

### 6.2.1 Summary

Areas considered to have high potential for archaeology include the two in-ground DRF stations. Removal of fill and debris may yield information in relation to the location of the DRF within the northern DRF station and the precise nature of the cabling running into the southern DRF station. The gun pit may also contain remains of the hydraulic cylinder for the disappearing gun mount. The majority of subsurface remains have been identified as containing evidence of earlier machinery and accessories in connection with the site, which may warrant further investigation. Numerous concrete slabs throughout the site have been identified as having belonged to a number of WWII ancillary structures, which once existed on the site. The precise historical and contextual nature of these requires further investigation.

Areas of high archaeological significance include those areas which have been assessed as being both original and integral to the function of the facility. These include the majority of both subsurface and above-ground remains. Exceptions include the new passage to the shell magazine, which the JCIS report identified as belonging to a later construction phase, the skylight/ventilation shaft above the main passage, the precise function of which has not been established, and the numerous concrete slabs throughout the site, which will require further archaeological and historical investigation.



## 7. Comparative Analysis

The level of significance of an item is determined by its value relative to other comparable items, be they in a local or international context. The rarity and/or representativeness of the item are considered as part of the overall analysis of its significance. Comparisons will be made between suitable buildings for the purposes of establishing significance in relation to the rarity criteria and representativeness criteria of the NSW Heritage Council's 'Assessing Heritage Significance' guidelines.

This analysis will focus on listed heritage items comparable with the subject site. Firstly, it will concentrate on other examples of fortifications within the Newcastle LGA. Then, comparison with similar fortifications in NSW will be explored. Then, similar examples of each group of structures present on the site including the following:

- Cottage;
- Gun emplacement
- Battery Observation Post;
- Park Battery, no.1 searchlight, gun, tunnel and engine room;
- Park Battery no.1 gun and bunker.

### 7.1 Other Fortifications in the Newcastle LGA

Australia's early colonial defence systems were reliant on British military units that were installed to defend and establish law and order in the various settlements throughout Australia. British military support was withdrawn in 1870 and as a result, it became the responsibility of each individual state to attend to their own defence requirements.<sup>214</sup>

One of the most vulnerable areas requiring defence were coastal ports and towns and with the threat of a Russian attack (and various other international threats) during the late 19th century, the development of coastal defence systems was crucial.

As detailed in Section 4, Newcastle became a major port and during the late 1800s, the need to defend this port became increasingly apparent. As a result, new fortifications were developed along the coast in strategic areas including the Shepherds Hill Defence Group Military Installation sites, Fort Scratchley and Fort Wallace (Stockton).

#### 7.1.1 Fort Scratchley, Newcastle

Fort Scratchley was originally the site of the first European coal mine in Australia. During the early 19th century the site was considered a prime location for coastal defence operations due to its height which provided a prominent outlook to and from the ocean.

Built in 1882, the construction of Fort Scratchley was overseen by Major General Sir William Jervois, Lieutenant Colonel Peter Scratchley (after whom the site was named) and Colonial Architect James Barnet. The design of the Fort was based around a gun emplacement of three guns arranged in an arc facing east towards the ocean and cut into the hill top. The other guns were to the north and west, overlooking the harbour.

Located within the fort, which is classified as a 'closed fortress', are barracks buildings, the commandant's cottage, gun emplacements and casements and a battery observation tower. The site is surrounded by a dry moat and defensive wall (Figure 172 and Figure 173).

Characteristics	Comments
Address	Nobbys Road, Newcastle East, NSW
Construction	Various, built elements mainly dating from 1880s

<sup>214</sup> NSW State Records, Archives In Brief 115 - Coastal Fortifications, "Background to the major fortifications", <https://www.records.nsw.gov.au/state-archives/guides-and-finding-aids/archives-in-brief/archives-in-brief-115>

Use	Museum
Level of Intactness	Excellent
Architect	Major General Sir William Jervois, Lieutenant Colonel Peter Scratchley and Colonial Architect James Barnet
Comments	<p>Fort Scratchley is a more expansive and intact example of a coastal defence site. Many original structures are still present and there are more structures on the site than at Shepherds Hill. The site is surrounded by a dry moat, a defensive wall and classified as a 'closed fort'. The site is also significantly larger than the Shepherds Hill site.</p> <p>Alike Shepherds Hill, North Head is a representative example of 19th century technologies employed for the coastal defence of NSW.</p>



Figure 172: Aerial view of Fort Scratchley, Newcastle. (Source: Six Maps 2015)



Figure 173: View of Fort Scratchley.

### 7.1.2 Fort Wallace, Stockton

Fort Wallace was originally developed as a coastal defence site in the late 19th century and endured further development during the early 20th century in order to protect Newcastle's harbour, beach and industries (i.e. coal during World War I and steel during World War II).<sup>215</sup>

The site encompasses various structures including gun emplacement and associated magazines, powerhouse and tunnels, observation tower, wireless room, casualty station, plotting room and underground plotting room (Figure 174 and Figure 175).

Characteristics	Comments
Address	Stockton, NSW
Construction	Various built elements mainly dating from 1880s
Use	Unclear, possibly Naval Accommodation
Level of Intactness	Unclear
Architect	unknown
Comments	The observation post is in a similar style to Shepherds Hill, however, the layout differs with the two gun pits and emplacement located along the eastern side of the site, towards the beach. The observation post is located behind the gun pits rather than in front of but includes the same stepped down appearance as the Shepherds Hill Observation Post. It is also on a similar scale, however, the site topography differs.

<sup>215</sup> Commonwealth heritage places in New South Wales, Department of Environment, <http://www.environment.gov.au/node/19622#wallace>





Figure 174: Photographs of Fort Wallace dating from 1969 and 1960. (Source: Newcastle Morning Herald, Newcastle Region Library, item no.'s 163 000624 and 104 012875)

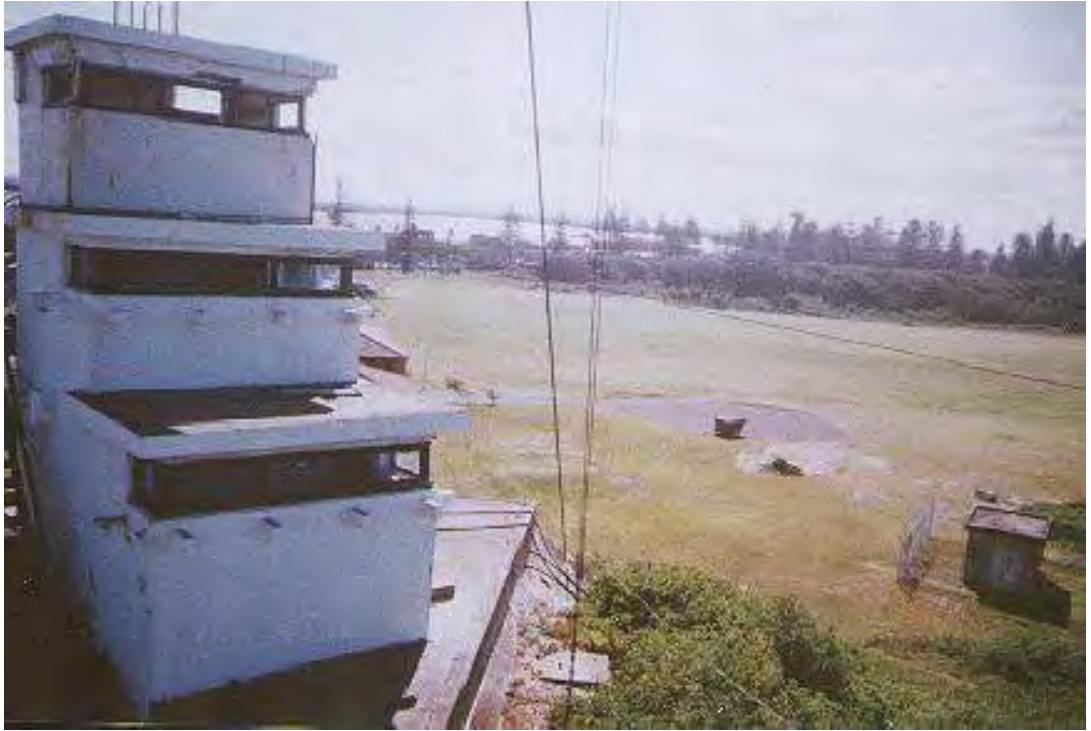


Figure 175: Undated photograph of the Fort Wallace Observation Post by Ross Craig. (Source: Newcastle Region Library, item no. 037 000060)



Figure 176: Aerial view of Fort Wallace, Stockton. (Source: Six Maps 2015)

## 7.2 Other Coastal Fortifications in NSW

Throughout NSW, various other coastal fortifications were developed at key periods in response to potential threats to Australia's coastal boundaries. While there are a number of fortifications that were created during the late 19th century in response to the withdrawal of British troops and various international threats, development of coastal fortifications during the World Wars was also prevalent.

It should be noted that the development history of each of these sites varies and no site exactly matches the construction phases of the Shepherds Hill Defence Group Military Installations. Therefore, various examples that share similarities with the subject site have been used for the purpose of the following comparative analysis.

### 7.2.1 Bare Island Fort, Botany Bay

Bare Island Fort is located near the entrance of Botany Bay and was developed as a coastal defence site to control the entrance of unwanted visitors into the Bay. The site was developed at several different stages with the five-gun emplacement and bomb proof tunnels having been the first development on the island, completed in 1885.<sup>216</sup>

A Royal Commission was held in 1890 and found that the concrete used for construction was of an inferior quality and consequently the Fort was considered faulty. As such, the fort was decommissioned by 1902.<sup>217</sup>

Subsequent developments include conversion of the barracks into a nursing home for war veterans in 1912 and establishment of a museum onsite in 1963 by the Randwick District Historical Society.

The existing fortifications located on Bare Island include a battery, barracks buildings, parade and courtyard, access bridge, laboratory room/ guards quarters. The design of the

<sup>216</sup> State Heritage Inventory Form for the Bare Island Fort, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5045621>

<sup>217</sup> "Bare Island at La Perouse will host a fundraiser for Bare Hands", Laura Suckling, Southern Courier, via Daily Telegraph online, 29 November 2013, <http://www.dailytelegraph.com.au/newslocal/city-east/bare-island-at-la-perouse-will-host-a-fundraiser-for-bare-hands/story-fngr8h22-1226770238204>



fortifications was based on a symmetrical crescent with the heaviest gun located towards the centre (Figure 177 and Figure 178).<sup>218</sup>

Characteristics	Comments
Address	Bare Island, Botany Bay
Construction	1881-1889
Use	Museum
Level of Intactness	Good
Architect	Designed by Scratchely with assistance from civil engineer Gustavus Morell and Colonial Architect James Barnet
Comments	The fortifications are located on an island with 360-degree view of Botany Bay and a number of gun pits to accommodate. There is no associated cottage and the site was decommissioned as a defence site in 1902 therefore there was no subsequent development of the site in response to the World Wars.



Figure 177: Aerial view of Bare Island Fort, Botany Bay. (Source: Google Maps 2016)

<sup>218</sup> State Heritage Inventory Form for the Bare Island Fort, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5045621>





Figure 178: Photograph of the Bare Island Fort looking south east. (Source: The Australian, <http://www.theaustralian.com.au/life/travel/sunday-at-la-perouse/story-e6frg8rf-1226305548427>)

### 7.2.2 South Head Fortifications (HMAS Watson), Watsons Bay

During the mid-19th century South Head was identified as an ideal location for harbour defence. While some construction happened on the site, the development of fortifications at South Head was accelerated when news of the Crimean War broke in Australia. By 1855 the works were put on hold after only two of the gun pits/bastions and part of the adjoining rampart had been construction.<sup>219</sup> The gun pits were demounted in 1857 and the Hornby Light now sits in one of them.<sup>220</sup>

Further structures were built on the site with work resuming in 1871, however, the main period of development of the site occurred during World War II.

While the signal station was dismantled after World War II, many defence structures still remain. The site is currently occupied by HMAS Watson and includes a number of structures such as officers' quarters, officer's mess, former sergeants mess, former stable/carriage shed, gun carriage coach house and annex, former guard house, former artillery barracks, sandstone drainage moat and rifle post wall, 80 pounder battery and five connected gun emplacements, World War I and World War II artillery fortifications on seaward cliffs, War Memorial Chapel of St George the Martyr, Aboriginal rock carving seaward side of Chapel (Figure 179 and Figure 180).

Characteristics	Comments
Address	HMAS Watson, Watsons Bay, NSW, 2030
Construction	Various, built elements dating from mid-late 19th century and World War II
Use	Naval Site
Level of Intactness	Excellent
Architect	various
Comments	The earliest fortifications construction on the site preclude the withdrawal of British troops. The site was consistently development during the mid to late 19th century with construction works ceasing at several points, particularly during World War I. The site was significantly developed during World War II and there are a number of structures present on the

<sup>219</sup> Stage 1 CMP for South Head, Sydney Harbour National Park, Volume 1, Assessment of Significance, Mary Knaggs, Government Architect's Office, p.54

<sup>220</sup> Ibid

site from this period. The site is therefore more expansive than Shepherds Hill, requiring more fortifications due to its location on a headland.

While some buildings and structures were decommissioned, unlike Shepherds Hill, the site continues to be used as a defence force site and is currently occupied by HMAS Watson (Australian Navy).

Similar to Shepherds Hill, South Head is an open style of fortification.



Figure 179: Photograph from c.1900 -1910 showing the South Head fortifications as viewed from the Hornby Light Tower. The two-gun emplacements construction in 1876 are visible. (Source: State Library of NSW, item no. PXE711/23)

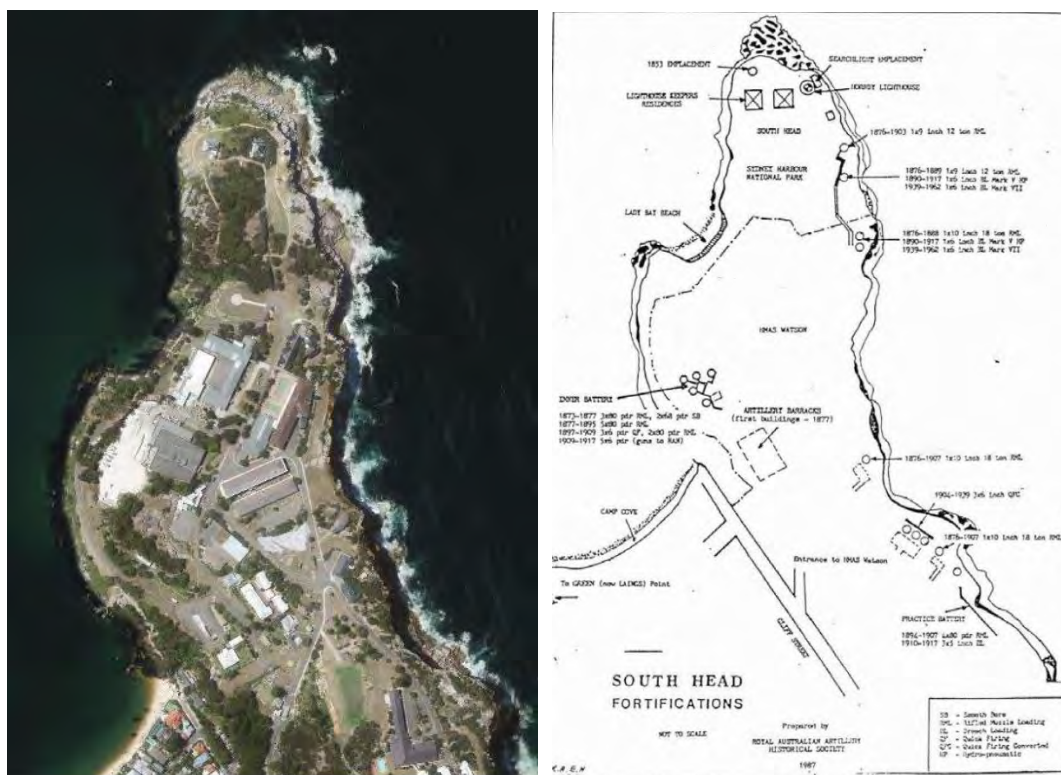


Figure 180: Aerial view of South Head (HMAS Watson) and a map by Major Roy Harvey of the Australian Artillery Historical Society showing the various batteries located at South Head Fort, 1990. (Source: Stage 1 CMP for South Head, Sydney Harbour National Park, Volume 1, Assessment of Significance, Mary Knaggs, Government Architect's Office, p.62)

### 7.2.3 Middle Head Military Fortifications, Mosman

The Middle Head Military Fortifications (Figure 181) include a series of structures and buildings dating from 1801 to the mid-20th century. The fortifications are divided into five complexes which include the Outer Middle Head Battery, Inner Middle Head Battery, Inner Middle Head Barracks, Middle Head Fortifications and Obelisk Bay Fortifications. The earliest battery located on the site was built in 1801 and is included within the Middle Head fortifications complex.

A number of early roads, a stone lined defensive moat, Observation Posts and searchlights, DRF stations and a quarry site are also associated with the site.

Similar to Shepherds Hill, an education facility was operated at Middle Head, known as the School of Artillery/Gunnery. The school operated from 1885 under the guidance of Major EGH Bingham.

Middle Head had predominately been decommissioned as a defence site by the 1960s and in 1970 it became a National Park.

Characteristics	Comments
Address	Middle Head, Mosman, NSW
Construction	Various dating from early 19th century to mid-20th century
Use	National Park
Level of Intactness	Excellent
Architect	various



Comments	The Middle Head Fortifications consist of a large collection of defence facilities dating from 1801 to the mid-20th century. The site is more complex and intact than other coastal defence sites, including Shepherds Hill. The site also pre-dates the withdrawal of British troops from Australia and therefore is an example of early colonial coastal defence fortifications.
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Figure 181: Middle Head fortifications including an Observation Post and gun pit. Photograph by Stirling Smith. (Source: State Heritage Inventory Form for Middle Head, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5045689>)

#### 7.2.4 North Head Fortifications, Manly

During World War II, the threat of an attack from the Germans and Japanese was a concern and a great deal of consideration was given to the strategic placement of fortifications along the NSW coast to ensure the best defence systems were in place. As such, fortifications were built at North Head, Newcastle, Cape Banks and Wollongong.

The fortifications located at North Head included two 9.2 inch BL Mark 10 guns with associated magazines, shell store and pump chamber, all located underground with a concrete road above and connected by a series of tunnels (Figure 182). Also within the underground complex was an engine room and plotting room. Above ground, towards the northern end of the site, was a concrete Observation Post.

The guns were removed and the site was officially closed as a defence site in 1960. It has since been converted into a National Park.

Characteristics	Comments
Address	North Head, Manly, NSW
Construction	Various, built elements dating from World War II
Use	National Park
Level of Intactness	Excellent
Architect	various
Comments	The North Head Fortifications were a key site in the coastal defence systems put in place along the NSW coast during World War II. The fortifications are of a later date to Shepherds Hill, however, follow a similar layout and plan to the subject site.



Figure 182: Photograph of one of the two gun pits located at North Head as pictured in 1986. (Source: SHI form for North Head Fortifications, <http://www.environment.nsw.gov.au/heritageapp/HeritageItemImage.aspx?ID=2020399#ad-image-0>)

### 7.2.5 Bradley's Head Fortifications, Manly

The Bradley's Head Fortifications (Figure 183) are located within Ashton Park in Manly and consist of two fort complexes, dating from 1840 and 1871. Both are constructed from large blocks of sandstone and have been partially carved out of the site's original rock, making them somewhat unique in comparison to other coastal defence sites.

The 1840 site, which includes a gun pit, was built under the supervision of Major George Barney and was a crucial part of the inner line of defence for Sydney. The 1870 battery, which included three gun pits with connecting galleries and trenches, was built under the supervision of James Barnet.

The fortifications are also associated with a number of other structures including a sandstone wharf from the 1850s and a riflemen's gallery built c.1870. There is also a tripod mast present onside, erected over the 1840s complex in 1934 in memory of World War I (mast of the Royal Australian Navy Ship HMAS Sydney erected).

Bradley's Head is also considered an archaeological site as a number of footings are present from other buildings which once occupied the site including a World War II anti-aircraft gun emplacement.

Alike many of Sydney's coastal defence sites, Bradley's Head was continuously developed in response to the various conflicts that threatened Australia up until World War II. It is considered one of Sydney's best known historic fortifications.

Characteristics	Comments
Address	Bradley's Head
Construction	1839 to mid-20th century
Use	National Park, recreation area
Level of Intactness	Excellent
Architect	various

Comments	Unlike Shepherds Hill, the gun pits and associated structures have been constructed from sandstone blocks. There are also trenches rather than tunnels. The site has been consistently occupied during the various conflicts between 1839 and World War II and is associated with the early defence of Sydney/ NSW, prior to the withdrawal of British Troops.
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Figure 183: Views of Bradley's Head fortifications including a gun pit and trench. (Source: National Parks NSW, <http://www.nationalparks.nsw.gov.au/things-to-do/historic-buildings-places/military-relics-at-bradleys-head>)

#### 7.2.6 Cape Banks (Fort Banks), Botany Bay

The Cape Banks fortifications (Figure 184), also known as Fort Banks, were established in 1936 after Specifications were made for the erection of a command post and battery observation post onsite. Subsequently, various structures were constructed including two gun emplacements with associated underground plotting room, power and shell magazine, hydraulic pump room and tunnels connecting all elements.

In 1938 military housing was constructed onsite.

The site of Cape Banks is considered of significance as it reflects the strategic military defence implemented to protect Sydney during World War II.

Characteristics	Comments
Address	Cape Banks, La Perouse, NSW
Construction	World War II, dating from 1936
Use	National Park
Level of Intactness	Excellent
Architect	unknown
Comments	While some comparisons can be made between this site and Shepherds Hill, all structures present at Cape Banks were constructed during World War II with the earliest structure dating from 1936.





Figure 184: Images of the Cape Banks fortifications. (Source: Weekend Notes online <http://www.weekendnotes.com/cape-banks-botany-bay-national-park/>)

### 7.3 Accommodation Associated with Defence Sites

Depending their size, defence sites often included barracks buildings in order to provide military accommodation for soldiers employed to work on the site. This not only ensured separation from the civilian population, but, in the case of Shepherds Hill, enabled a quick response to any potential threats or issues with the site's equipment. While Shepherds Hill was considered a smaller defence site in comparison to Fort Scratchley, the site includes a small cottage rather than a barracks building, used by the Master Gunner and his family (and later as an Officer's Mess). As noted previously, The Terrace also included various other accommodation buildings constructed after the cottage, however, these buildings no longer remain.

The following comparative analysis focuses on accommodation associate with defence sites, predominately with coastal fortifications and to a similar scale as the Shepherds Hill cottage.

#### 7.3.1 Officer's Quarters, Middle Head

The Officer's Quarters located at Middle Head (Figure 185. Figure 186 and Figure 187) is built in the Victorian Regency style and was designed by Colonial Architect James Barnet. It includes a prominent stone base and symmetrical façade with a veranda that has since been filled in. The house is prominently positioned facing towards the water.

The residence was designed to accommodate two offices, being of senior and junior rankings, at the same time but in separate living areas. Between 1886 and 1893 the Officer's Quarters was occupied by Major General Sir William Throsby Bridges KCB CMG and his family. Bridges was Officer Commanding of the Middle Head Battery and is famously known as the first commander of the Australian Imperial Force and commander of Australian forces in Gallipoli.

During World War II the residence was used as a Red Cross hospital and accommodation for the Australian Women's Army Service. The building is still used as a residence today.

Characteristics	Comments
Address	Middle Head, Mosman
Construction	c.1800s
Style	Victorian Regency
Use	Residence
Level of Intactness	Excellent
Architect	Colonial Architect James Barnet
Comments	This building is on a larger scale to the Shepherds Hill cottage due to its topographic location and as it was built for the purpose of accommodating two men (and presumably their families). The house has a prominent stone base and large double sided staircase towards the front façade that leads to the main entrance. The stone base elevates the cottage.



Figure 185: View of the Officer's Quarters looking towards the front façade. (Mosman Library, Behind the Lines Blog Project, <http://mosman1914-1918.net/project/blog/the-death-of-a-gallant-and-erudite-soldier>)



Figure 186: View of the Officer's Quarters looking towards the site of the house. (Mosman Library, Behind the Lines Blog Project, <http://mosman1914-1918.net/project/blog/the-death-of-a-gallant-and-erudite-soldier>)

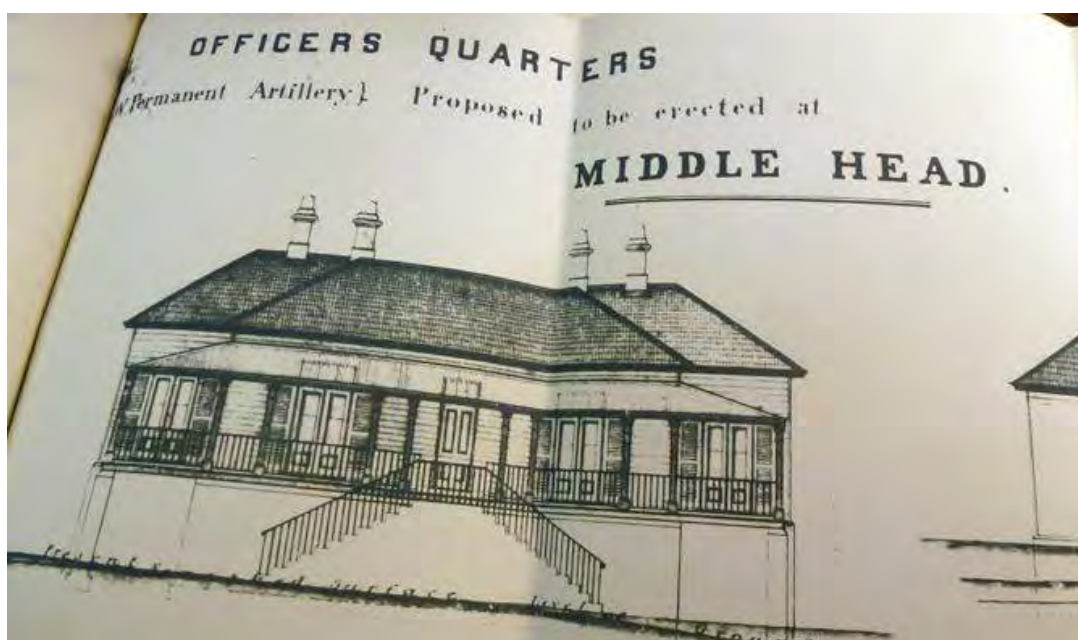


Figure 187: Original undated drawing for the Officer's Quarters. (Mosman Library, Behind the Lines Blog Project, <http://mosman1914-1918.net/project/blog/the-death-of-a-gallant-and-erudite-soldier>)

### 7.3.2 Commandant's Cottage, Fort Scratchley

The Commandant's Cottage (Figure 188 and Figure 189) located at Fort Scratchley in Newcastle is a bungalow in the Victorian Regency style and was constructed between 1885-86, at the same time as the Fort Scratchley barracks building. Both buildings are located within the fort.

Internally the building consists of two bedrooms, a sitting room and third bedroom with living and utility functions separated by a central open covered walkway. The utility rooms are located on the eastern side while the living rooms are towards the western side (overlooking Newcastle river).

Located within the rear pavilion of the cottage is a wash house, a kitchen and a servant's bedroom. There is also a utility wing and a flight of stairs which leads to the lower terrace and barracks building. Towards the bottom of the western steps are two closets containing a urinal and toilet.

The cottage was substantially altered and is a partial reconstruction as a lot of deteriorated fabric was removed and replicated including doors, windows, floor boards, ceilings, cornices and fittings.

Characteristics	Comments
Address	Fort Scratchley, Signal Hill, Newcastle
Construction	1886
Style	Victorian Regency
Use	Military Interpretation Museum
Level of Intactness	Excellent
Architect	Colonial Architect James Barnet and designed by Gustave Morrell
Comments	This building is significantly larger than the Shepherds Hill cottage, however, was built during a similar period. The cottage at Fort Scratchley is also associated with another building



structure on the site, being the barracks, and directly relates to it. The cottage is located on a terraced site and therefore has an elevated view of the coast.



Figure 188: Commandant's Cottage as depicted in an undated photograph. (Source: Fort Scratchley Historical Society Inc. <http://m.fortscratchley.org.au/commandants-cottage-early-period.html>)



Figure 189: Commandant's cottage after restoration in 1978. (Source: Fort Scratchley Historic Site Plan of Management, Suters Architects, 2008)

### 7.3.3 Master Gunner's Cottage, Fort Scratchley

The Master Gunner's Cottage at Fort Scratchley (Figure 190) was constructed in c.1926 and internally includes four rooms with a small bathroom and kitchen. There is also a laundry and toilet located in a separate wing to the western side and a veranda to the north western elevation. The cottage façade is constructed from weatherboards and the iron gabled roof was replaced during the 1970s.

Unlike the Commandant's Cottage, the Master Gunner's Cottage is located within the outer fort precinct and therefore is not within the 'closed fort.'

Restoration of the cottage had been completed by 1982 after which the building was used as the Newcastle Out of Works space. The cottage was subsequently refurbished again in 2005-2008 which included works such as the addition of new linings, electrical upgrade and the removal of a wall.

The cottage was one of many buildings used as married quarters, however, it is the only one remaining.

Characteristics	Comments
Address	Fort Scratchley, Signal Hill, Newcastle
Construction	c.1926
Style	Inter-War
Use	Residence, Newcastle Out of Works space
Level of Intactness	Good
Architect	unknown
Comments	This cottage is from a later period than the Shepherds Hill cottage and was used as married quarters. The building is also located outside the main fortifications. It is now used as an information centre by the Fort Scratchley Historical Society.



Figure 190: Master Gunner's Cottage at For Scratchley.

#### 7.3.4 Messenger's Cottage, Fort Phillip, Observatory Hill

The Messenger's Cottage at Fort Phillip (now Observatory Hill) (Figure 191 and Figure 192) was constructed for the purpose of providing accommodation for the messengers located at Signal Station. The cottage has a prominent central location on top of the hill, placed inside the northern alignment of Fort Phillip.

Designed of brick with a slate roof, the cottage was constructed in 1869-70. The brickwork of the cottage has been decoratively applied with several elevations including a diamond shaped pattern in a darker blue coloured brick. There are several ancillary structures to the rear.

The cottage was used as a residence until 1994 when the site was acquired by the Museum of Applied Arts and Sciences.

Characteristics	Comments
Address	Observatory Hill, Upper Fort Street, Millers Point
Construction	1869-70
Style	Federation cottage
Use	unknown
Level of Intactness	Good
Architect	unknown
Comments	This cottage was constructed during the period where British troops withdrew from Australia and therefore is a slightly earlier example of a cottage associated with a defence site. The cottage also has a decorative brickwork exterior which appears to be unique to the building and has not been seen in any other examples.



Figure 191: View of the Messenger's cottage at Observatory Hill. (Source: Google Maps 2015)



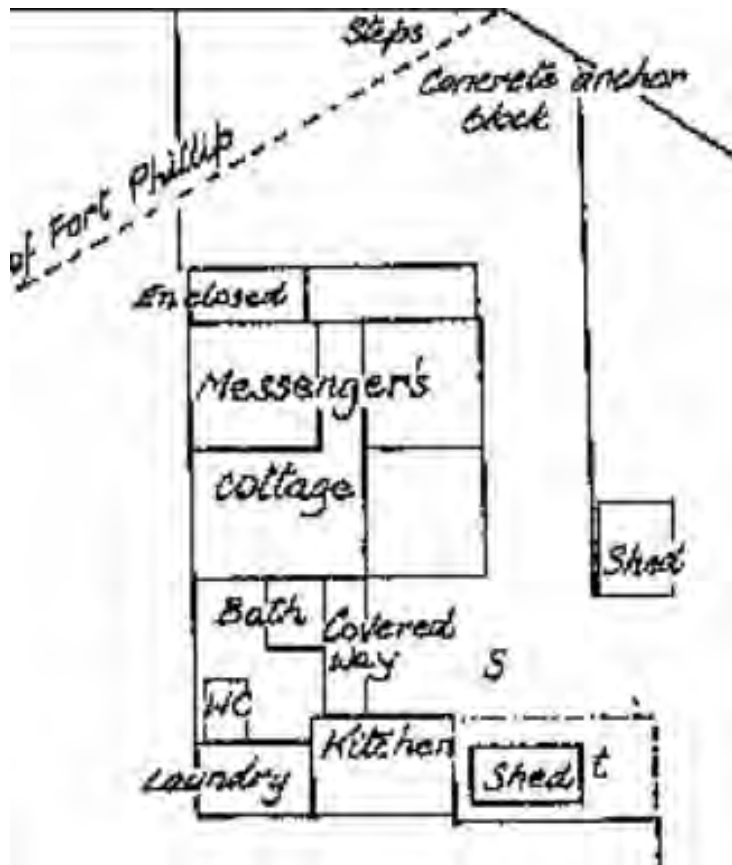


Figure 192: Detail from a sketch plan for Observatory Hill showing the general layout of the Messenger's cottage, 1991. (Source: Sydney Observatory, A Conservation Plan for the Site and its Structures, James Semple Kerr, for MAAS, 2002)

### 7.3.5 Cliff House, South Head

Cliff House (Figure 193) was constructed at South Head in 1876 along with three other buildings and was originally designated as a mess and barracks for single officers. It is located westward on a slope and is single storied, clad in weatherboards with flagstone foundations. The roof is hipped and clad in corrugated galvanised iron. The veranda has a separate roof and there are three chimneys constructed from sandstone with terracotta pots.

The house previously had a number of outbuildings that were subsequently removed. A bathroom was also added along with other rooms and the infilling of the rear veranda.

The house was refurbished in 1993.

Characteristics	Comments
Address	Hornby Light Road, HMAS Watson, Watsons Bay
Construction	1876
Style	Weatherboard cottage
Use	Mess and barracks for single officers
Level of Intactness	Good
Architect	unknown
Comments	This cottage pre-dates the Shepherds Hill cottage, however, is on a domestic scale and in a similar style. The weatherboard cladding and roof form are also of a similar architectural

character, however, this cottage appears to only partially include a veranda and has a more established sandstone and picket fence.

While Cliff House consists of only one storey, it is slightly larger and accommodated various single officers at one time, rather than just one officer and his family.



Figure 193: Cliff House as depicted in 1989. (Source: Woollahra Library, item no. pf002/pf002830)

### 7.3.6 Master Gunners Cottage, Middle Head

The Master Gunners Cottage at Middle Head (Figure 194 and Figure 195) is located towards the south-western entrance to Middle Head Road. The cottage was constructed in 1890-91 and is considered to be one of the most important dwellings constructed at Middle Head. It is also identified on the register of the National Estate and has recently been refurbished.

The Master Gunners Cottage at Middle Head is considered to be the most similar to the cottage at Shepherds Hill in regards to its period of construction, appearance and layout. According to the SoHI produced by John Carr for restoration works to the Shepherds Hill Cottage, the configuration of the Master Gunners Cottage at Middle Head and at Shepherds Hill are very similar, suggesting they may have been developed using a standard plan for Gunner's Barracks. Carr also notes the following:

*The layouts are basically the same with only a few differences that can be explained by minor alterations. Middle Head cottage has more verandah area and two porches. No physical evidence has been found to date for a verandah and porch to the southern elevation of the Shepherds Hill cottage. The lack of a stepped wall in Bed 3 of the Shepherds Hill cottage explains the gap to the ceiling lining boards in the Dining Room which was sheeted over by fibrous plaster and false beams in the 1920s makeover. The Bath and Sunroom 2 were added later as evidenced by the alterations to the roof and wall structures exposed as a result of removal of asbestos sheeting.*

*The layout shown in the Middle Head plan demonstrates how the original cottage could accommodate both the Master Gunner and the other Gunners in separate*

*accommodation/barracks under the one roof. This also explains the description of two Kitchen areas.*

Characteristics	Comments
Address	Building 6, 1100 Middlehead Road, Mosman
Construction	1890-91
Style	Weatherboard cottage
Use	Recently leased for commercial purposes
Level of Intactness	Good
Architect	unknown
Comments	<p>The Master Gunners Cottage at Middle Head dates from the same period as the Shepherds Hill cottage, and is on the same domestic scale. In addition, there are aesthetic similarities including the veranda, garden surrounded by a picket fence, weatherboard cladding and roof form.</p> <p>Internally, the cottage is highly intact and has been recently refurbished and converted for commercial purposes.</p>



Figure 194: External views of the Master Gunners Cottage at Middle Head. (Source: Real Commercial Website, <http://www.realcommercial.com.au/property-offices-nsw-mosman-501940382#>)

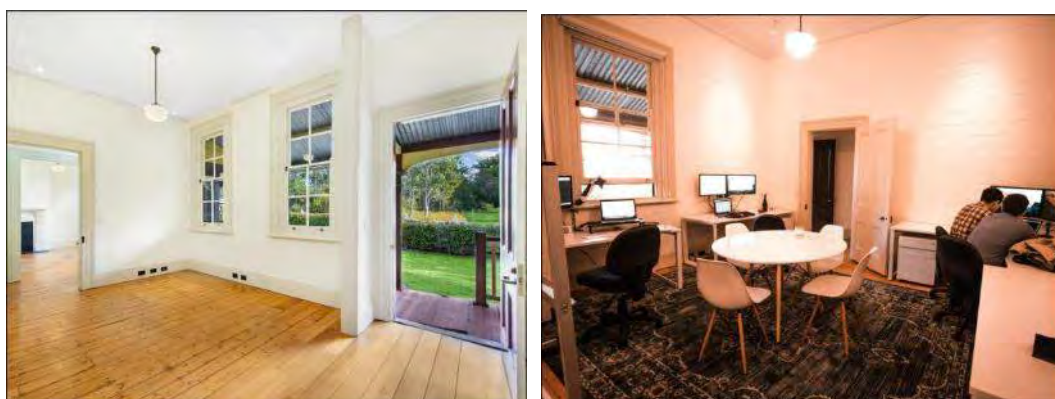


Figure 195: Internal views of the Master Gunners Cottage at Middle Head. (Source: Real Commercial Website, <http://www.realcommercial.com.au/property-offices-nsw-mosman-501940382#>)



## 7.4 Gun Emplacement and Tunnels

The installation of coastal defence systems were considered an important strategic military undertaking in order to protect coastal cities, ports and important waterways during the 19th century up until just after World War II.<sup>221</sup> As opposed to guns or cannons mounted on ships in the water, the installation of artillery along the coastline often provided better vision of potential threats and enabled more accurate firing (i.e. the land on which the artillery was been installed is more stable than water). One of the earliest known coastal artillery operations was installed by "the Turks" (the Turkish Army) in the 15th century in order to protect and defend the Dardanelles.<sup>222</sup>

The importance attributed to coastal defence sites often meant they were one of the first places where new technologies were employed. This was most certainly the case for the Shepherds Hill site, particularly when the disappearing gun was installed. By the 19th century coastal artillery operations were considered crucial and the most important coastal areas had coastal defensive artillery in place. With the development of new technological advancements in air and ground forces which could easily avoid coastal artillery, coastal defence sites became redundant.<sup>223</sup> As such, the following comparative analysis focuses on gun emplacements similar to those established at Shepherds Hill, dating from the 19th century up until World War II.

### 7.4.1 Smith's Hill Fort, Wollongong

The Smith's Hill Fort (Figure 196), located in North Wollongong, was constructed between 1892 and 1893 and consisted of three gun emplacements and associated underground tunnels and storerooms. The two northern emplacements were larger and contained 80 pounder rifled muzzle-loader guns, manufactured by the Royal Gun Factory in Woolwich in the United Kingdom. The southern emplacement contained a 1 1/2 inch Nordenfelt quick-firing gun, however, only the two northern guns still remain.

Each of the gun emplacements include wall recesses providing space for shells, cartridges as well as an area (casement) to provide protection for the gunners.

Located underground and associated with the gun emplacements towards the north is an underground magazine, cartridge store, ammunition store, workshop and lamp store. There is also a DRF station located towards the northern section of the site.

During the early 1900s the site was no longer in use by the military and by 1947 the tunnels had been infilled only to be excavated in 1988.

Characteristics	Comments
Address	Smith's Hill, North Wollongong, NSW
Construction	1892-1893
Use	Gun emplacement, now a park and historic site
Level of Intactness	Excellent
Architect	Unknown
Comments	This example of a gun emplacement and associated structures is highly intact and considered a rare example as it has retained two of the three guns that were originally positioned at Smith's Hill. As the site was decommissioned in the early 1900s, it was not used for defence purposes during World War II.

<sup>221</sup> Encyclopaedia of Britannica, "Coastal artillery," <http://www.britannica.com/technology/coastal-artillery>

<sup>222</sup> Ibid

<sup>223</sup> Ibid



Figure 196: Images of the Smith's Hill fort including the gun pits and the two guns that are still present. (Source: SHI for Smith's Hill Fort, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=2700117>)

#### 7.4.2 Henry Head Battery, La Perouse

The Henry Head Battery (Figure 197 and Figure 198) was constructed between 1892 and 1895 consisted of two gun emplacements that held BL 6-inch Mk V disappearing guns. There were also associated lookout posts used in conjunction with the gun emplacements and underground tunnels with double walls and ceilings which were installed to stop a collapse.

The site was used for military purposes and operated until 1910 before later being reused during World War II to defend Cape Banks. In 1942 when the site was recommissioned, two Mk IV field guns and two QF3 pounder Hotchkiss guns were installed.

The site was often used to support the fortifications located at Bare Island, La Perouse.

Characteristics	Comments
Address	Henry Head, La Perouse, NSW
Construction	1892 - 1895, some works in 1942
Use	Originally military site, now a National Park
Level of Intactness	Good
Architect	Unknown
Comments	The Henry Head Battery is an example from the same period as the Shepherds Hill gun emplacement, having been constructed in the 1890s after the withdrawal of British troops. The gun emplacements are missing their guns and there is a significant amount of graffiti present. The double thickness of the walls and ceilings is a unique element to the site. The gun pits are visible at ground level and are not buried within the ground.



Figure 197: Photograph of one of the Henry Head gun emplacements. (Source: Flickr, photographed by Paul Huynh, [https://www.flickr.com/photos/aph\\_pixels/15266916612](https://www.flickr.com/photos/aph_pixels/15266916612))



Figure 198: Interior view of the Henry Head tunnels. (Source: Photograph sourced from Urban Ghost Media, <http://www.urbanghostmedia.com/2014/07/henry-head-battery-botany-bay-military-bunker/>)

#### 7.4.3 Green Hill Fort, Thursday Island

The Green Hill Fort (Figure 199) is located on Thursday Island and was originally built between 1891-1893 for the purposes of defending against a possible Russian invasion and various other coastal threats that were apparent at the time. The fort was constructed as part of a network of coastal defence sites dotted along the NSW coast including Fort Scratchley, Kissing Point Fort in Townsville, Fort Lytton in Brisbane, Fort Nepean in Melbourne and Fort Glanville in South Australia.

Limited structures remain on the site as several buildings were demolished after the site was decommissioned in 1927. Originally, the site included a general storeroom, shell store, cordite room, lamp room and artillery store as well as five rooms used for ammunition storage.

The site was active during World War I and used as a signals and wireless station. The site was later used as a weather station in 1993 by the Bureau of Meteorology.



The gun emplacements and DRF stations appear to be the most intact elements remaining onsite.

Characteristics	Comments
Address	Green Hill, Thursday Island, Queensland
Construction	1891-1893
Use	Former military site, later used by the Bureau of Meteorology
Level of Intactness	Fair
Architect	Unknown
Comments	<p>The gun emplacements and DRF stations located onsite are relatively large and more prominently located with direct views to and from the water. A series of steps lead to the disappearing guns and behind these steps is a large open spaced area.</p> <p>Limited information could be found on the condition and configuration of the underground structures, however, it is understood the former ammunition store (underground) was used as a museum.</p>



Figure 199: Gun emplacement and DRF station at Green Hill. (Source: Photographs by Trevor Costin, 2011, via <http://www.ozatwar.com/bunkers/greenhillfort.htm>)

#### 7.4.4 Bare Island Fort, Botany Bay

As detailed in Section 7.2.1 (Figure 200), the Bare Island Fort (is located near the entrance of Botany Bay and was developed as a coastal defence site to control the entrance of unwanted visitors into the Bay. The site includes an emplacement with five guns and bomb proof tunnels that were constructed from concrete and later found to be faulty, resulting in the closure of the fort.

Characteristics	Comments
Address	Bare Island, Botany Bay
Construction	1881-1889
Use	Museum
Level of Intactness	Good
Architect	Designed by Scratchely with assistance from civil engineer Gustavus Morell and Colonial Architect James Barnet

Comments	Unlike Shepherds Hill, the Bare Island gun emplacements were located around the island to provide a 360-degree view of Botany Bay. However, due to the poor quality of concrete of the site the fort was only used for a short period of time and therefore is reflective of coastal defence requirements of the late 19th century.
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Figure 200: Detailed view of a gun pit at Bare Island. (Source: <http://www.sydney.com/destinations/sydney/sydney-east/attractions/bare-island>)

## 7.5 Battery Observation Post, Park Battery, no.1 gun and bunker and No.1 Searchlight

A battery or an artillery battery is a military unit of mortars, guns rockets and/or missiles used to assist in better battlefield communication between command and control, and also disperse the gun crews succinctly at strategic defence points. Historically, a battery referred to a cluster of canons guns and mortars etc. used in a temporary position during a siege or battle. In the 20th Century, batteries were more commonly referred to for the company level sub-unit of an artillery branch, which could include air and position (coastal) defences.

An observation post can either be temporary or fixed in position where soldiers watch for advancing enemies or to direct artillery fire from nearby batteries. Observation posts are positions from which soldiers watch and listen for enemy activity in a designated area. Observation Posts provide security and intelligence for the platoon/or battery. Observation Posts are normally designated to observe critical areas for the platoon or as the company commander directs.<sup>224</sup>

### 7.5.1 Battery Observation Post, Breakwater Battery, Port Kembla

Built in 1940, the Battery Observation Post at Breakwater was built on Hill 60, to the south, above red point (Figure 201). It was built as part of a network of coastal batteries dotted along the coastline with the purpose of providing protection for Newcastle and Port Kembla, two important port cities.

The overall design of the Breakwater Battery Observation Post was devised in order to create a residential apartment building appearance in the hopes that this would help disguise the building. The building is in the Functionalist style and consisted of a four storey brick and concrete structure a gun pill box and air raid shelter. It also had a range finding apparatus on the top level, searchlight control equipment and two floors that were used as officer's flats and known as 'the Palace.'

<sup>224</sup> Wilson, David S. 1996. Evolution of Artillery Tactics in General J. Lawton Collins' US VII Corps in World War II. Master's thesis, Army Command and General Staff Coll Fort Leavenworth KS.

The building is now used as a military museum.

Characteristics	Comments
Address	Gloucester Boulevard, Port Kembla
Construction	1940
Use	Former military site, signal station and now Historical Military Museum
Level of Intactness	Good
Architect	unknown
Comments	This Observation Post is somewhat unique having been specially designed so as to appear like a residential block of units rather than a military building. As such, it differs in appearance to the Observation Post at Shepherd's Hill and does not have the same stepped down appearance. It is also more decorative.



Figure 201: The Battery Observation Post designed to look like a block of units, located at Breakwater. (Source: SHI form for Historical Military Museum including Breakwater battery and concrete tank barriers,

<http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=2700585>)

### 7.5.2 Boora Point, Long Bay

Located on the Malabar Headland at Boora Point is another Battery Observation Post built in 1943 (Figure 202 and Figure 203). The BOP was constructed along with fortifications at Cape Bailly and Cape Banks, as first line coastal defence against the Japanese. Prior to its construction, there had been Japanese submarine activity within proximity to the coast with three minisubs entering Sydney Harbour in 1942.



The battery also included anti-aircraft guns, barracks and an electricity generating plant. There was no more activity from Japanese submarines and the battery were subsequently decommissioned after the war.

The searchlight is located separately to the BOP.

Characteristics	Comments
Address	Malabar Headland, Malabar, NSW
Construction	1943
Use	Former military site, now National Park
Level of Intactness	Fair
Architect	unknown
Comments	This BOP presents the same stepped down appearance as Shepherds Hill, however, does not have an addition towards the front section on the ground floor. The searchlight is not located within the building and is a separate structure. The window bars do not appear to be present and the overall form of the building is cube-like. Alike the Shepherds Hill BOP, the rear elevation of the building is relatively flat with limited detailing. Also constructed from concrete.



Figure 202: View of the Boora Point Observation Post. (Source: Visit Sydney website, <http://www.visitsydneyaustralia.com.au/little-bay.html>)



Figure 203: View of the Boora Point Searchlight. (Source: Visit Sydney website, <http://www.visitsydneyaustralia.com.au/little-bay.html>)

### 7.5.3 Battery Observation Post, Fort Scratchley

The Battery Observation Post located at Fort Scratchley (also known as the Battery Command Post) is located centrally within the fortifications and has expansive views east, north and south. The elevated position of the building also assists in the views to and from the building (Figure 204).

The building was originally constructed in 1914 and consists of a concrete blockhouse with a cantilevered flat roof. The original configuration included two stories with a single storey extension for equipment located to the south. This configuration later changed during World War II with the observation level being extended over the store area and a single store extension was constructed to the west.

Main access to the interiors of the building was via a steel ladder that lead to a manhole in the floor. A secondary access point was later created.

Characteristics	Comments
Address	Nobbys Road, Newcastle East, NSW, 2300
Construction	1914
Use	Museum
Level of Intactness	Good
Architect	unknown
Comments	This Observation Post was built during World War I and is therefore an earlier example. The structure is also bore cube--like with only one central window area to the top floor. The building does not have a stepped down appearance and is on a smaller scape to the Shepherds Hill BOP.



Figure 204: Fort Scratchley Battery Observation Post.

## 7.6 Conclusion

All sites examined above show similarities with the Shepherds Hill Defence Group Military Installations in terms of use and the type of buildings present onsite. However, there is not one site that directly reflects the same construction phases as Shepherds Hill with most coastal fortifications having been developed continuously or either during the late 19th century or early-mid 20th century only. As such, the Shepherds Hill Defence site as a group is considered to be a rare coastal defence site at state level of significance illustrating the importance of coastal artillery during the 19th century and the gradual decline in importance of coastal defence sites following the conclusion of World War II.

The site is also considered unique, having had all three forces occupy the site all at the same time during World War II. This does not appear to have occurred at any of the sites explored in this comparative analysis.

Individually, the various built elements located on the Shepherds Hill site are considered to be representative examples of their period.



## 8. Assessment of the Cultural Significance

### 8.1 Basis of Assessment

In assessing the cultural significance of a place it is necessary to adequately research and consider all the information relevant to an understanding of the place and its fabric. The Burra Charter (2013) defines the cultural significance as being “aesthetic, historic, scientific or social value for past, present or future generations”.

The assessment of cultural significance is undertaken because it is necessary to understand the values of a heritage item before making decisions about the future of the item. This then leads to decisions that will retain these heritage values in the future.<sup>225</sup>

The ‘Statement of Significance’ indicates what heritage values of a place should be conserved and is used as a basis for the formulation of specific guidelines for the development of conservation policies of a place. The Conservation Plan by J. S. Kerr (fifth edition, 2000, National Trust), considers the following three criteria as a useful starting point in assessing the nature of significance:

- ability to demonstrate a process, a custom or style;
- associational (historic) links for which there is or is not surviving physical evidence; and
- formal or aesthetic qualities.

The following assessment of significance addresses the criteria endorsed by the NSW Heritage Council and is in accordance with the NSW Heritage Manual ‘Assessing Heritage Significance’ guidelines.

### 8.2 State Historical Themes

The NSW Heritage Office developed a thematic framework for use in heritage assessment and management. It was thought that thinking about a place in terms of themes can help understand its significance. The organising principle for the thematic framework is the dynamism of human activity. This Framework identifies thirty-eight principal themes.<sup>226</sup>

The historical development of an area or item can be understood as occurring in a thematic way, with different layers representing progressively earlier themes.<sup>227</sup> In the case of the Shepherds Hill Defence Group Military Installations, there are numerous State themes reflected at the local level which relate to the foundation and development of the site as a coastal fortification. These are Communication, Environment – Cultural Landscape, Industry, Science, Technology, Town suburbs and villages, Defence, Utilities, Accommodation, Governing and Cultural life - Leisure. These themes are referred to within this CMP to guide future research questions, to interpret the history, and structure the narrative of the development within the context of the coastal defence sites and the local area. The table below describes these themes.

Australian Theme	NSW Theme	Comment
3. Economy – Developing local, regional and national economies	Communication – Activities relating to the creation and conveyance of information	The SHR item was historically located within a chain of communication between a number of defence sites located along the coast of Newcastle and NSW. This is particularly the case with the Battery

<sup>225</sup> NSW Heritage Manual, *Assessing Heritage Significance*, 2000, p.2

<sup>226</sup> Both the Australian Heritage Commission (national) and the NSW Heritage Office (state) have identified themes for research relating to places of heritage significance. These can be accessed from the NSW Heritage Branch website; <<http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/themes2006.pdf>>

<sup>227</sup> NSW Heritage Office, Heritage Information Series, *Historical Research for Heritage*, Baskerville, Bruce, (2000) p. 2.

3. Economy – Developing local, regional and national economies		<p>Observation Post during World War II.</p> <p>More recently, the site has been used to communicate the historical occupation of the site, through providing external access to visitors and some heritage interpretation.</p>
	Environment – cultural landscape – Activities associated with the interactions between humans, human societies and the shaping of their physical surroundings.	<p>The Shepherds Hill Defence Group Military Installations was an active defence site from the 1890s until World War II. Although it did not see any major action, the site was used at various stages by defence personnel, in particular for training purposes.</p> <p>The Cottage in particular was used as a residence for many years and most recently has been occupied by Marine Rescue NSW.</p> <p>Overall, the entire site within recent years has served as a pit-stop along the Bathers Way walk and is frequented by visitors.</p>
	Science – Activities associated with systematic observations, experiments and process for the explanation of observable phenomena	<p>The SHR item has been used for observation purposes at various different stages including during the 1890s (Gun Pit) and during World War II (Battery Observation Post).</p> <p>In more recent times, the Cottage been used by Marine Rescue NSW as a base for their activities.</p>
3. Economy – Developing local, regional and national economies	Technology – Activities and processes associated with knowledge or use of mechanical arts and applied sciences	<p>The gun pit formerly included a disappearing 8-inch gun that is no longer present, however, some of the mechanism used are still visible within the pit. When the gun was first designated for use at Shepherds Hill, it was considered to be a new and exciting technology, however, when it was finally installed the technology was considered somewhat out of date.</p> <p>The Battery Observation Post is evidence of 1940s wartime technology. All structures within the site including the gun pit, Battery Observation Post etc are evidence of the construction</p>

		technology for coastal defence sites from World War II.
4. Settlement – Building settlements, towns and cities	Towns, suburbs and villages – Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	<p>41 The Terrace was originally part of King Edward Park and was subsequently subdivided and allocated for defence purposes due to its prime location.</p> <p>It also reflects the growing need during the 1890s to establish systems for defending the coal port of Newcastle. The landscape has been shaped for defence purposes for a definitive period in the history of Newcastle.</p>
7. Governing	Defence – Activities associated with defending places from hostile takeover and occupation	As Newcastle had developed into an important coal port, the development of better defence systems along the coast was required. 41 The Terrace and its gun pit and cottage were subsequently developed in order to assist with protecting Newcastle and was later developed in the 1940s (Battery Observation Post), in light of the potential threat of invasion.
4. Settlement – Building settlements, towns and cities	Accommodation – Activities associated with the provision of accommodation, and particular types of accommodation – does not include architectural styles	<p>The Shepherds Hill Cottage was used as accommodation premises for the Master Gunner in the 1890s and was subsequently used as accommodation quarters during World War II. During the post war period it was leased to various individuals and eventually was leased out to Marine Rescue NSW.</p> <p>The gun emplacement was also used for a period of time as informal accommodation following damage caused to the Cottage in the early 20th century.</p>
8. Developing Australia's cultural life	Creative Endeavor – Activities associated with the production and performance of literary, artistic, architectural and other imaginative, interpretation or inventive works; and/ or associated with the production and expression of cultural phenomena; and/or environments	The Shepherds Hill Cottage was used for a period of time during the 1980s as an artist-in-residence space.



8. Developing Australia's cultural life	that have inspired such creative activities.	
	Leisure – Activities associated with recreation and relaxation	The Shepherds Hill Defence Defence Group Military Installation are part of the Bathers Way walk and are freely accessible to the public as a tourist destination (although some only visually accessible).

### 8.3 Assessment Criteria

The following assessment has been extracted, in full, from the SHR form for the Shepherds Hill Defence Group Military Installations.<sup>228</sup> Where no information was provided in the form, CPH has undertaken the necessary assessment. Sections extracted from the form are indicated in italics.

**a) an item is important in the course, or pattern, of the local area's cultural or natural history**

*The Shepherds Hill Group is historically significant at a state level because of its important role in the coastal defence of NSW. It was an important defence and Observation post for the state during the time of the Crimean War. Shepherds Hill Group formed an integral part of Newcastle's integrated defence system, and changes made to this system since the 1880s reflect the way that NSW defence policy responded to new threats as well as technological developments. It was also crucial that Newcastle be defended during periods of war, due to the fact Newcastle was an important industrial centre, that supplied munitions from the steelworks and beef (via the port) to the military during WW2. The Newcastle Steelworks formed an important part of the economy of NSW and were a significant part of the war effort. The surviving complex tells an important story associated with the course of Australian national history and is strongly evocative of the military defence of strategically important Australian places.*

*The site has a significant association with all three of the armed forces. It is also associated with Fort Scratchley, another highly significant defence site and the only place on the mainland of Australia that is known to have returned fire. This occurred when the city was under attack by a Japanese submarine in June 1942.*

Guidelines for Inclusion	✓ / X	Guidelines for Exclusion	✓ / X
▪ shows evidence of a significant human activity	✓	▪ has incidental or unsubstantiated connections with historically important activities or processes	X
▪ is associated with a significant activity or historical phase	✓	▪ provides evidence of activities of processes that are of dubious historical importance	X
▪ maintains or shows the continuity of a historical process or activity	✓	▪ has been so altered that it can no longer provide evidence of a particular association	X

**b) an item has strong or special associations with the life or works of a person, or group of persons, of importance in the local area's cultural or natural history**

The Shepherds Hill Defence Group Military Installations is associated with James Russell and Co. who designed the gun emplacements at 41 The Terrace. Russell worked on a number of defence projects and was in particular involved in the design of the fortification at Fort Scratchley.

The site is also associated with Royal Engineers Lieutenant Colonel Peter Scratchley and Colonel William Jervois who designated the site for military purposes. The SHR item is therefore evidence of their military planning efforts during the late 19th century and the importance of their planning and designing in protecting the colony.

The site is also associated with the various military people who occupied the site, in particular Master Gunner and Warrant Officer James Woollett who lived in the cottage with his family for a number of years while he was Master Gunner of Shepherds Hill and Fort Scratchley.

<sup>228</sup> State Heritage Inventory form for the "Shepherds Hill Defence Group Military Installations," accessed 28 August 2017 via <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5061075>

Guidelines for Inclusion	✓ / X	Guidelines for Exclusion	✓ / X
<ul style="list-style-type: none"> <li>shows evidence of a significant human activity</li> </ul>	✓	<ul style="list-style-type: none"> <li>has incidental or unsubstantiated connections with historically important activities or processes</li> </ul>	X
<ul style="list-style-type: none"> <li>is associated with a significant activity or historical phase</li> </ul>	✓	<ul style="list-style-type: none"> <li>provides evidence of activities or processes that are of dubious historical importance</li> </ul>	X
		<ul style="list-style-type: none"> <li>has been so altered that it can no longer provide evidence of a particular association</li> </ul>	X

**c) an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area**

*The site has aesthetic significance due to the impressive views it offers along the Newcastle coastline as a complex of structures and forms and which are highly evocative of war and coastal defence systems. The Gun Emplacement and Observation Post occupy a prominent position on a high vantage point adjacent to King Edward Park, Newcastle's major historic park. The solid and robust concrete forms are visible from within the park and make for a memorable counterpoint to the high Victorian architecture of the street called The Terrace to the immediate west. These physical elements provide the park with a sense of drama and interest. As a destination it is used as a venue for wedding pictures, artistic endeavours and photography of the coastline. The No 1 searchlight engine room and its tunnel at 65 Nesca Pde display a high degree of technical achievement and are in remarkably good condition for their 60 year age. The early 1960s period residential flat building that is built on the roof of the Searchlight engine room is an interesting example of building recycling for other nonrelated uses.*

Guidelines for Inclusion	✓ / X	Guidelines for Exclusion	✓ / X
<ul style="list-style-type: none"> <li>shows or is associated with, creative or technical innovation or achievement</li> </ul>	✓	<ul style="list-style-type: none"> <li>is not a major work by an important designer or artist</li> </ul>	X
<ul style="list-style-type: none"> <li>is the inspiration for a creative or technical innovation or achievement</li> </ul>	✓	<ul style="list-style-type: none"> <li>has lost its design or technical integrity</li> </ul>	X
<ul style="list-style-type: none"> <li>is aesthetically distinctive</li> </ul>	✓	<ul style="list-style-type: none"> <li>its positive visual or sensory appeal or landmark and scenic qualities have been more than temporarily degraded</li> </ul>	X
<ul style="list-style-type: none"> <li>has landmark qualities</li> </ul>	✓	<ul style="list-style-type: none"> <li>has only a loose association with a creative or technical achievement</li> </ul>	X
<ul style="list-style-type: none"> <li>exemplifies a particular taste, style or technology</li> </ul>	✓		

**d) an item has strong or special associations with a particular community or cultural group in the local area for social, cultural or spiritual reasons**

The Shepherds Hill Defence Group Military Installations are considered unique sites and are known as one of the only known coastal defence sites in Australia to have been manned during World War II simultaneously by the three forces (Royal Australian Navy, Army and Royal Australia Air Force). As such, the site is associated with the three forces and connected to the former servicemen and trainee artillerymen who were stationed at the sites.



The site has also been associated with Marine Rescue (formerly Royal Coastal Patrol), a volunteer based organisation that occupied the cottage from 2000 to 2015 when they were required to vacate due to damage caused by a storm that hit Newcastle in 2015.

The Shepherds Hill Defence Group Military Installations, in particular 41 The Terrace, are also considered important sites for the people of Newcastle, serving as a tourist attraction that form part of the Bathers Way walk.

Due to its proximity to King Edward Park and former inclusion in the park (originally designated for recreational purposes), 41 The Terrace is also associated with the Friends of King Edward Park, however, this is considered a secondary association.

Guidelines for Inclusion	✓ / X	Guidelines for Exclusion	✓ / X
<ul style="list-style-type: none"> <li>is important for its associations with an identifiable group</li> </ul>	✓	<ul style="list-style-type: none"> <li>is only important to the community for amenity reasons</li> </ul>	X
<ul style="list-style-type: none"> <li>is important to a community's sense of place</li> </ul>	✓	<ul style="list-style-type: none"> <li>is retained only in preference to a proposed alternative</li> </ul>	X

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

*The site is scientifically significant because the 8-inch Breach Loading Hydro Pneumatic Disappearing Gun emplacement in is an example of the developing technology during the latter years of the 19th Century. This has the potential to yield important information about changing military technologies in NSW. The No 1 Searchlight and tunnel retain a high degree of intactness. The structures have the potential to yield information relating to the construction techniques used at the time and the fortification of the coastline.*

The potential of the Shepherds Hill Defence Group Military Installations to yield information that will contribute to an understanding of NSW's cultural history is limited by the existing fabric. There are areas where archaeological work may increase our knowledge about the site, but these are relatively minor points in the broader context of NSW's history.

Guidelines for Inclusion	✓ / X	Guidelines for Exclusion	✓ / X
<ul style="list-style-type: none"> <li>has the potential to yield new or further substantial scientific and/or archaeological information</li> </ul>	✓	<ul style="list-style-type: none"> <li>has little archaeological or research potential</li> </ul>	X
<ul style="list-style-type: none"> <li>is an important benchmark or reference site or type</li> </ul>	✓	<ul style="list-style-type: none"> <li>only contains information that is readily available from other resources or archaeological sites</li> </ul>	X
<ul style="list-style-type: none"> <li>provides evidence of past human cultures that is unavailable elsewhere</li> </ul>	✓	<ul style="list-style-type: none"> <li>the knowledge gained would be irrelevant to research on science, human history or culture</li> </ul>	X

**f) an item possesses uncommon, rare or endangered aspects of the local area's cultural or natural history**

*The site is rare as it contains the only unmodified 8-inch Disappearing Gun Emplacement in NSW. This gun emplacement provides a rare example of the disappearing guns that were a new and fleeting development in military technology. Although other sites such as South Head had disappearing guns, these were replaced in the 1890s. Shepherds Hill is possibly unique in Australia because during WWII, it was simultaneously manned by the R.A.N, Army and R.A.A.F for a variety of functions. The tunnel system appears to be intact and in good condition and it may be one of only a few such fortifications surviving under a headland in Australia, with the exception of Fort Scratchley. The No 1 Searchlight engine room and its*

*100 metre long tunnel are rare surviving examples of the fortification of the coastline by the installation of a searchlight, high up on a sea cliff.*

Guidelines for Inclusion	✓ / X	Guidelines for Exclusion	✓ / X
▪ provides evidence of a defunct custom, way of life or process	✓	▪ is not rare	X
▪ demonstrates a process, custom or other human activity that is in danger of being lost	X	▪ is numerous but under threat	X
▪ shows unusually accurate evidence of a significant human activity	✓		
▪ is the only example of its type	✓		
▪ demonstrates designs or techniques of exceptional interest	✓		
▪ shows rare evidence of a significant human activity important to a community	✓		

**g) an item is important in demonstrating the principal characteristics of a class of the local area's**

- cultural or natural places; or
- cultural or natural environments

*Shepherds Hill is representative of the integrated coastal defence systems that was essential to the defence of NSW. Such an integrated system is also evident in the coastal defences of Sydney during the 19th and early to mid 20th centuries. Improvements in technologies allowed for both the Newcastle and Sydney coastal defence systems to communicate effectively.*

Guidelines for Inclusion	✓ / X	Guidelines for Exclusion	✓ / X
▪ is a fine example of its type	✓	▪ is a poor example of its type	X
▪ has the principal characteristics of an important class or group of items	✓	▪ does not include or has lost the range of characteristics of a type	X
▪ has attributes typical of a particular way of life, philosophy, custom, significant process, design, technique or activity	✓	▪ does not represent well the characteristics that make up a significant variation of a type	X
▪ is a significant variation to a class of items	✓		
▪ is part of a group which collectively illustrates a representative type	✓		
▪ is outstanding because of its setting, condition or size	✓		
▪ is outstanding because of its integrity or the esteem in which it is held	✓		

## 8.4 Gazetted Statement of Significance<sup>229</sup>

*The Shepherds Hill Group is historically significant at a State and possibly a national level, because its history forms an important part of the story of Australian coastal defences, spanning a six-decade period from the late 19th, to the mid 20th century. During this time, the site was a key defence post. Its history provides an insight into the way that NSW defence policy reacted to changing technologies, threats and types of warfare. During WWII, the fortifications at Shepherds Hill played a co-ordinating role in the defence of Newcastle. Defence of Newcastle during this time was of high significance to the state, because Newcastle had become an area of great strategic and industrial importance in NSW, with its steelworks and operational port. The majority of the state's shells were produced in Newcastle and it was also the site of the NSW Dockyards. In order to protect these productions, a new system of defence was undertaken, which included the strengthening of Fort Wallis and the construction of two new close defence batteries - Shepherd's Hill and Fort Scratchley. The defence system proved its worth when in June 1942, Newcastle was fired on by cruising Japanese submarines, and Newcastle gained the distinction of being the only place in Australia that returned enemy fire with the launching of guns from Fort Scratchley. The fact that the Shepherds Hill fortification was simultaneously manned by members of the Navy, Army and the Airforce for a variety of functions is rare, and possibly unique in Australia.*

## 8.5 Level of Significance

The *NSW Heritage Manual* 'Assessing Heritage Significance' guidelines describe the items or places of state significance as being significant to the people of NSW. The local significant is described as being significant to the people of local area.

In conclusion, the Shepherds Hill Defence Group Military Installations holds a High degree Local level of cultural significance in terms of historic, aesthetic, technical and social significance

Levels of Significance Table

NSW Heritage Assessment Criteria		Level of Significance	Degree
Criteria (a)	Historic	Local/State	High
Criteria (b)	Historic Association	Local/State	Moderate
Criteria (c)	Aesthetic	Local	High
Criteria (d)	Social	Local	High
Criteria (e)	Scientific/Archaeological	Local	Moderate
Criteria (f)	Rare	Local/State	High
Criteria (g)	Representative	Local/State	High

## 8.6 Ranking of Significance of Individual Areas and Elements

### 8.6.1 Basis of Ranking

The significance of the individual elements of the complex has been assessed and ranked to enable decisions on the future conservation and development of the site. The ranking has been based on the demonstrative ability of the existing fabric and its intactness or evocative

<sup>229</sup> State Heritage Inventory form for the "Shepherds Hill Defence Group Military Installations," accessed 28 August 2017 via <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5061075>



quality. The specific areas and the individual elements such as walls, doors and windows are all ranked based on significance.

Ranking of the individual components of the Shepherds Hill Defence Group Military Installations have been made as below. These definitions of heritage significance ranking are taken from the NSW Heritage Office publication 'Assessing Heritage Significance' from the NSW Heritage Manual, 2001:

<b>Exceptional</b>	Rare or outstanding element directly contributing to an item's local and State significance. High degree of intactness and original fabric association with early construction period.
<b>High</b>	High degree of intactness and original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.
<b>Moderate</b>	Altered or modified elements. Elements with little heritage value, but which contribute to the overall significance of the item.
<b>Little</b>	Alterations detract from significance. Difficult to interpret.
<b>Neutral</b>	New fabric associated with present use and does not detract from significance.
<b>Intrusive</b>	Later fabric or alteration which obscures or detracts from significant fabric or the overall significance of an item.

#### 8.6.2 Schedule of Significant Elements

The drawings included below assess the significance of each site and building component in relation to each element's established heritage significance.

It should be noted that the grading of significance shown on the following plans is not exhaustive and should be read in conjunction with the tables, which assesses fabric in relation to intactness.

As no drawings for the Park Battery, no.1 gun and bunker and Park Battery no.1 searchlight and bunker, tunnel and engine room the significance ranking of these structures are not covered in diagrammatical form. An indicative overall significance ranking plan has been provided.

In some circumstances, a dual ranking has been applied to a site element (e.g. High/Moderate). This dual ranking is clarified in the commentary section; however, is mostly applied where the overall ranking of an element is one ranking, while specific elements are considered individually to be of a different ranking (e.g. the overall ranking for the southern elevation is high; however, the sunroom infill is considered to be moderate)

The following tables explore each built element separately. Note, internal access was not provided to all areas of the site and as such, the following tables consider fabric that has been inspected to date.

### 8.6.3 Overall site plan

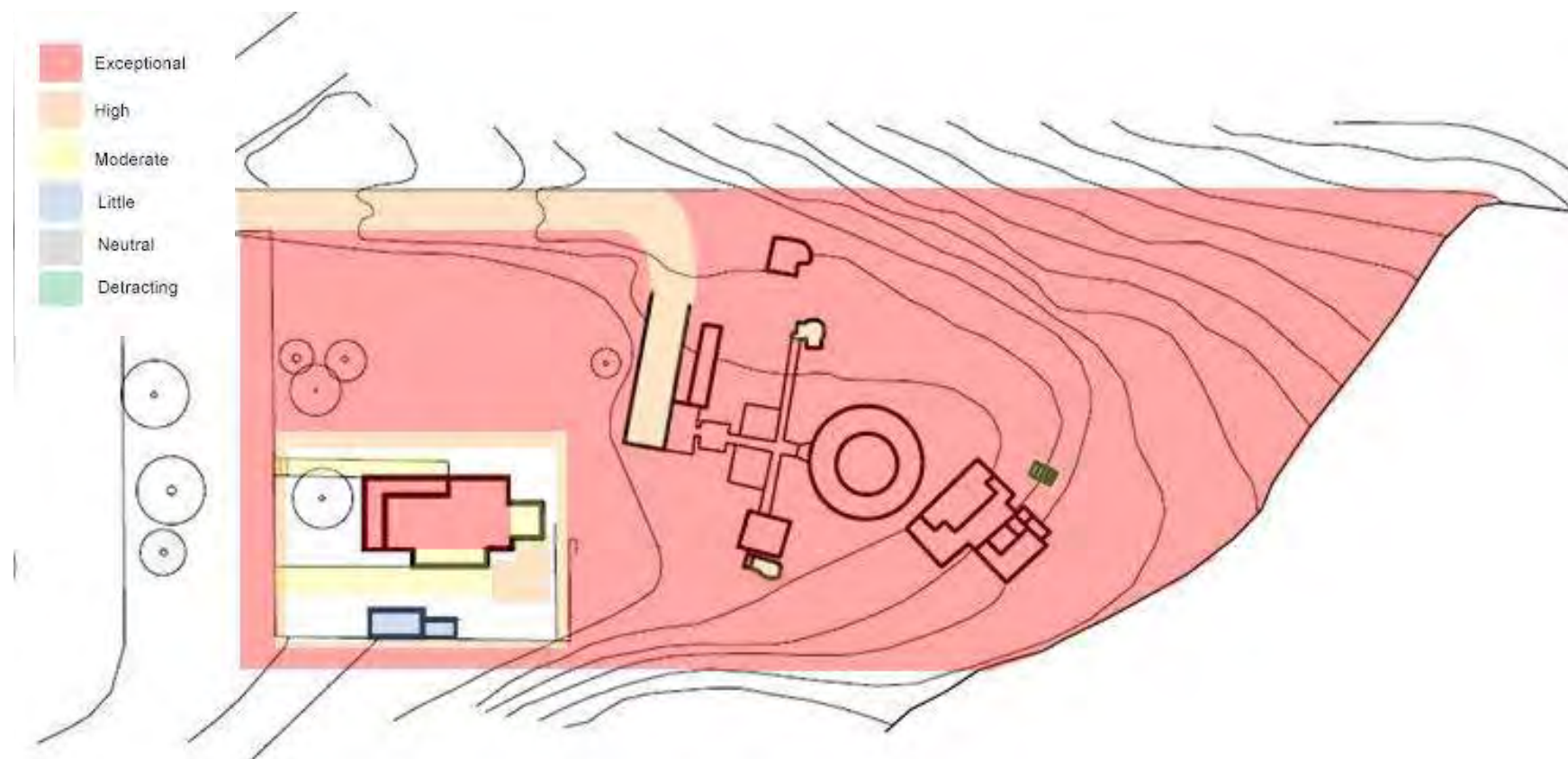








Figure 205: Site plan showing the overall significance ranking of each built element present on the site. For a detailed analysis of each built element, see the following illustrations. At this stage the significance of the cottage grounds could not be established. (Source: Plan based on drawings in *Shepherds Hill Cottage and Surrounds*, Conservation Study, Gardner Browne, 1984)

GROUNDS		
Building/ Site Element	Significance	Commentary and Photo
Garden		<p>Further investigation is required to ascertain the level of significance of the garden located within the grounds of the cottage.</p> 
Grounds	Exceptional	<p>The grounds at 41 The Terrace are of exceptional significance due to its location along the coast of Newcastle, topographical benefits and views. It is for these reasons the site was chosen for defence purposes.</p> 
Cottage Picket Fence	High	<p>While not considered original fabric, the style, timber material and finish of the fence is considered high and is compatible with the cottage and site generally. It reflects the residential character of the cottage.</p>
	Little	<p>The existing fence surrounding the Shepherds Hill cottage is a later addition and not original fabric. While it complements the site, its removal would not adversely impact on the significance of the site.</p>



Western and Southern Boundary Fence		
	Neutral	<p>These fences are considered of neutral significance as while they are a later addition, they do not detract and recess well into the landscape.</p>  
	Little	<p>While the safety fencing around the gun pit, tunnel entrance and DRF station is in place for safety reasons, they are a later addition and not considered of significance. Their removal would not adversely impact on the significance of the site. However, they are of a relatively simple design and do not detract.</p> 

#### 8.6.4 Cottage

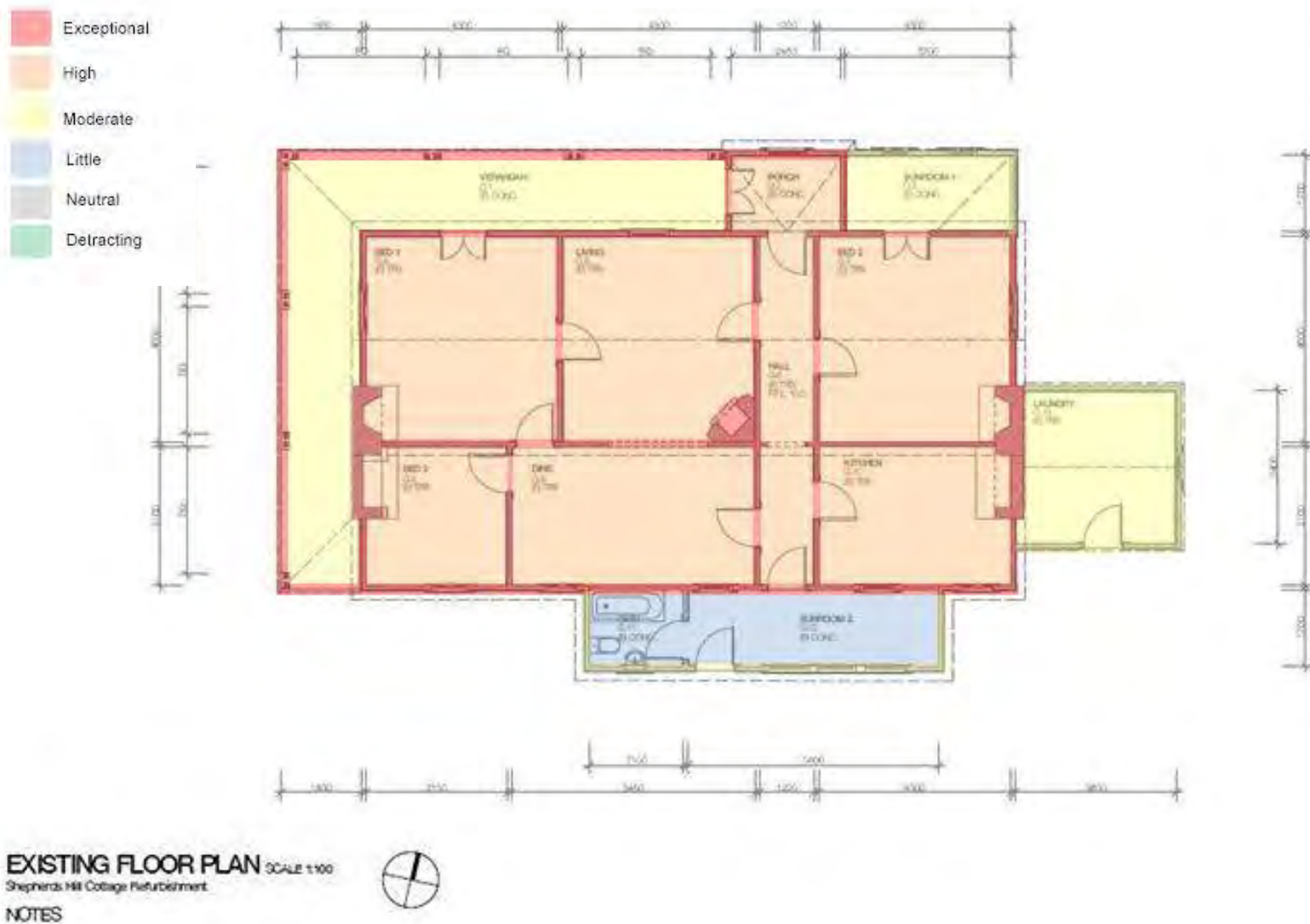


Figure 206: Floorplan for the cottage showing the significance ranking identified for each built element. (Source: Curran, existing floor plan, A100, revision A, 2 June 2017)

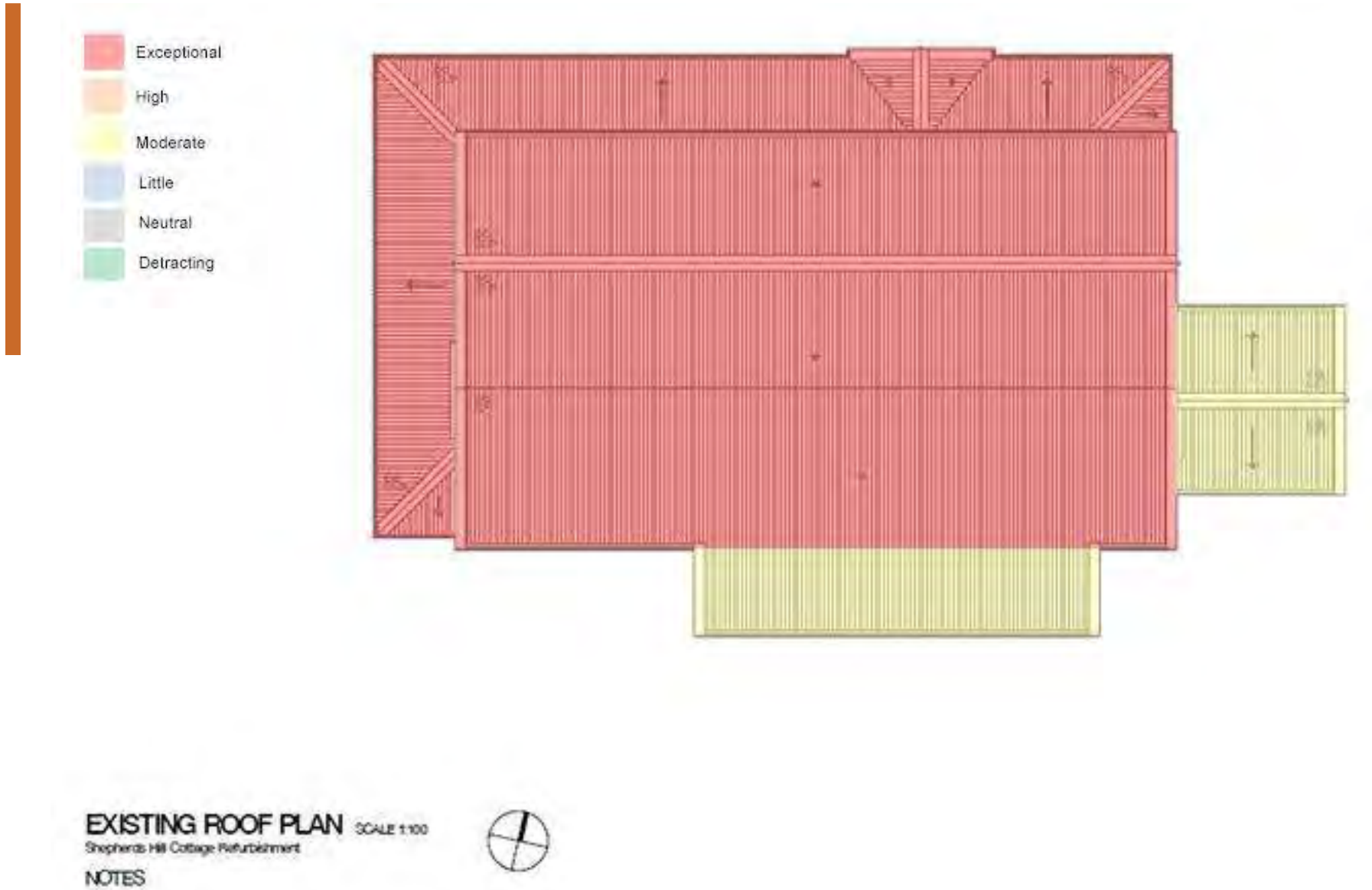


Figure 207: Significance ranking for the roof of the cottage. (Source: Curran, existing roof plan, A101, revision A, 2 June 2017)





**EXISTING NORTH ELEVATION** SCALE 1:100  
Shepherd's Hill Cottage Refurbishment



**EXISTING EAST ELEVATION** SCALE 1:100  
Shepherd's Hill Cottage Refurbishment

Figure 208: Significance ranking for the northern and eastern elevations of the cottage. (Source: Curran, existing north and east elevations, A400, revision A, 2 June 2017)



**EXISTING SOUTH ELEVATION** SCALE 1:100  
Shepherds Hill Cottage Refurbishment



**EXISTING WEST ELEVATION** SCALE 1:100  
Shepherds Hill Cottage Refurbishment

Figure 209: Significance ranking for the southern and western elevations of the cottage. (Source: Curran, existing south and west elevations, A401, revision A, 2 June 2017)

## COTTAGE - EXTERIOR

Building/  
Site  
Element

Significance

Commentary and Photo

Northern  
Elevation

Exceptional

The overall external form, configuration and materials of the northern elevation are relatively intact and original (c.1890) despite the alterations and additions conducted such as the enclosure of the entrance gablet and the north-eastern sunroom/ veranda enclosure (c.1958). Of particular note are gabled roof, gablet entrance, turned timber posts, veranda and weatherboards.

Note this elevation has been impacted by the modifications made and the loss of the three chimneys. The roof skin (corrugated metal sheeting, is also a later addition.

The windows to the entrance and north-western sections of this façade are original and of exceptional significance.



Moderate

The north-eastern sunroom section is a later addition and has been created through the enclosure of this section of veranda. In addition, windows boarded up. While these are later additions and intrusions, they are considered of moderate significance as they provide evidence of the changes that have been made to the cottage to accommodate its various owners etc.

The windows to the sunroom addition are of later moderate fabric.

In addition, while the laundry is a later addition, it provides evidence of the changes made to the cottage to accommodate various owners. It is also considered a typical service outbuilding.



## COTTAGE - EXTERIOR

Building/  
Site  
Element

Significance

Commentary and Photo

Southern  
Elevation

Exceptional

The overall external form, configuration and materials of the southern elevation are relatively intact and original (c.1890) despite the alterations and additions conducted such as the enclosure of the entrance gablet and the south-eastern sunroom/ veranda enclosure (1930s). Of particular note are the original sections of the gabled roof turned timber posts, veranda and weatherboards.



Eastern  
Elevation

Exceptional

The original eastern elevation is considered exceptional, however, is partially obscured by the later laundry addition. The circular vent also appears to be a later addition with early photographs seen in Figure 247 showing the northern façade with not vent present.

## COTTAGE - EXTERIOR

Building/  
Site  
Element

Significance

Commentary and Photo



High

The southern elevation has also been modified and includes two later extensions towards the eastern end including the laundry, additional window to the kitchen and Sunroom/ bathroom extension. This extension covers the original southern façade which is only visible internally. Windows boarded up and a later addition except for a few windows to the south west.

The extended roof section to facilitate the Sunroom/ bathroom addition involved modification of the original gabled roof form and is also considered of moderate significance.



Moderate

The eastern elevation predominately consists of extensions made to the original section of the cottage including the laundry and north-eastern sunroom addition. The roof to the south, which can be seen from this elevation, is also a later addition and the chimney has been removed, although the breast remains.

## COTTAGE - EXTERIOR

Building/  
Site  
Element

Significance

Commentary and Photo



Western  
Elevation

Exceptional

The overall external form, configuration and materials of the western elevation are relatively intact and original (c.1890) despite the alterations and additions conducted which are partially visible from this elevation. This includes the enclosure of the entrance gablet and the north-eastern sunroom/ veranda enclosure (c.1958) and the sunroom extension to the south (c.1930). Of particular note are gabled roof, turned timber posts, veranda and weatherboards. It is a primary elevation, facing The Terrace.

The three chimneys which were once visible from this elevation, are no longer extant, which has reduced the profile of the cottage from this elevation. The windows have been boarded up.



Moderate

The later additions that are visible from this elevation are considered of moderate significance and can only marginally be seen. The circular vent in the gable end is also a later addition, having been installed post 1976 (Figure 247).

Veranda

Exceptional

The form, materials and configuration of the veranda is considered to be high as it is original fabric dating from the 1890s.



## COTTAGE - EXTERIOR

Building/  
Site  
Element

Significance

Commentary and Photo

Moderate

It is unclear if the concrete flooring to the veranda is an original finish, however, the fabric does not appear to be original. Infilling of the veranda has occurred towards the north-eastern corner. The corrugated metal roof skin is a later addition.



Out  
Building

Little

The ancillary out building/ toilet is a later addition dating from c.1890, the original construction. However, modifications have been made to the structure and have impacted on original fabric. The structure now contains toilet facilities from the 1990s.



## COTTAGE - INTERIOR

Building/ Site  
Element

Significance

Commentary

Photo

Entrance Portico/  
Sunroom 1

Moderate

The internal entrance area is considered moderate externally.




## COTTAGE - INTERIOR

Building/ Site  
Element

Significance

Commentary

Photo

Hallway		Although it was later infilled, evidence of the original northern elevation, front door and veranda configuration still remains (1890).	
	Little	The portico entrance has been modified significantly as a result of asbestos removal works conducted and damage caused by the April 2015 storm. As seen in the picture to the right, the wall dividing the enclosed veranda section has been removed and only the timber frames remain. The infill also dates	
	Exceptional	The configuration and detailing dates from the 1890s original construction period. This includes the skirting, picture rails, door frames, corbels, cornices and architraves. These elements are all considered exceptional.	
	High	The internal space is ranked high. As with the portico entrance, the hallway has been modified as a result of the April 2015 storm and asbestos removal works. Picture rails and skirtings have been removed and ceiling	

# COTTAGE - INTERIOR

Building/ Site  
Element

Significance

Commentary

Photo

Living Room

Exceptional

The configuration of this room has been retained and relates to the original 1890 construction period of the cottage. The overall space is therefore ranked as being of Exceptional significance.



High

As above, the picture rails have been removed and ceilings and walls are in a poor condition. Very little original fabric is present with the majority of finishes dating from the 1920s.

Bedroom 1

Exceptional

The configuration and detailing is considered original, dating from c.1890. The fireplace is also original.



High

The space is considered of high significance. As above, the dado rails, skirting and cornices have been removed. Considering the loss of the two chimneys, the fireplaces are no longer in use.

Bedroom 3

Exceptional

The configuration and detailing are original dating from c.1890. The finishes and fixtures also date from



# COTTAGE - INTERIOR

Building/ Site  
Element

Significance

Commentary

Photo

Dining Room

High

this period. Of particular notes are the timber boards.

The space is considered of high significance. The window in this room remains relatively intact, however, the window panes appear to be new.



Exceptional

The configuration and layout of the Dining Room is original, dating from c.1890 and considered of exceptional significance.



High

The finishes and fixtures to this room were modified in the 1920s including skirting and picture rails. Severe damage to the ceiling has resulted in the loss of decorative detailing. Skirting and picture rails have been removed and have been stacked in the room.



Bathroom/  
Sunroom 2

Exceptional

The original northern wall within this space dates from c.1890 and is of exceptional significance.



Moderate

The configuration and external fabric to this space dates from the 1930s and is considered of moderate significance. This ranking is because the structure reflects changes made to the site to accommodate occupants and owners. The fabric itself is not



# COTTAGE - INTERIOR

Building/ Site  
Element

Significance

Commentary

Photo

Bedroom 2

Little

of note and would not adversely impact on the overall significance ranking if removed.

There is little fabric internally of note. The interior space is not considered of significance.  
Severe damage to the ceiling has resulted in the loss of decorative detailing. Skirting and picture rails have been removed and have been stacked in the room.

Exceptional

The configuration is of exceptional significance, having remained the same since original construction in c.1890. The fireplace is also original.



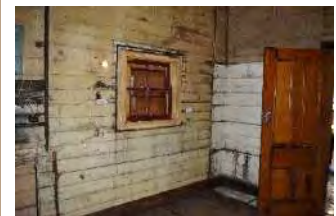
High

The space is generally ranking as high along with the interior finishes and fixtures (except for the fireplace), which date from the 1920s. Skirting and dado rails have been removed and require reinstatement.

Kitchen

Exceptional

The configuration and detailing date from c.1890 and are original, therefore ranked as exceptional.



High

The space is generally ranked as high as there is very little original fabric present as a result of damage caused by the storm

## COTTAGE - INTERIOR

Building/ Site  
Element

Significance

Commentary

Photo

Laundry

and asbestos removal  
works.

The interiors of this  
room was not assessed  
as no access was  
provided.

No photograph available,  
access not provided to this  
element.

### 8.6.5 Gun emplacement

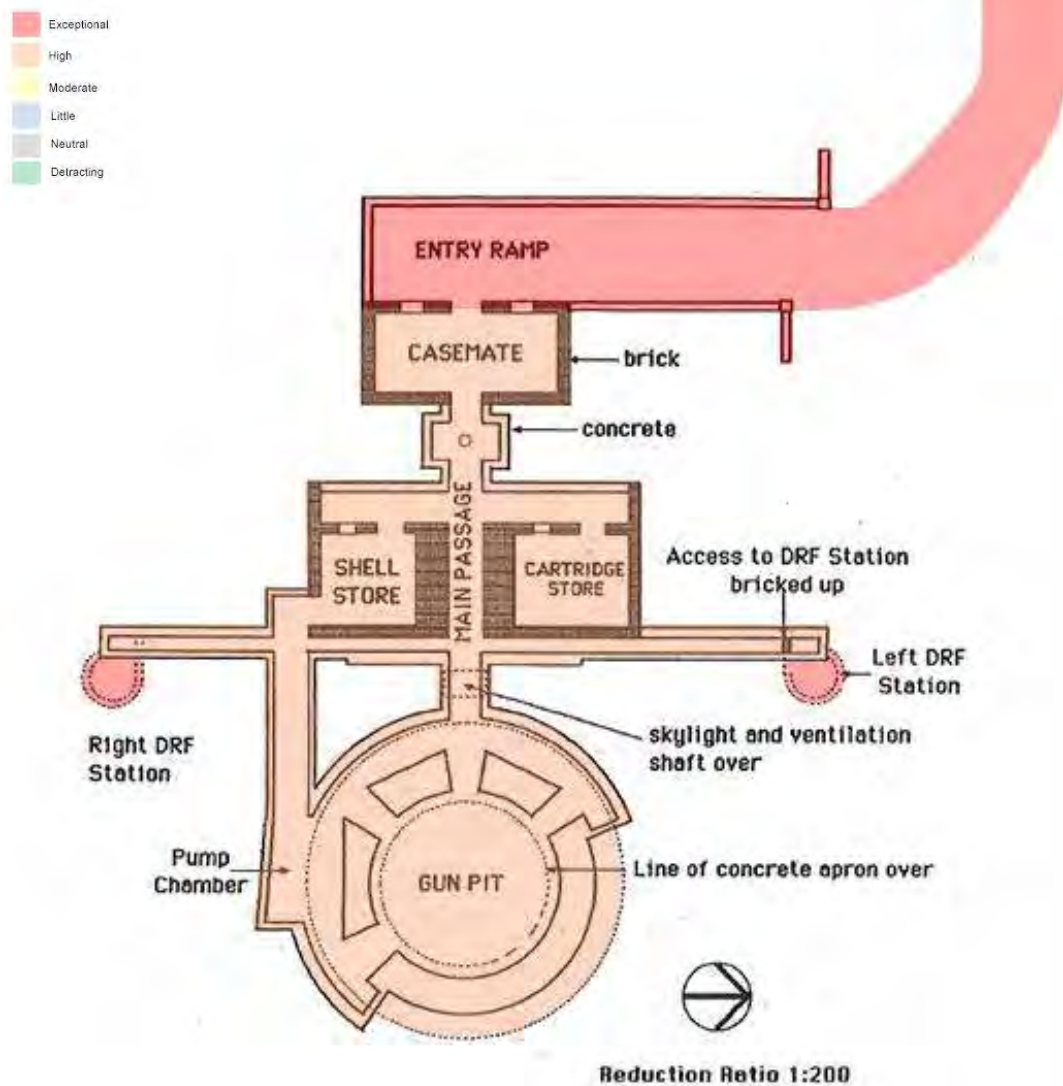








Figure 210: Diagram of the gun pit and associated above and underground structures showing the significance ranking of each element. (Source: Shepherds Hill Cottage and Surrounds, Conservation Study, Gardner Browne, 1984)



GUN EMPLACEMENT AND SURROUNDS (Elements that are ranked as being of Little significance date from the mid to late 20th century)

Building/ Site Element	Significance	Commentary	Photo
Gun Pit	Exceptional	While the original disappearing gun is no longer present along with the mechanics to operate it, the fabric remaining in the gun pit is original. The safety railing surround the gun pit at ground level is a later addition.	
Tunnel Entrance	High	The paved area directly outside the entrance is original fabric. The driveway layout appears original. The brick paving in this area is similar to the paving seen around the cottage.  While the fabric of the main driveway is later, the configuration and location is original.	
Vent	Exceptional	As with the gun pit, this above ground vent is original while the safety railing is a later addition. Some of the surrounding concrete may also be a later addition.	
Left DRF Station	High	The left DRF station is partially infilled with rubble and other materials which has raised the depth of the pit. The concrete walls are original while the protective railing is a later addition.	

GUN EMPLACEMENT AND SURROUNDS (Elements that are ranked as being of Little significance date from the mid to late 20th century)

Building/ Site Element	Significance	Commentary	Photo
Right DRF Station	High	As above.	
Tunnels - General	Exceptional	It is evident that they are relatively unchanged, however, have been significantly impacted by graffiti and the walls have somewhat deteriorated. The original layout appears to be relatively intact.	

#### 8.6.6 Battery Observation Post

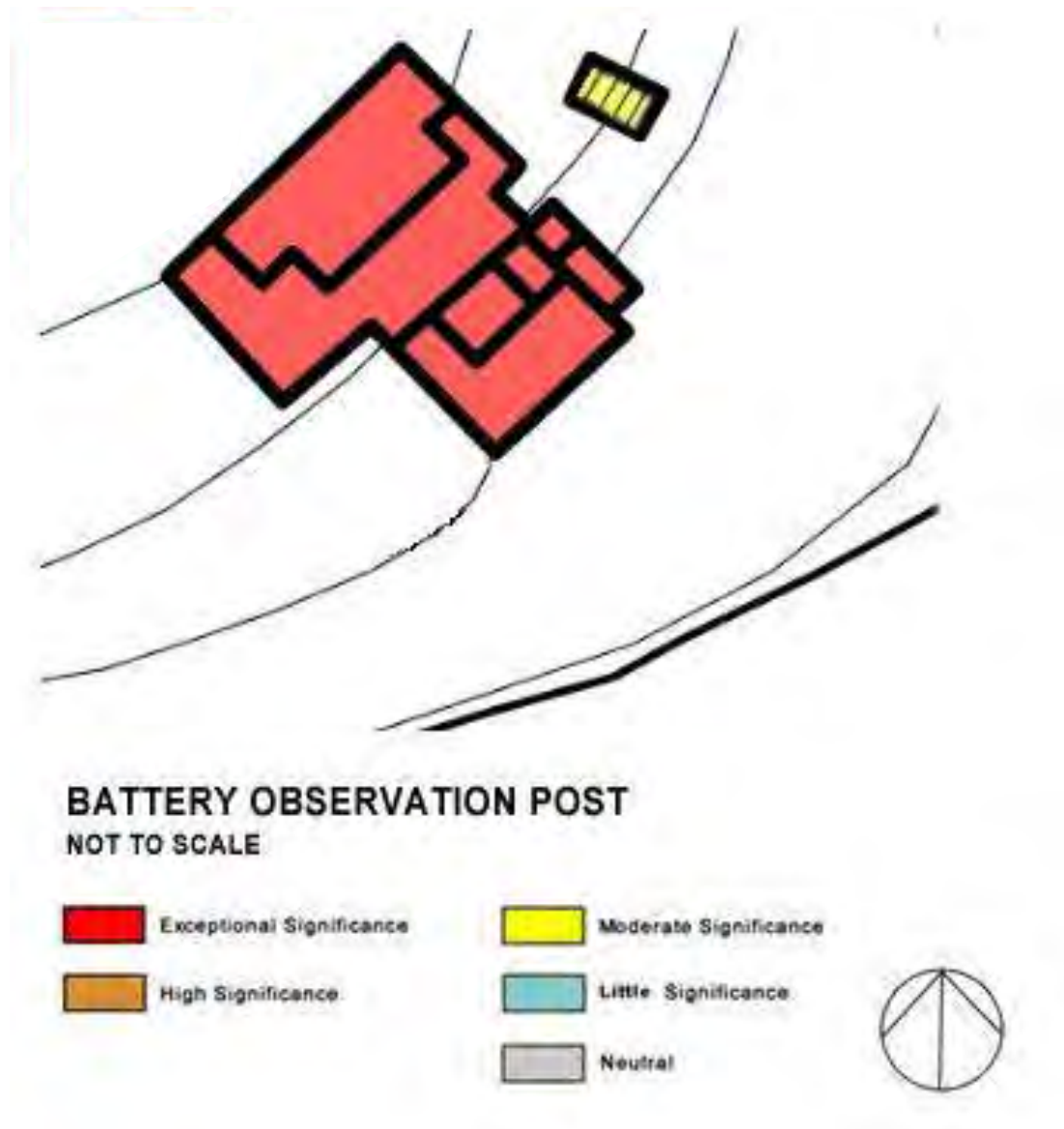


Figure 211: Plan for the Battery Observation Post showing the significance ranking of the building. (Source: Plan by CPH based on drawings in *Shepherds Hill Cottage and Surrounds*, Conservation Study, Gardner Browne, 1984)



## BATTERY OBSERVATION POST










Building/ Site Element	Significance	Commentary	Photo
Northern Elevation	Exceptional	Original fabric, does not appear to have been altered.	
Southern Elevation	Exceptional	Original fabric.	
Eastern Elevation	Exceptional	Original fabric, does not appear to have been altered except for the addition of the searchlight and Battery Observation Post for the Park Battery (eastern section) which was added in 1942.	
Western Elevation	Exceptional	Original fabric.	
Internals	Exceptional	Limited internal access was provided; however, these rooms appear to be unchanged and in their original configuration. There does not appear to be any remnant fabric from occupation by the three forces.	



Figure 212: Aerial view showing the approximate location of the Park Battery, no.1 gun and bunker and Park Battery no.1 searchlight and bunker, tunnel and engine room. While access could not be gained to these structures. (Source: SIX Maps accessed 24 August 2017 via <https://maps.six.nsw.gov.au/>)

Park Battery, no.1 gun and bunker

Building/ Site Element	Significance	Commentary	Photo
Southern Elevation	High	While somewhat obscured from view due to the vegetation surrounding the Park Battery, no.1 gun and bunker Structure, the southern elevation remains intact and relatively unchanged excluding the contemporary graffiti present. It reflects the simple design employed to reduce the prominence of the structure from the sea although is less descriptive than the other elevations. It is therefore considered to be of High significance.	
Northern Elevations	High	As with the southern elevation, the northern elevation is partially obscured by vegetation, remains intact and is relatively simple in design. Graffiti is also present. It is considered of High significance as it is less descriptive than the other elevations.	
Eastern Elevation	Exceptional	The eastern elevation is partially open and provides visual and physical access to the interiors of the structure. Of particular note is the flat roof form and clean simple geometric lines.	
Western Elevation	N/A	The western elevation of the structure is imbedded in the cliff face and therefore cannot be viewed or accessed.	No photo available.
Roof	Exceptional	The roof structure is relatively intact and does not appear to have been modified, although is overrun with vegetation. Of particular note is the sweeping views along the coast that can be gained from the roof.	
Interior	High	The interiors of the Park Battery, no.1 gun and bunker have retained some evidence of its previous use and is still relatively intact; however, machinery and instruments dating from its use have since been removed. Contemporary graffiti is also present.	



Park Battery, no.1 gun and bunker

Building/  
Site  
Element

Significance

Commentary

Photo



Grounds

Exceptional

The grounds of the Park Battery, no.1 gun and bunker are of exceptional significance due to its location along the coast of Newcastle, topographical benefits and views. It is for these reasons the site was chosen for defence purposes.

Memorial Drive Structures (overall significance ranking, desktop assessment only)

Building/  
Site  
Element

Significance

Commentary



Photo

Searchlight  
Engine  
Room


High

The Searchlight Engine Room is evidence of the efforts conducted during World War II to protect Newcastle from foreign threats. While a full assessment of the structure has not been possible, it is considered to be of high significance, having been modified significantly when the 1960s apartment building was constructed above. The integrity of the structure has therefore been slightly diminished.

Memorial Drive Structures (overall significance ranking, desktop assessment only)

Building/ Site Element	Significance	Commentary	Photo
Tunnel			
	Exceptional	The internal tunnel running under Memorial Drive is considered of exceptional significance for its historical association with the No.1 Searchlight and prominent location.	
No.1 Searchlight	Exceptional	The No.1 Searchlight is considered of exceptional significance due to its prominent location, views possible along the coast and to the sea and its association with other defence structure constructed during World War II. In addition, the simple geometric design and concrete construction is considered of particular note, reflecting the requirements of defence structures at the time.	

## Memorial Drive Structures (overall significance ranking, desktop assessment only)

Building/ Site Element	Significance	Commentary	Photo
Grounds			
	Exceptional	The grounds of the No.1 Searchlight are of exceptional significance due to its location along the coast of Newcastle, topographical benefits and views. It is for these reasons the site was chosen for defence purposes.	
	Little	The grounds of the Searchlight Engine Room have been significantly modified, having been developed for residential purposes. The context of the Searchlight Engine Room and the setting as therefore been lost.	

## 9. Constraints, Issues and Opportunities

### 9.1 Introduction

The development of a conservation policy is an essential requirement for making decisions about the future of the place.<sup>230</sup> Future development of the place is dependent upon the permissible uses and changes as determined by statutory regulations and current heritage management principals, in consultation with stakeholders. Policies should provide practical guidelines for the future management and conservation of the place for the short and long term. The policies are set out in Section 10 of this document.

This section of the report will highlight the site's main constraints and opportunities that will need to be considered in the future management of the site.

### 9.2 Constraints arising from Significance

The Shepherds Hill Defence Group Military Installations has been assessed as being a heritage item of local and state significance and its significance warrants its protection and conservation for future generations. The following constraints and opportunities arise out of the Statement of Significance of the site detailed in Section 8.4.

The grading of significance identifies items of Exception, High and Moderate significance. Elements graded as Exceptional and High should be conserved, maintained and reinstated in their original detailing, when known. These meet the requirements for State listing.

<sup>230</sup> Australia ICOMOS, *Guidelines to the Burra Charter: Conservation Policy*, 1999, section 1.3.



Items of Moderate significance provide some heritage values and make a contribution to the overall significance of the site. These fulfil the criteria for heritage listing as a whole within the site but not individually.

### 9.3 Constraints arising from Physical Condition

There are some constraints arising from the structural condition of the cottage, Battery Observation Post and gun emplacement and surrounds in so far as limited maintenance and conservation works have been undertaken to these structures. The cottage, having been damaged in a storm that occurred in April 2015, is currently undergoing conservation and repair works, and once the works are completed, can be easily adapted for new uses.

The Structural Engineer's report (12.8Appendix H - Structural Engineer's Report, Mott MacDonald), prepared by Alex Been of Mott MacDonald, explores in detail the structural integrity of the various built elements present on the site. The following points summarise the conclusions made in the report for each structure:

- The report indicates that the cottage is in a good condition structurally, with only a few minor defects identified. However, the damage to the roof which has resulted in large open areas, will cause rapid deterioration and as such, some replacement of framing may be required for the roof;
- Similarly, the gun pit and tunnels were identified as having only minor issues such as surface corrosion of exposed steel and small areas of reinforcement corrosion and concrete spalling;
- The two DRF stations are considered reasonably stable, however, there are some large cracks and missing capping to the pit walls. Some of the rubble contained within the pits is likely some of the missing capping;
- The above ground DRF station has typical minor defects to the concrete while the steel frame is severely corroded. This corrosion has resulted in lost sections which are impacting on the frame at critical points. If not treated, the steel frame will continue to corrode and will eventually collapse;
- The Battery Observation Post is in a poor condition. The main issues relating to the structural condition of the Battery Observation Post includes the following, some of which may result in structural failure in some areas:
  - The erosion of land around has undermined the structure;
  - The lowest level floods when there is rain may be the result of poor/ inadequate internal and external drainage or a blockage;
  - Corrosion of steel reinforcement;
  - Spalling of concrete;
- In addition to the constraints arising from the degraded physical condition of the concrete and steel structures on Shepherds Hill, the exposed clifftop location also poses environmental constraints in the form of coastal erosion and invasive plant species.

These issues will need to be rectified before the structures can be adaptively reused for other purposes. Depending on the future uses, they may require upgrading and modifications to comply with the current Building Code of Australia standards.

Existence of asbestos within these structures may also prevent implementation of some uses.

For further information, reference should be made to the Structure Engineer's report (Appendix H - Structural Engineer's Report, Mott MacDonald) and the Schedule of Conservation Works (Appendix B - Schedule of Conservation Works).

## 9.4 Obligations Arising from the Burra Charter

The development of the conservation policy should be consistent with the principles, terminology and methodology of the Australia ICOMOS *Burra Charter* (The Charter). The Charter gives guidance on when each degree of change to the fabric is appropriate.

The articles of the *Burra Charter* relevant to developing policy and guidelines for any future work undertaken to the Shepherds Hill Defence Group Military Installations are Articles 2-34 (see Appendix C - Long Term Maintenance Plan - Structures Appendix A - Australia ICOMOS *Burra Charter*, 2013):

Particular measures relevant to the site have been identified and included below:

- The maximum amount of significant fabric, uses, associations and meanings should be preserved and conserved. (Article 3)
- Works to the fabric should be planned and implemented taking into account the relative significance of the elements of the place. Unavoidable intervention should be carried out on elements of lesser significance in preference to those of higher significance. Alterations to interior spaces, such as obscuring or removal of original finishes, partitioning or construction of new openings and installation of new services should be carried out in spaces of lesser significance to those of higher significance. (Article 5.2)
- Uses should, if possible, be related to the cultural significance rather than uses that do not take advantage of the interpretative potential of the place. (Article 7).

## 9.5 Obligations arising from Statutory and Non-Statutory Authorities

The following section discusses constraints, opportunities and issues arising from the statutory and non-statutory requirements in summary and includes only the sections relevant to the Shepherds Hill Defence Group Military Installations. This will guide the development of conservation policies and the future development of the site.

### 9.5.1 Commonwealth Government Level

#### **Building Code of Australia**

The Building Code of Australia sets out minimum construction standards for all new building work undertaken in Australia and specifies the requirements for building constructions issued under the Local Government Act.

An assessment of compliance was not part of the scope of this Plan, therefore an assessment of compliance will need to be undertaken for BCA requirements in terms of fire resistance, access and egress (including provisions for people with disabilities), services and equipment and health and amenities as part of the future adaptive reuses of the site and its built elements individually. In general, when considering the BCA for new works within the heritage buildings, proposals must ensure that significant fabric and spatial qualities are not compromised while full BCA compliance is achieved and users' safety is assured.

The buildings will require changes for compliance with the requirements of the BCA 2013 and the Disability Discrimination Act depending on its future use. The most significant fabric of the building is generally exterior, and therefore maintaining the significant fabric as much as their condition allows will be relatively easy to implement in upgrading the site to the current BCA standards.

#### **Environment Protection and Biodiversity Conservation Act, 1999**

The Commonwealth Heritage List is a list of natural, Indigenous and historic heritage places owned or controlled by the Australian Government under the Environment Protection and Biodiversity Conservation Act, 1999. It includes places connected to defence, communications, customs and other government activities that also reflect Australia's development as a nation.

New Commonwealth heritage legislation came into effect in January 2004. The new legislation established the Australian Heritage Council, replacing the former Australian Heritage Commission. Two new Federal heritage lists have also been established, the National Heritage List, and the Commonwealth Heritage List. The National Heritage List is a register of places with “outstanding heritage value” to the nation, and can include places outside Australia. Consent by the Commonwealth Minister for the Environment and Heritage is required for works which will have a significant impact on a national heritage place. The Commonwealth Heritage List is a list of heritage places managed or owned by the Federal Government. The Register of the National Estate is retained as an advisory list.

The site is not listed on the Commonwealth Heritage Register.

### **9.5.2 State Government Level**

#### **NSW Heritage Act 1977 (Amended)**

In NSW, the legal protection for items of state heritage significance is afforded by the *Heritage Act, 1977*. Those items of state significance are listed on the State Heritage Register and their inclusion on the register identifies them as possessing values that are important to the NSW community.

The subject site is listed on the State Heritage Register (SHR No. 01806), therefore the provisions of the NSW *Heritage Act* apply.

Owners of items on the State Heritage Register are required to maintain the item in accordance with Section 118 of the Heritage Act as set out in the Heritage Regulations 2012, sections 9-15 to ensure that heritage significance is maintained through the achievement of minimum standards related to:

- Weatherproofing
- Fire Protection
- Security; and
- Essential Maintenance

Where these standards are not met and the heritage significance of the item is in jeopardy, the Heritage Council has the power to order repairs after consultation with the owner. If negotiation with the owner failed, the Heritage Council can arrange for the works to be carried out and charge the expenses to the owner (See Appendix N).

Pursuant to section 57 (1) of the Heritage Act, 1977 a Section 60 application will be required for (any major works proposed for State Heritage Register items for assessment and approval by the Heritage Council to ensure that the heritage significance of the item is not adversely affected.

In order to facilitate and speed up the process, works that are minor in nature and will have minimal impact on the heritage significance of the place can be granted exemptions for certain activities which would otherwise require the Heritage Council's approval under the NSW Heritage Act.

There are two types of exemptions which can apply to a heritage item listed on the State Heritage Register pursuant of section 57 (2) of the Heritage Act:

- Standard Exemptions for all items on the State Heritage Register. Typical activities that are exempted include building maintenance, minor repairs, alterations to certain interiors or areas and change of use.
- Site Specific Exemptions for a particular heritage item can be approved by the Minister on the recommendation of the Heritage Council.

#### **State Heritage Register Requirements**

The NSW State Heritage Register (SHR) is established under Section 22 of the Heritage Act, and pursuant to Section 57(1) of the Act, the approval of the Heritage Council of NSW is



required for any proposed development within the site, including subdivision, works to the grounds or structures or disturbance of archaeological 'relics'.

The Shepherds Hill Defence Group Military Installations is listed on the State Heritage Register and is required to be maintained in accordance with Section 118 of the Heritage Act as set out in the Heritage Regulations 2012, sections 9-15. The Minimum Standards of Maintenance and Repair require weatherproofing; fire protection; security; and essential maintenance and repair. If a property falls short of statutory minimum maintenance standards as specified by the Heritage Act, the provisions of the Act can be enforced to ensure that such works are carried out.

The Heritage Act Minimum Maintenance Standards can be accessed at:

[www.environment.nsw.gov.au/Heritage/](http://www.environment.nsw.gov.au/Heritage/).

### **Heritage Act Approvals and consent processes**

Statutory development approval is required in order to undertake most forms of work on the Shepherds Hill Defence Group Military Installations. In some circumstances, basic maintenance, repairs and minor alterations may be subject to exemption from approval, however, these must be formally confirmed with both Newcastle City Council (Council) and the Heritage Council of NSW in writing, prior to any work proceeding.

It is recommended that the Council, as the owner, work with an experienced heritage professional to identify and document their requirements for change and development, and confirm that proposed works align with the heritage significance and policy parameters of the endorsed Conservation Management Plan (CMP) for the specific property as well as the applicable Local Environment Plan (LEP) and Development Control Plan (DCP). The objective of working with a heritage professional from the start of the project is to avoid any adverse impacts, and thereby reduce delays, minimise conditions attached to approvals or refusal of the development application (DA).

A heritage architect, for example, will be able to assist in appropriate design solutions for new facilities and also in identifying and selecting appropriate tradespeople to work on the site.

### **Types of Applications for development approval**

Newcastle City Council and the Heritage Council of NSW are the primary consent authorities respectively under the Environmental Planning and Assessment Act, 1979, and the Heritage Act, 1977.

Because the Shepherds Hill Defence Group Military Installations is a state-listed heritage item, applications for approval to undertake works can be made in one of two ways: as an Integrated Development Application (IDA), combining the Heritage Council of NSW and Council DA processes, or separately by submitting a Section 60 application to the Heritage Council of NSW first, followed by a DA to the Council.

Early consultation with the relevant divisions of the two consent authorities prior to submitting a formal application for approval to undertake development works is recommended in order to identify all pertinent issues. To avoid delays, it is important to ensure that when submitted, the IDA, DA, Section 60 application and the accompanying Heritage Impact Statement (HIS) comprehensively address the scope of work for which approval is sought, thereby giving the application the best chance of prompt assessment.

### **The Integrated Development Application (IDA)**

In the IDA process, both Newcastle City Council and the Heritage Council of NSW simultaneously consider and determine the application, which is publicly advertised. This application mode is particularly encouraged to facilitate efficient processing of applications between heritage officers from both agencies and to save time.

The IDA is lodged with council, which then refers the application to the Heritage Council of NSW. The council must advertise the application for public comment for 30 days. Copies of

submissions made in response to the advertisement are sent to the Heritage Council of NSW within 21 days after it receives:

1. The last of the submissions made during the relevant submission period, or
2. Advice from the consent authority that no submissions were made, to issue General Terms of Approval/ or General terms of Refusals.

An IDA must be determined within 60 days of its lodgement. While the Heritage Council of NSW must approve a heritage IDA for it to succeed (usually with general terms of approval attached), Newcastle City Council is the final authority. The DA consent issued by the Newcastle City Council must be consistent with the Heritage Council of NSW's general terms of approval (GTA). An IDA that has been approved by the Heritage Council of NSW can still be rejected by the Newcastle City Council for non-heritage reasons.

Following completion of the IDA process, a Section 60 application is submitted to the Heritage Council of NSW. This application must take account of the Heritage Council of NSW's general terms of approval for the IDA application and any conditions imposed by Newcastle City Council.

For a full explanation of the IDA process, refer to The Approvals Process, issued by the Heritage Council of NSW, which can be found at:

<http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/heritagecouncil/hcapprovals.pdf>

### **The separate Section 60 Application and DA process**

A separate application to the Heritage Council of NSW, under Section 60 of the Heritage Act, followed by a DA (Please refer to

<http://www.environment.nsw.gov.au/Heritage/development/section60.htm>).

If approval to undertake works is granted by the Heritage Council of NSW, any general terms of approval that the Heritage Council requires must be included as part of the council's development consent conditions.

Once a Section 60 approval is received from the Heritage Council of NSW, a DA approval is required.

Any application for approval to undertake works needs to be accompanied by the endorsed CMP and a Heritage Impact Statement (HIS) which is generally prepared by a heritage professional. The HIS examines the proposed works and identifies any impacts on the assessed significance of the place and includes any measures to mitigate impacts (The Heritage Council of NSW guidelines on Statements of Heritage Impact can be downloaded from:

[www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf](http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf)

Whether the preferred application route of an IDA is used, or the separate Section 60 application and LEP DA process is followed, the Heritage Council of NSW will refer to the Statement of Significance and the policies of the endorsed CMP for the item in determining applications made under Section 62 (c1) of the Heritage Act, and council will use the endorsed CMP when assessing DAs made under the Newcastle LEP. When such applications are advertised, public comments are also carefully considered along with the endorsed CMP. As with all DAs, talking through proposals with neighbours can be a useful preliminary step.

The HIS that accompanies the application will assess in detail how the proposal affects the heritage significance of the property, what alternatives were considered to avoid any adverse impacts, and may recommend mitigating actions to reduce material affects. The HIS should follow the standards for such reports issued by the Heritage Council of NSW. It is recommended that the HIS be prepared by a Heritage Professional. Refer to:

<http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf>.

### **Exemptions: Heritage Act**

The Heritage Council of NSW also provides some exemptions to the standard consent process for basic maintenance, repairs and some minor alterations if they will have minimal impact on the heritage significance of the item. To eliminate doubt, the Heritage Council of NSW needs to be notified in writing of proposed works using the Exemption Notification form (Request for confirmation that heritage works do not require development consent—Section 57 (2) of the Heritage Act).

All works, including urgent conservation work; need to be confirmed in writing as acceptable by the Heritage Council or its delegate prior to commencement.

Standard exemptions for state listed heritage items have specific notes and definitions to guide their implementation. Any works done using the standard exemptions must be carried out in accordance with relevant guidelines issued by the Heritage Branch including The Maintenance of Heritage Assets: A Practical Guide, 1998; Movable Heritage Principles, 2000; and The Heritage Council Policy on Managing Change to Heritage Items, 2005. Please refer to:

<http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/standardexemptions.pdf>.

There is also potential for site-specific exemptions to be made for a particular heritage item by the Minister for Environment and Heritage on the recommendation of the Heritage Council of NSW. Site specific exemptions are often identified in a CMP.

If it is unclear whether proposed development satisfies the requirements of these exemptions; an application will be required under Section 60 of the Heritage Act.

Pre-application advice from Heritage Division staff is recommended before submitting such an application. Applicants need to complete and return the Exemption Notification form under section 57 (2) of the Heritage Act and receive confirmation that heritage works do not require development consent, prior to commencing any works, including urgent conservation works. There is no fee for this request.

The form can be downloaded at:

<http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/formexemptionnotifications57.pdf>.

### Historical Archaeology

The NSW *Heritage Act 1977* (the Act) regulates the development impacts on the heritage assets of New South Wales. The Act defines a heritage item as 'a place, building, work, relic, moveable object or precinct'. These are further defined as follows:

- *'building'* includes a part of a building, a structure or a part of a structure
- *'moveable object'* means a moveable object that is not a relic
- *'place'* means an area of land, with or without improvements
- *'precinct'* means an area, a part of an area, or any other part of the State
- *'relic'* means any deposit, object or material evidence:
  - a) *which relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement; and*
  - b) *which is 50 years or more old.*

Archaeological features and deposits are afforded statutory protection by the 'relics' provisions of the Act (as amended in 1999). Section 139(1) of the Act states the following:

*'A person must not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an Excavation Permit.'*



An Excavation Permit, however, is only required where one of the following exceptions, as outlined in Section 139(4) of the Act, does not apply:

- c) where an archaeological assessment has been prepared in accordance with Guidelines published by the Heritage Council of NSW which indicates that any relics in the land are unlikely to have State or local heritage significance; or*
- d) where the excavation or disturbance of land will have a minor impact on archaeological relics; or*
- e) where the excavation or disturbance of land involves only the removal of unstratified fill which has been deposited on the land.*

In the event that relics are discovered during excavation, the developer must immediately notify the Heritage Council of the discovery in accordance with Section 146 of the Act. This applies, regardless of whether a permit or exception approval has been granted for the development. In this situation the individual who has made the discovery must, in accordance with Section 146 of the Act:

- f) within a reasonable time after he or she first becomes aware or believes that he or she has discovered or located that relic, notify the Heritage Council of the location of the relic, unless he or she believes on reasonable grounds that the Heritage Council is aware of the location of the relic; and*
- g) within the period required by the Heritage Council, furnish the Heritage Council with such information concerning the relic as the Heritage Council may reasonably require.*

## National Parks and Wildlife Act 1974

Legislative management and protection of Aboriginal objects and places comes under the NSW National Parks and Wildlife Act, 1974 and it is an offence under that Act to disturb or otherwise alter Aboriginal objects without the express permission of the Director General of the NSW National Parks and Wildlife Service.

The protection provided to Aboriginal objects and places applies irrespective of the level of their significance or issues of land tenure. Any future development of the Shepherds Hill Defence Group Military Installations should be undertaken with due regard. Contractor and subcontractor contracts should also specify obligations which need to be met relating to the National Parks and Wildlife Service.

The National Parks and Wildlife (NPWS) Act, 1974 provides statutory protection for all Aboriginal 'objects' (consisting of any material evidence of the Indigenous occupation of New South Wales) under Section 90 and for 'Aboriginal places' (areas of cultural significance to the Aboriginal community) under Section 84. Aboriginal objects and places are afforded automatic statutory protection in New South Wales whereby it is an offence (without the Minister's consent) to:

*Damage, deface or destroy Aboriginal sites without the prior consent of the Director-General of the National Parks and Wildlife Service (now the Department of Environment and Conservation).*

The Act defines an Aboriginal object as:

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

The protection provided to Aboriginal objects and places applies irrespective of the level of their significance or issues of land tenure. Any future development on this site should be undertaken with due regard.

The subject site is not identified as a site or place of Aboriginal significance. A search on the Aboriginal Heritage Information Management System (AHIMS) did not return any known Aboriginal site or place on the allotment of the site. However, it should be noted that there are five aboriginal places of significance identified within a 1km radius of the subject site.

An Aboriginal Due Diligence Assessment was undertaken by CPH in September 2017 and is included in full in Appendix F. In summary, the report concluded the following:

*The Aboriginal Due Diligence assessment has found that:*

- *The subject site contains landscape features which might indicate the presence of Aboriginal objects;*
- *Historical evidence indicates that the Shepherds Hill landscape was used as a recreational reserve from the time of initial European settlement until 1890 when construction of the defence structures began (followed by a second phase of construction in 1942). This indicates that, whereas the site itself has been subject to fairly intensive use and development since 1890, the landscape immediately surrounding it may potentially have been left relatively intact, as it would have provided vegetative cover;*
- *Historical evidence indicates that the landscape setting of the subject site presents a likely location for Aboriginal food processing and procurement activities;*
- *Historical evidence makes reference to a stone artefact site at Shepherd's Hill.*
- *A search of AHIMS has indicated that no recorded Aboriginal sites are located within a 200 metre buffer of the subject site. Their substantial distance suggests that they would not be directly impacted by any archaeological investigations at the subject site; and*
- *the subject site is unlikely to contain Aboriginal objects, due to almost 130 years of human disturbance. The area immediately surrounding the site, however, is assessed as being less disturbed and, therefore, has greater potential for the presence of Aboriginal objects.*

*Any future archaeological investigations at the subject site, particularly those involving ground disturbance, would need to first consider the above points. As historical records refer to the presence of a stone artefact site at Shepherd's Hill, it is recommended that, at a minimum, surface survey be undertaken prior to any works. Additionally, it is recommended that test pits be opened at relevant topographical locations across the site, so as to assess whether further excavation might constitute 'harm' to Aboriginal objects. Guidelines for undertaking test excavations without an AHIP are outlined in the National Parks and Wildlife Act 1974.*

*If Aboriginal objects are likely to be harmed by the proposed activity, it is recommended that an Aboriginal Heritage Impact Permit (AHIP), as defined in section 90A of the National Parks and Wildlife Act 1974, be obtained. This process involves the following steps, as outlined in National Parks and Wildlife Regulation 2009:*

- *preparation of a Cultural Heritage Assessment (CHA) report;*
- *Aboriginal community consultation; and*
- *submission of an AHIP Application Form with supporting documentation.*

### **National Construction Code (incorporating Building Code of Australia)**

The National Construction Code (NCC) incorporates the Building Code of Australia (BCA). It is a national set of building regulations with some state-specific variations, including mandatory performance requirements for fire protection, fire warning, and egress, equality of access and equal provision of facilities.

Compliance with such building regulations should be achieved using the objectives and performance requirements of the regulations, rather than deemed-to-satisfy provisions. The BCA permits alternatives to its deemed-to-satisfy requirements provided that these can be

demonstrated to achieve at least the same level of compliance with its performance requirements. Changes to the Shepherds Hill Defence Group Military Installations to achieve fire safety may be acceptable provided they occur in areas of lower rather than higher significance and all alternatives are conscientiously—and demonstrably—investigated.

### State Environmental Planning Policy (SEPP) Exempt and Complying Development Codes

The SEPP Exempt and Complying Development Codes, whereby some development with minimal impact can be undertaken without consent, DOES NOT apply since the Shepherds Hill Defence Group Military Installations is listed as a heritage item on the State Heritage Register (other than a few minor exceptions where S57 exemptions have already been granted under the NSW Heritage Act to specific properties).

Refer:

[http://www.planning.nsw.gov.au/Portals/0/BuildingInNSW/EC/EC\\_POLICY\\_1\\_1\\_OVERVIEW\\_EXEMPT\\_DEVELOPMENT.pdf](http://www.planning.nsw.gov.au/Portals/0/BuildingInNSW/EC/EC_POLICY_1_1_OVERVIEW_EXEMPT_DEVELOPMENT.pdf)

#### 9.5.3 Local Government Level

The Shepherds Hill Defence Group Military Installations is listed as a heritage item under Schedule 5 Environmental Heritage of the Newcastle LEP 2012 as item no. 64.

Submission of a Development Application to the local government authority for approval to erect, alter or demolish a building or to change the use of the building applies to the subject site. The relevant statutory controls for the Shepherds Hill Defence Group Military Installations are the Newcastle Local Environment Plan (LEP) 2012 and Newcastle Development Control Plan (DCP) 2012.

The site is identified as RE1 Public Recreation under the Newcastle LEP 2012. The land use table details regarding RE1 Public Recreations includes the following:

##### *Zone RE1 Public Recreation*

##### *1. Objectives of zone*

*To enable land to be used for public open space or recreational purposes.*

*To provide a range of recreational settings and activities and compatible land uses.*

*To protect and enhance the natural environment for recreational purposes.*

##### *2. Permitted without consent*

*Environmental facilities; Environmental protection works*

##### *3. Permitted with consent*

*Boat launching ramps; Boat sheds; Camping grounds; Car parks; Caravan parks; Charter and tourism boating facilities; Child care centres; Community facilities; Emergency services facilities; Information and education facilities; Jetties; Kiosks; Marinas; Markets; Moorings; Passenger transport facilities; Recreation areas; Recreation facilities (indoor); Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Respite day care centres; Restaurants or cafes; Roads; Water recreation structures*

##### *4. Prohibited*

*Any development not specified in item 2 or 3*



## **Newcastle Coastal Plan of Management (2015)**

This Plan of Management was adopted by in Council September 2015 and under Section 7.6 refers to possible future uses of the Shepherds Hill Cottage:

- (a) *...community activities, retain and upgrade building for new possible commercial use; investigate option for low key kiosk, café and other use as part of a conservation plan process.*

## **Environmental Planning and Assessment (Amendment) Act 1997**

Submission of a Development Application to the local government for approval to erect, alter or demolish a building or to change the use of the building does apply to the Shepherds Hill Defence Group Military Installations.

### **9.5.4 Non-Statutory Listing**

#### **National Trust of Australia (NSW)**

The National Trust of Australia (NSW) has assembled a Register of heritage items and conservation areas. The National Trust Register is a respected guide to items of cultural significance.

Listing on the Trust's Register does not hold any statutory control but indicates buildings' heritage value for the community.

The readily available National Trust register does not include the Shepherds Hill Defence Group Military Installations.

#### **The Register of the National Estate**

The Register of the National Estate is a list of natural, Indigenous and historic heritage places throughout Australia. This was originally established under the Australian Heritage Commission Act 1975 (repealed). It was closed in 2007 and is maintained on a non-statutory basis as a publicly available archive and educational resource.

The Register of the National Estate (RNE) is now an archive of information about more than 13,000 places throughout Australia.

The Shepherds Hill Defence Group Military Installations is listed on the Register of the National Estate (Place ID. 18950).

#### **AIA Register of Buildings of Significant Architecture**

The NSW Chapter of the Australian Institute of Architects has maintained a register of notable NSW Architecture since October 1949. The list, presented in an abbreviated version of entries held at the Chapter Office on a State Heritage Inventory Database and card index, is available on the AIA website NSW Chapter section.

The subject site is not listed on this register.

## **9.6 Client's Requirements**

The Shepherds Hill Defence Group Military Installations is currently in a state of disrepair as a result of the April 2015 storm, vandalism and general wear and tear that has occurred to the site structures over the years. The state of decline of the structures located on the site has prompted Newcastle City Council to commission the production of this CMP, to guide any future conservation works to the site and to identify the potential for adaptive reusing of the site, to encourage visitor engagement.

As such, the following section considers the conservation requirements and significance of the site and explores adaptive reuse ideas that are considered to potentially be compatible with the site, in regards to heritage.

Note: The following section is a preliminary assessment of the adaptive reuse options for the Shepherds Hill Defence Group Military Installations. Further investigation and consideration is required in order to ascertain the most appropriate future uses for the site.

### 9.6.1 Adaptive reuse and potential future uses

The Shepherds Hill Defence Group Military Installations is considered to have the potential for other uses that could be facilitated through adaptive reuse. An analysis of the site in its present condition has outlined the following options for the adaptive reuse of the entire site generally and each built element separately. It should be noted that the options for the site take into account the presence of Marine Rescue and some ideas enable multiple uses of the sites at one time. For further details, reference should be made to the conservation policies outlined in Section 10.

Structure	Idea	Examples
Entire Site	<b>Wedding Venue</b> - 41 The Terrace is currently used as a wedding venue due to its expansive views of Newcastle and the Tasman Sea. It is proposed that this use is continued with only external access to the built elements on the site provided. Internal access to the cottage and its grounds may be permitted depending on how the cottage is independently adaptively reused.	The following figures illustrate how 41 The Terrace has previously been used as a wedding venue. It should be noted that some of the following photographs have been taken in unsafe locations, predominately on top of the Battery Observation Post, which should be monitored by Council and not encouraged. (Figure 213 and Figure 214)
Entire Site	<b>Film Set</b> - 41 The Terrace is considered of historic and aesthetics significance, which makes it a prime site for use as a set for television, commercial or movie productions. As such, there is an opportunity to offer the site for hire by such organisations for a fee which could go towards the conservation of the structures on the site and general maintenance.	Historic sites are frequently used for television, commercial and movie productions with various examples including the White Bay Power Station (Figure 215) which was used for Baz Luhrmann's Great Gatsby film of 2013 and the Hatfield Aerodrome in Hertfordshire, England, which was used in the Band of Brothers TV series and the movie Saving Private Ryan (Figure 216). In addition, the movie Australia was filmed at Strickland House for all Darwin scenes.
Entire Site	<b>Educational and Entertainment Programs</b> - Consultation should be undertaken with local schools and the Board of Studies to determine the study requirements of students of various ages and the possibility of including the Shepherds Hill Defence Group Military Installations within these studies. Similarly, there are various groups that would be interested in the site including historical societies, special interest groups, amateur historians, local community groups (e.g. Friends of King Edward Park) and gardening groups. Tours and activities onsite that specially cater to these groups could be arranged.  Similarly, any exhibitions or programs occurring in Newcastle that relate to the Shepherds Hill Defence Group Military	The Great Synagogue in Sydney is a historic building that has a museum collection with various items including paper documents, silver, paintings, textiles etc. General tours are held for tourists and school children throughout the week while a number of tours are organised throughout the year to promote the attendance of special interest groups including the Silver Society of NSW, Furniture Society of NSW, Judaic Textiles Group etc. In the past the historic site has also been included in education programs with other Jewish and non-Jewish organisations including Open Sydney, run by Sydney Living Museums. The synagogue has also played host to the Australian Chamber Orchestra who performed traditional Jewish tunes in the Sanctuary on two separate occasions.

Structure	Idea	Examples
	<p>Installations should be identified and the organisation approached.</p> <p>Entertainment events occurring in Newcastle should also be considered along with the potential use of the site as a venue for facilitating forms of entertainment e.g. outdoor cinema screening shows or movies related to the site or Newcastle, music shows etc. Another possibility is the development of a light show or re-enactment in association with Fort Scratchley.</p>	<p>Historic sites are used as a vehicle for light shows around the world, which highlights the architecture of the building or site and provides an interesting contemporary and artistic interpretation. One example includes the "Blood on the Southern Cross" sound and light show, held at the historic Sovereign Hill. The show reflects on the gold mining history of the site. (Figure 217)</p> <p>Another well-known example is Vivid Sydney which involves various historic sites throughout the city (Figure 219). There are also other examples of light installations being employed independently at historic sites including the Colour Tunnel in Birmingham, England (Figure 218) and the Searchlight post at Boora Point in Long Bay (amateur photographers attempt, Figure 219).</p>
Entire Site	<p><b>Commemorative Events</b> - Throughout the year commemorative events regarding the wars are held at various different locations around Australia. The City of Newcastle is frequently involved in such events and yearly schedules should be consulted in order to ascertain the appropriateness of the study area's involvement. There is also the opportunity of creating new commemorative events which involve the Shepherds Hill Defence Group Military Installations (e.g. commemorative event in association with other forts, remembering the attack on Newcastle by Japanese midget submarines on 8 June 1942).</p>	<p>In association with the City of Newcastle's schedule of events for ANZAC Day in 2016, various programs were held throughout the LGA including the firing of the guns and Open Day at Fort Scratchley, held on Monday 25 April. The event included a four-gun Salute to the Fallen by the Mark 7 Guns, conducted at the conclusion of the Dawn Service at approx. 6am (to represent the Navy, Army, Air Force and ANZAC). The event also included access to the Fort Museum.</p>
Entire Site	<p><b>Incorporation into the Bathers Way Walk/ Heritage Interpretation</b> - The redevelopment of the Bathers Way walk is considered a prime opportunity to connect the Shepherds Hill Defence Group Military Installations with various other points of interest in Newcastle. As such, the heritage interpretation created for the site should draw on the plans for the redevelopment of the Bathers Way walk and ensure the site is a point of interest that people will want to take a break to explore. Heritage interpretation is further explored in Section 8.6.2.</p> <p>The development of the Bathers Way walk is considered to have a positive impact on the Shepherds Hill Defence</p>	<p>An example of a walk incorporating heritage interpretation within proximity to Shepherds Hill is the Memorial Walk. Located within proximity to the Strzelecki look out, the walk incorporates various elements within the walk that commemorates the centenary of ANZAC. It also provides a connection to the Bathers Way walk (Figure 220).</p> <p>In the Bathers Way footpath, paver markers could also be used to provide information leading up to the Shepherds Hill site. Such forms of heritage interpretation provide a subtle transference of information while also avoiding distracting from the surrounding streetscape. Maitland City Council is in</p>



Structure	Idea	Examples
	Group Military Installations, providing the opportunity for an increase in visitors to the site. As such, incorporating the site into any potential events associated with the walk should also be considered.	the process of implementing interpretation throughout the city which includes in-ground paver markers (Figure 221).
Entire Site	<p><b>Boot Camp/ Exercise Classes</b> - In association with the heritage interpretation employed on the site and the Bathers Way Walk, the site has the potential to hold exercise classes and boot camps. While the SHR item is considered an historic site, it is also historically connected to the King Edward Park which could be incorporated in these activities.</p> <p>A removable work out station could be created and the equipment stored in the cottage or the Battery Observation Post.</p> <p>This was considered a least preferred option by the community during the preliminary community consultation process.</p>	<p>Many parks and historic sites around the world are used as a vehicle for exercising. The panoramic views of 41 The Terrace and proximity to King Edward Park makes it a prime location for such activities with similar examples including Sydney Park and Centennial Park (Figure 222). While these two parks are on a larger scale, several exercise activities adapted to the sites are held throughout the week. Consideration of the topography of 41 The Terrace, potential hazards and proximity to King Edward Park should be undertaken before high impact exercise classes are organised.</p> <p>Lower impact exercise, such as Yoga and Tai Chi are ideal for the site and could be run so as to coincide with sunrise or sunset (with consideration to the weather).</p>
Cottage	<p><b>Low key café/ kiosk in association with community room/ local artists</b> - Providing facilities that would be of use to visitors, particularly those taking part in the Bathers Way walk, is considered an ideal option for adaptively reusing the cottage. It would not only provide much needed facilities for the site (limited facilities are available along the Bathers Way with 41 The Terrace being located centrally within the walk) but would also allow for visitors to appreciate the cottage in a new way.</p> <p>There is the potential for the cottage to be converted into a café, however, investigation into what works are required to convert the cottage, needs to be undertaken. For example, the existing toilet facilities onsite would most likely not meet the requirements of the café, and as such, a separate toilet development will need to be considered within proximity to the cottage. The provision of such facilities in an ancillary building is considered a positive, particularly if the site becomes a rest stop for people travelling along the Bathers Way walk. The fence surrounding the cottage may need to be</p>	<p>The Gatekeeper's Lodge is located within Victoria Park and is owned by the City of Sydney. The cottage is a late 19th century sandstone building that was recently conserved and developed (in consultation with CPH) into the Gardener's Lodge Café that specialises in bush flavoured food. The café is run by three hospitality teachers, including Aboriginal Elder Aunty Beryl Van-Oploo, and teaches Aboriginal Students Certificate III in Hospitality (Figure 223). The heritage listed Bellevue Cottage (1896) in Glebe was conserved and converted into the Blackwattle Café (Figure 224).</p> <p>An example of a well-designed toilet block is the new timber and concrete toilet blocks located within Centennial Park. Designed by LahzNimmo Architects, the simple and contemporary design employed in the toilets was established in order to incorporate the structures within the landscape setting and existing pathway systems. A similar style could be employed at the Shepherds Hill site on a smaller scale (Figure 223). Similarly, the public toilets at Mrs Macquarie's Chair employ a similar design.</p>

Structure	Idea	Examples
Cottage/ Battery Observation Post	adapted to facilitate any potential external construction works.	
	<p><b>Community Organisation</b> - There is potential for the cottage, once conserved, to be offered for use again by a community organisation. However, considering potential space requirements of some organisations, more than a few rooms of the cottage may be required. As such, this option limits public access to the cottage and is not considered a primary solution.</p> <p>Should the Battery Observation Post (BOP) be deemed safe, the building is considered an ideal location for a community organisation to take up residence. While the BOP is considered of exceptional significance, the BOP has not been used for many years and would benefit from adaptive reuse to prevent its further deterioration. The use of this building by a community organisation would give a new life to the BOP and create a new use for the building which is not too far removed from its original purpose.</p> <p>Further consultation with potential community organisations will need to be undertaken to ascertain their exact requirements should they be housed in the BOP and potential enclosure of part of the BOP window openings may be required to protect the staff and any furnishings/ equipment from the weather. If a limited amount of space is required, the rest of the building could be adaptively reused in another way e.g. as a museum.</p>	<p>There are limited examples of similar fortifications being adapted for use by other organisations, however, it is noted that the Green Hill fortifications were once used as a weather station in 1993 by the Bureau of Meteorology.</p> <p>The Battery Observation Post at Jervis Bay was recently adapted for contemporary observation use.</p>
	<p><b>Accommodation</b> - There is potential to convert the cottage back into an accommodation facility. It could be converted into boutique accommodation that Newcastle City Council hires out periodically. Privacy issues will need to be addressed should this option be considered. This option is considered the least preferred as it does not allow full community access.</p>	<p>While on a larger scale, the accommodation facilities at the Quarantine Station provide a unique and luxurious stay within some of the heritage buildings located on the site (Figure 225). Considering the size of the Shepherds Hill cottage, the accommodation provided onsite would be limited.</p>
Cottage/ Battery Observation Post	<p><b>Museum and Art Space</b> - The cottage and Battery Observation Post could both be adapted for use as either a museum outlining the history of the Shepherds Hill Defence Group Military Installations or an art gallery/ artist in</p>	<p>There are various examples of fortification sites throughout Australia that have been adapted to include a museum. Such examples include the Fort Museum at Fort Scratchley, former underground ammunition store at Green Hill in</p>

Structure	Idea	Examples
	<p>residence space. Both options would encourage more interaction with the two buildings which are currently not accessible to the public.</p> <p>The cottage could also be used to hold art workshops and talks.</p>	<p>Queensland and the Breakwater Battery in Port Kembla, also used as a museum.</p> <p>Examples of artist in residence programs held in historic buildings or on historic sites including the Woollahra Municipal Council Artist in Residence Program held at the EJ Ward Paddington Community Centre and the Incinerator Art Space (heritage listed Walter Burley Griffin building) in Willoughby which serves as both art gallery and artist in residence space. Workshops and classes are held at both facilities along with the Wallarobba Arts Cultural Centre in Hornsby which is another prime example of adapting a former residence into an art space.</p>
Tunnels	<p><b>Selective Guided Tours -</b></p> <p>Due to limited space available within the tunnels, guided tours into the tunnels could be conducted a couple times per year via a selective lottery based system. As such, only a few people would be able to access the tunnels at one time.</p>	<p>Tours of the North Head fortifications, including the tunnels, are conducted every Sunday throughout the year. The tour costs \$7 per adult, \$5 per child/concession and \$20 for a family pass (two adults and up to three concessions). There is a maximum number of participants enforced.</p> <p>Periodically, tours of the St James railway station tunnels are conducted and requires people interested to enter into a lottery. Only 6 tickets were issued following the 2015 lottery.</p> <p>Similarly, Sydney Living Museums conducts tours of the Tank Stream twice a year and admission to the tour is by ballot registration only.</p>

The following figures illustrate the various options for adaptively reusing the Shepherds Hill Defence Group Military Installations and the various individual built elements present:



Figure 213: Examples of weddings conducted at 41 The Terrace with the first occurring on 13 February 2010 and the second being a wedding photoshoot from July 2013. The second image may have been photo shopped, however, any scaling of the structures on the site should be avoided if the site is to continue being used as a wedding venue. (Sources: Newcastle Herald article "Newcastle couple's unforgettable wedding date", 14 February 2010, <http://www.theherald.com.au/story/451908/newcastle-couples-unforgettable-wedding-date/multimedia/> and Curly Tree Photograph,



<http://curlytreephography.com.au/curlyblog/atelier-rose-bridal-couture-dresses-shepherds-hill-newcastle/>

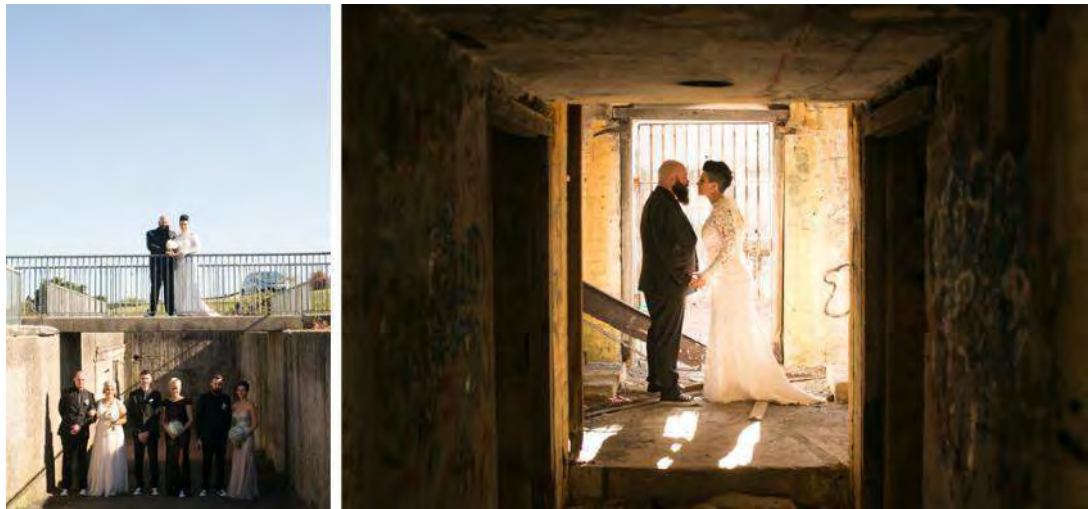


Figure 214: Photographs of a wedding at 41 The Terrace with the wedding party posing on the walkway over the entrance to the tunnels and underneath the walkway as well as within the tunnels. If internal access to the tunnels is deemed safe, use of the tunnels during photography sessions should be allowed provided Council approval is sought. (Source: Something Blue Photograph, <http://www.somethingbluephotography.com.au/newcastle-wedding-photographer-at-shepherds-hill-longworth-house/>)



Figure 215: The White Bay Power Station is a historic site in Sydney that was used as a film set for The Great Gatsby film of 2013. The site was specifically used to create a 1920s set of the slums of New York. (Source: Sydney On Screen Blog, photographs by Luke Brightly, <http://sydneyonscreen.blogspot.com.au/2011/10/trip-to-great-gatsby-set.html>)



Figure 216: Movie stills from Steven Spielberg's 1998 film Saving Private Ryan where the French town of Ramelle was recreated at the Hatfield Aerodrome in Hertfordshire, England. (Sources: The Badger's Eye Blog, <http://www.thebadgerseye.com/2012/02/de-havilland-speilberg-and-short-eared.html>, and Picture Ville Blog, [http://www.pictureville.net/2015\\_09\\_01\\_archive.html](http://www.pictureville.net/2015_09_01_archive.html))



Figure 217: Panoramic photograph of the Blood on the Southern Cross light show at Sovereign Hill. (Source: Vic Deaf website, <http://www.vicdeaf.com.au/news.asp?aid=709&t=sovereign-hill-brings-sound-and-light-show-to-deaf-community>)



Figure 218: The Colour Tunnel in Birmingham is an old abandoned underpass that was given a makeover in 2015 through the installation of various coloured LED lights by artist Bill FltzGibbons. (Source: The Creators Project,



<http://thecreatorsproject.vice.com/blog/disused-underpass-lights-up-into-a-rainbow-walkway-with-thousands-of-leds>)



Figure 219: Photograph of the searchlight at Boora Point, Long Bay as taken and lit by photographer Michael Domaradzki and photograph of the Museum of Contemporary Art in Sydney during the Vivid festival in 2015. (Sources: Panoramio Google Maps, [http://www.panoramio.com/user/6850903?comment\\_page=1&photo\\_page=7&show=all](http://www.panoramio.com/user/6850903?comment_page=1&photo_page=7&show=all) and ABC News, <http://www.abc.net.au/news/2015-05-22/vivid-sydney-city-landmarks-light-up-for-annual-festival/6489782>)



Figure 220: Photograph showing heritage interpretation currently in place along Memorial Walk. The interpretation includes a number of soldier silhouette cut-outs with imprinted text. The walk was established to commemorate the centenary of ANZAC. (Source: In Touch Website)





Figure 221: Example of an in-ground paver with heritage interpretation information sandblasted onto the surface. This is a mock up design for Maitland City Council. (Source: Central Maitland Heritage Interpretation Masterplan, March 2014, Sue Hodges Production, <http://maitlandyoursay.com.au/uncovering-the-stories-of-central-maitland/documents/14746/download>)



Figure 222: Photographs of a boot camp underway at Centennial Park and the Rainbow Run 2015 at Sydney Park with the former brickworks towers visible in the background. (Sources: Healthy Habit Fitness website, <http://www.healthyhabit.com.au/#!/rainbow-run/cps> and Fitta Bodies website, <http://www.centennialparkbootcamp.com.au/>)



Figure 223: Photograph of present City of Sydney Major Clover Moore with Aunty Beryl Van-Oploo seated outside the Gardener's Lodge café and the new toilet facilities at Centennial Park. (Source: Gardener's Lodge Café website, <http://gardenerslodge.com.au/sample-page/> and Centennial Parklands website, <http://blog.centennialparklands.com.au/reflecting-on-your-convenience-global-updated/>)



Figure 224: Images of the Bellevue Cottage in use as the Blackwattle Café (Source: Sydney on Sunday Blog, <https://sydneyonsunday.com/2011/05/26/blackwattle-cafe-rating-18-525/> and Little Eats Blog, <http://littleeats.com.au/sydney/review/blackwattle-cafe/>)



Figure 225: Interior view of an accommodation room at the Q Station Retreat. (Source: National Parks NSW website, <http://www.nationalparks.nsw.gov.au/camping-and-accommodation/accommodation/Quarantine-Station-Q-Station-Retreat>)

### 9.6.2 Interpretation

There is currently some active interpretation regarding the history and heritage of the site in place. This includes a panel with information about the Bathers Way, the Shepherds Hill Defence Group Military Installations and flora and fauna of the coast.

The following images provide an overview of the heritage interpretation currently in place at 41 The Terrace (Figure 226 and Figure 227).





Figure 226: Existing interpretation sign present at 41 The Terrace between the cottage and the gun emplacement built elements. The sign is strategically placed along the pedestrian path that continues east towards the Battery Observation Post.

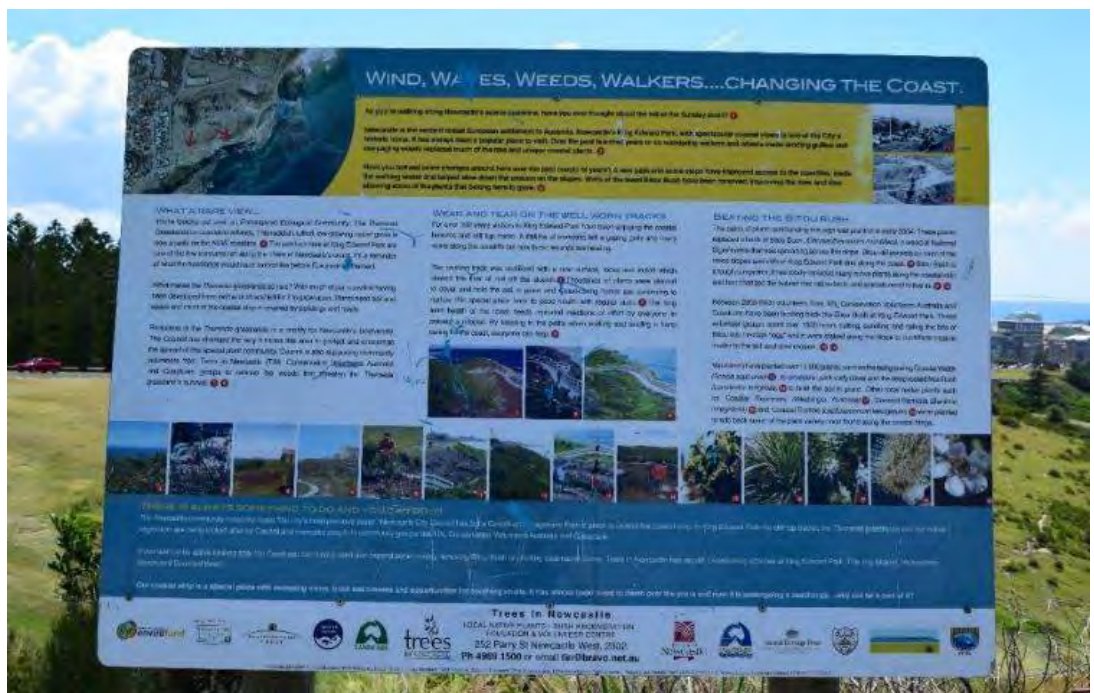


Figure 227: Interpretation sign present towards the northern boundary of the site, overlooking King Edward Park. This sign does not refer to the heritage significance of the site.

There is an opportunity, using the information provided in this Plan and other studies available in the archives, to provide interactive interpretive media, interpretive signs or



displays at key locations throughout the site with the main focus for the interpretive media being the gun emplacement and surrounds, the cottage and the Battery Observation Post.

The selected locations need to be easily accessible, well frequented, and relate visually to components of heritage significance.

The following are suggested themes that could be explored in new interpretation for the site:

- Earlier landforms and occupation;
- Development of the site for Defence purposes (1890s and the gun pit and cottage);
- World War II and the need to defend the coast (Battery Observation Post);
  - Japanese midget submarine attack on Newcastle and the involvement of the SHR item ;
- Significant buildings and grounds features (existing and demolished);
- Shift in technologies used at the site.

Consideration should also be given as to how the site specific heritage interpretation can be incorporated into the heritage interpretation that will be implemented in the Bathers Way walk, which includes the Shepherds Hill Defence Group Military Installations.

Interpretation should include temporary signs updated during the conservation process. Potential delivery mechanisms for interpretive themes / stories should include consideration of downloadable apps for portable electronic devices and use of such mechanisms as QR codes on site.

Interpretation activities should be coordinated by an interpretation policy or plan, which would determine which stories are told where, how the interpretation stations are identified and cross referenced, and the range of most appropriate presentation approaches to use, such as signage, photo-and text display panels externally.

## 9.7 Other Issues

### 9.7.1 Leasing

Prior to the storm of April 2015 which caused major damage to the cottage, the building was leased by Marine Rescue NSW and used as one of their headquarters. Marine Rescue NSW was required to evacuate the premises and temporarily relocate to their Kooragang Island facility. Still present onsite is their radio mask which is still functioning and remotely linked to the Kooragang Island facility.

In accordance with the *State Agency Heritage Guide 2005*, the leasing of a heritage asset to another party should be carefully considered in order to conserve the cultural significance of the heritage item. In accordance with this guide, this CMP forms part of the “appropriate heritage management information” that must be provided to the new managing agency or the lessee.

The cottage has been leased to Marine Rescue NSW (then known as Royal Coastal Patrol) from 2000 and the most recent lease (to Volunteer Marine Rescue NSW) is from 1 August 2009 to 31 July 2019. The lease is for two rooms and a sunroom (Bedroom 2, Laundry and Sunroom) with part of the cottage as common area.

### 9.7.2 Access

The Shepherds Hill Defence Group Military Installations can be approached from various directions including from Cliff Street, The Terrace and King Edward Park. The cottage, gun emplacement and Battery Observation Post are generally not accessible to the public other than externally. Key outstanding accessibility issues that need to be addressed are listed below:

- Disability access to the cottage and other structures (should visitor access be made available);

- Some vehicular access is available; however, the site is predominately accessed on foot;
- The pedestrian access provided is limited and should be improved. In particular, the Bathers Way path should extend through 41 The Terrace with pathways created leading to the above ground DRF station, gun pit and Battery Observation Post.

### 9.7.3 Services

A condition assessment, in relation to mechanical, electrical and hydraulic and fire services, was not carried out for the purpose of this CMP. Services including those such as telecommunications and fire upgrading which change due to technology and legislation will need to avoid impact on original fabric in both external and internal areas of the building.

### 9.7.4 Security

There is limited security present on site with access available to most of the structures. Until completion of conservation works, the cottage has been sectioned off and has strict limitations on access due to the presence of asbestos. In the Browne's Conservation Study, several security issues were raised including the following:

- There is no safety fencing in place along the cliff's edge;
- Ground's surface is uneven with various holes and drops present;
- Access to the Battery Observation Post has not been sufficiently restricted to stop vandalism etc.

Some of these issues have been addressed in part by Newcastle City Council, however, further measures should be taken in order to better secure each built element in order to prevent unauthorised access and vandalism. Furthermore, once conservation works have been completed to the cottage, reassessment of the cottage's security measures should be conducted.

Currently, no access is possible to the Park Battery No.1 Searchlight and bunker, tunnel and engine room. As the engine room is located on private property, passive security is provided by the various occupants of the site. The tunnel and No.1 Searchlight have been secured through the closing of the tunnel following World War II.

### 9.7.5 Archaeology

Details regarding the potential for archaeology of the SHR item has been identified in Section 6.2.1. In summary, there is some potential for archaeology which is limited to the in-ground DRF stations and gun pit. See Appendix G - Archaeological Report, JCIS Consultants. Additional archaeological assessment is required to be undertaken for the balance of the SHR curtilage of the item. Policy 62 in Section 10.7.4 provides a timeframe and guidance in this regard

### 9.7.6 Erosion

As evident during the site inspection and reflected in Browne's earlier report, the location of the Shepherds Hill Defence Group Military Installations on top of a cliff and in proximity to the ocean ensures exposure to salt laden winds. This has evidently impacted on the structures present on the site, particularly the Battery Observation Post which is showing signs of significant wear and tear to the exterior fabric of the building. The absence of any glass or infilling of the window openings to the Battery Observation Post has also exposed the building interiors to the elements.

Similarly, towards the cliff there is a significant amount of erosion of the top soil which has somewhat exposed the foundations of the Battery Observation Post.

### 9.7.7 Other Environmental Threats

Due to the location of the site on the top of a cliff, there are a number of environmental factors that could threaten the site including ocean storms and climate change impacts.

Located close to the cliff edge to take advantage of the opportunities the site offered for surveillance and defence, this also means that the structures are vulnerable to the coastal erosion which is a natural process that has created the cliffs.

The original ecological community of the site has suffered from two centuries of clearing for industry, defence, housing and recreation that has greatly depleted the natural vegetation cover. Bitou bush, an exotic species introduced with the best of intentions to stabilise coastal dunes and cliffs has, like many species introduced to Australia, been too successful, with the result that it has overrun large tracts of coastal New South Wales, out-competing the native species for space and soil nutrients. Other exotic species in the area are invasive and there are scattered self-sown specimens of *Phoenix canariensis* (Canary Island Date Palm) propagated from the mature specimens in the Cottage garden.

### 9.7.8 Visual & Physical Curtilage

The subject site is situated within the Cliff Street and The Terrace streetscape. The existing physical curtilage of the site is defined in the NSW Land Titles as Lot 3116 of Deposited Plan 755247.

The visual curtilage of the subject site is much wider than the physical curtilage due to the strategic positioning of the site including street views both north, south and east with western views as well as distant views possible from the Tasman Sea and Fort Scratchley. The following aerial photograph shows these locations. The existing visual curtilages should be maintained and preserved. These views are established in Section 5.

The physical curtilage of the overall Shepherds Hill Defence Group Military Installations site is defined by its SHR listing curtilage as detailed in the table below and Plan in Figure 228. The statutory curtilage for a heritage item is usually restricted to the lot or lots on which the item is located but the visual curtilage or setting can be much larger and is often critical to conservation of the setting of the item. There are strong visual links between Shepherds Hill, Fort Scratchley and Nobbys that are an important part of their significance for maritime communication and coastal defence.

Lot/Volume Code	Lot/Volume Number	Section Number	Plan/Folio Code	Plan/Folio Number
PART LOT	42		DP	152846
PART LOT	78		DP	154075
PART LOT	0		SP	4203
LOT	3116		DP	755247





State Heritage Register - SHR 01806, Plan 2310  
Shepherds Hill Defence Group Military Installation  
41 The Terrace, Newcastle

Gazettal Date: 02 July 2010

0 40 80 120 160 Metres

Scale: 1:3,000

Datum/Projection: GCS GDA 1994



**Legend**

- SHR Curtilage
- Land Parcels
- Railways
- Roads
- LGAs
- Suburbs

Figure 228: State Heritage Register curtilage map for the Shepherds Hill Defence Group Military Installations. The sites incorporated in the listing are hatched in red. (Source: State Heritage Register form for the Shepherds Hill Defence Group Military Installations, accessed 11 September 2017 via <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5061075>)

### 9.7.9 SHR Listing Information

In light of the findings of this CMP, it is recommended that the listing for the Shepherds Hill Defence Group Military Installations be updated. The listing can be amended via a SHR nomination form. Suggested corrections to the SHR listing include the following:

- In 'Boundary' an adjustment from five elements to three elements, these should include:
  - 41 The Terrace - retain boundary description;
  - Park Battery, No.1 Searchlight and bunker, tunnel and engine room - These three components are to be linked as one element. Retain the boundary descriptions; add to the end of the Searchlight Bunker boundary outline '(located on the cliff-face)';
  - Park Battery, No.1 Gun and bunker, add to the end of the boundary outline '(located north of Strzelecki Lookout).'
- In description, an adjustment of the elements should include:
  - 41 The Terrace, listing its components as: a cottage, remains of a disappearing 8-inch gun, and an observation post complex;
  - Park Battery, No.1 Searchlight and bunker, tunnel and engine room - these are to be linked as components of one element. Retain the boundary descriptions, add to the end of the description 'located on the cliff-face';
  - Park Battery, No.1 gun and bunker, add to the end of the description that it is located north of Strzelecki Lookout on upper cliff slopes;
  - Note: the cottage and Battery Observation Post are not located on a cliff, rather they are located on the top of a hill adjacent to cliffs;
  - Note, in reference to the No.2 searchlight (in King Edward Park) which is not part of the SHR listing should be removed.

## 9.8 Other Stakeholders - Community Expectations

Consultation was undertaken by CPH with the Marine Rescue's representatives on 19 May 2016 to ascertain their requirements for the site should they return to the cottage.

A Community Consultation briefing was conducted by Council on 28 July 2016 with Kerime Danis from CPH in attendance. The aim of this consultation, which was undertaken prior to the CMP being released for public exhibition, was to garner the preliminary response from the wider community regarding their thoughts on the CMP and what they would like to see happen with the site. The results of this meeting are as follows (note: comments received via the Council Facebook page have also been reviewed):

- In general, the community would expect ongoing conservation and maintenance of the site to protect its identified heritage significance;
- Any potential adaptive reuse of the Battery Observation Post for community purposes would need to consider the requirements of the community organisation in terms of access and amenities;
- Should any future weddings be held at the 41 The Terrace, the ceremony only should be permitted and not the reception;
- Having a community organisation present onsite would provide additional surveillance;
- Café/ art gallery considered a good adaptive reuse option for the cottage;

- Boot camp and exercise classes were not considered a good adaptive reuse option for the site due to the site's proximity to King Edward Park, and early morning noise for residents;
- Any use of the SHR item by film companies should ensure access to King Edward Park is retained;
- The provision of additional signage to the Bathers Way was identified as something the local community would like to see happen on the site;
- There are general concerns raised by residents and local community members regarding the potential for noise and traffic should the site be adaptively reused;
- Some community members were also supportive of Marine Rescue's return to the site.

A second Community Consultation drop in session was held by Council on 17 October 2016 and was attended by Brittany Freeland and Ana Silkatcheva of CPH. The purpose of this second session was to provide a casual environment for the community to pop in and discuss any questions or issues they may have regarding the CMP and the potential for adaptively reusing the site. The session was attended by members of Friends of King Edward Park and the Marine Rescue NSW Newcastle Unit Treasurer, Graham Silcock.

## 9.9 Further Research

Due to costs, the scope of works identified in the original tender documentation for the CMP were reduced by Newcastle City Council which resulted in the elimination of additional historic research. As such, the history detailed in this report predominately relies on information readily available in reports previously conducted on the site. The site's historical development and the fabric of the Shepherds Hill Defence Group Military Installations is well researched and studied, however, there are few areas of interest remaining. These include:

- Further investigation into other structures that once occupied the site and were associated with the defence activities that occurred onsite;
- The studies conducted to date do not identify any activities occurring on the site during World War I. Further investigation should be undertaken to determine whether this is the case;
- The scope of works outlined in this report involved focusing on the Shepherds Hill site only. There are several other sites that relate to Shepherds Hill and their history should be investigated. Some examples include:
  - The Park Battery, no.1 gun and bunker and associated tunnels;
  - The Park Battery Observation Post;
  - Number 1 and 2 Coast Artillery Search Light (CASL) emplacements;
  - Various machine gun posts;
  - Communication cables;
  - Fire Commanders Station below the Obelisk;
  - Cliff Street and its houses;
  - The 6-inch gun that was installed in the Southern Park Battery emplacement.
- A search for land titles should be undertaken of the houses within The Terrace and Cliff Street which may provide some information about their association with the Shepherds Hill Defence Group Military Installations and the Strzelecki tunnels;
- The National Archives of Australia (NAA) holds various documents relating to the Shepherds Hill Defence Group Military Installations. A list of these documents is included in Appendix J - National Archives of Australia list of Shepherds Hill related documents;



- Oral histories and consultation with local historians and historic societies should be undertaken, including consultation with past occupants may have further insight into the history of the site;
- Limited information is known about the above ground DRF station. Further research should be undertaken.
- A comprehensive historical research and history study of the site should be undertaken by a qualified historian;
- Further research is required to discover what was originally grown in the cottage's garden.

The following website should also be explored for potential future research: <https://www.records.nsw.gov.au/archives/collections-and-research/guides-and-indexes/coastal-forifications-guide>

## 10. Conservation Policies

### 10.1 Introduction

Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records that are important as tangible expressions of Australian identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about who we are and the past that has formed us and the Australian landscape. They are irreplaceable and precious.

The following chapter presents a series of general conservation policies aimed to guide protection and development of the Shepherds Hill Defence Group Military Installations and ensuring the long-term conservation of the item's heritage significance. They also give consideration to their curtilage and views and vistas towards the heritage item from The Terrace.

These policies should be addressed when preparing future plans, making changes or altering the use of the subject building and their immediate surrounds. The section has been divided into general policies for heritage management of the property and building specific policies for an easier comprehension and adoption.

All policies are numbered sequentially and include procedural matters, significance fabric management and appropriate recommendations. Some policies have been taken from the earlier Conservation Study.

### 10.2 Definitions

The Burra Charter identifies and defines a number of terms and concepts crucial to the development of policies for the conservation of a place. The following are some of the important terms used in the following conservation policy section.

Cultural Significance	Aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects.
Fabric	All the physical material of the place including elements, fixtures, contents, and objects.
Conservation	All process of looking after a place so as it retains its cultural significance.
Maintenance	The continuous protective care of a place and its setting. Maintenance is to be distinguished from repair which involves restoration or reconstruction.

Preservation	Maintaining a place in its existing state and retarding deterioration.
Restoration	Returning a place to a known earlier state by removing accretions or by reassembling existing elements without the introduction of new material.
Reconstruction	Returning a place to a known earlier state and is distinguished from restoration by the introduction of new material.
Adaption	Changing a place to suit the existing use or a proposed use.
Interpretation	All the ways of presenting the cultural significance of a place.

### 10.3 Significant Fabric

In the Assessment of Significance, the building and its elements were graded according to their relative significance. The following fabric rankings and definitions have been adopted for this Plan:

Fabric Ranking	Management and Actions
Exceptional	Preserve, restore, maintain all items and record relevant processes, subject to physical constraints, the approach principles to level of intervention provided in Section 10.4– Site Specific Policies, and detailed specific conservation policies below. If adaptation is necessary for the continued use of the place, minimise intervention, removal or obscuring of significance. All intervention should be reversible and archivally recorded.
High	Preserve, restore, maintain all items and record relevant processes, subject to physical constraints and detailed specific conservation policies below. Opportunity for adaptive reuse to preserve the ongoing viability of the place provided that any significance is retained or revealed. All intervention should be archivally recorded.
Moderate	Elements that should be conserved, subject to physical constraints, and where safety and structural requirements and resources permit retention. There is opportunity for adaptive reuse or partial removal to preserve ongoing viability of the place, particularly if it reveals significance of a higher level. All intervention should be archivally recorded.
Little	Retain, recycle, add compatible new elements and/or remove as necessary for adaptive reuse, ongoing viability or in order to reveal significance of a higher level.
Intrusive	Remove or modify, in long term to reduce adverse impact.

While each of the above represents a level of significance, when referring throughout this document to “significant fabric”, it is implied that reference is being made to fabric of Exceptional, High and Moderate significance.

It should also be noted that the above definitions also act as general conservation policies for appropriate treatment of different significance levels of fabric/elements; where fabric has been graded, the grading carries with it a general guideline as to how it is to be conserved, adapted, or removed.

### 10.4 General Policies

#### 10.4.1 Principal Conservation Policy

- Policy 1 Future conservation, adaptive reuse works and development are to be undertaken in accordance with *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*, 2013.

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|----------|---|
| Policy 2 | This Conservation Management Plan is to be endorsed as the main guide to future planning, management and work on the site. This Conservation Management Plan is to be submitted to the NSW Heritage Council for endorsement and to be reviewed at least every ten years or in the event of substantial changes to the site or whenever new information comes to light such as to warrant an update of the document. |
| Policy 3 | The Statement of Significance and Schedule of Significant Elements (Section 8), should be adopted as a basis for future decision making, planning and work on the site.   |
| Policy 4 | It is to be standard practice for all works to be carried out to the site in accordance with this CMP policies and recommendations.   |
| Policy 5 | This document must be made publicly available to the wider public. Copies should be provided to the State Library of NSW, the Heritage Division of the Department of Premier and Cabinet (digital only), and Newcastle City Council Library.  |
| Policy 6 | Voluntary self-reporting of any potential breach of the <i>NSW Heritage Act, 1977</i> is required.  |

#### 10.4.2 Conservation Process

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|-----------|--|
| Policy 8  | All future actions or works including reconstruction, restoration, preservation, maintenance, repair, new works and uses should be guided by the principles of the Burra Charter and employ the recommended processes of investigation, assessment and management.   |
| Policy 9  | The definitions of significant fabric in Section 8 and the fabric ranking tables in Section 8.6 also act as general policies guiding the treatment of fabric. Fabric grading should guide the conservation of significant elements and fabric of the place while the ranking of a specific element of fabric carries with it a general policy for its treatment.   |
| Policy 10 | Appropriate conservation processes for individual elements of the site including spaces, fabric, finishes and fittings should be determined having regard to their relative significance. Unless prevented by essential structural safety and conservation considerations due to the condition of the fabric, individual elements must be managed according to the table contained in Section 8.6.2.   |
| Policy 11 | <p>All surviving original building fabric and other fabric identified as being of Exceptional and High significance in Section 8 must be conserved and interpreted as part of the future use and development of the site. Preservation of the layers of occupation should also be incorporated (retention of fabric or reinstatement where possible) in accordance with significance grading. This is reflected in the following conditions detailed in the covenant on the site:</p> <ol style="list-style-type: none"> <li>1. <i>The Transferee shall not demolish, damage, alter or change the essential historic character of the said land and the improvements thereon or permit same and shall maintain the land and the improvements thereon in good order and condition having regard to their essential historic character;</i></li> <li>2. <i>The Transferee shall not use or permit to be used the land and any improvements thereon for any purposes other than as an historical and recreational site provided however that the cottage on the said land (being the cottage known as "45 The Terrace, Shepherds Hill"), may be occupied as a home for an artist-in-residence or for</i></li> </ol> |



*any similar purposes not inconsistent with the said historical character;*

*3. The Transferee shall not permit any new buildings or structures to be erected on the said land which adversely affects the historic character of the cottage, battery or King Edward Park; and*

*4. These covenants shall run with the land.*

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|-----------|---|
| Policy 12 | Ensure continued maintenance of the buildings' fabric, services and systems to prevent or minimise deterioration of fabric.   |
| Policy 13 | Where significant fabric has sustained damage or has deteriorated (e.g. timber structural elements and cladding, window frames, brickwork, memorials etc.), conservation works should be undertaken by an appropriately qualified professional to repair that damage. Any future restoration works should be undertaken by a suitably qualified specialist tradesperson with relevant experience and skills.  |
| Policy 14 | Relevant and experienced professional conservation advice should be provided for all conservation and repair work proposals and programs related to the subject site under a Schedule of Conservation Works. Any further repair, reinstatement and restoration of significant elements should be undertaken under the supervision of a suitably qualified conservation architect and should be based on the existing available evidence matching the materials and detailing of the original. |
| Policy 15 | Proposals involving physical intervention on the building fabric graded of Exceptional, High and Moderate significance should be accompanied by a Heritage Impact Statement (HIS) that assesses the likely impacts of the proposed works in regards to Conservation Policies of this CMP and relevant statutory controls.   |
| Policy 16 | Further historical research and comprehensive history study of the site should be carried out by a qualified historian as part of continued efforts to learn as much as possible about the previous structures, original appearance and finishes of various parts of the site. The findings of such research may possibly inform future conservation works of the Shepherds Hill Defence Group Military Installations.  |
| Policy 17 | Where significant fabric has been removed (e.g. chimney stacks etc), reconstruction and conservation works are to be undertaken by an appropriately qualified professional to reconstruct the significant elements. These works are to be undertaken by a suitably qualified specialist tradesperson with relevant experience and skills.   |

## 10.5 Site Specific Policies

### 10.5.1 Conservation of Significant Fabric

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| Policy 18 | Properties listed on the State Heritage Register are required to be maintained in accordance with Section 118 of the <i>Heritage Act 1977</i> . The <i>Minimum Standards of Maintenance and Repair</i> require weatherproofing; fire protection; security; and essential maintenance and repair.<br><br><a href="http://www.legislation.nsw.gov.au/#/view/act/1977/136/part6/div5/sec118">http://www.legislation.nsw.gov.au/#/view/act/1977/136/part6/div5/sec118</a> |
| Policy 19 | A regular maintenance program that will guide the future maintenance of the site should be followed, see Appendix C - Long Term Maintenance   |

Plan - Structures and Appendix D - Landscape Maintenance Schedule of this report.

- Policy 20 Elements identified in Section 8 as being of Exceptional and High significance must be conserved. Any future works affecting these components should respect and be visually compatible with their general architectural and aesthetic character.
- Policy 21 Fabric assessed as having Exceptional and High significance must be retained in situ and conserved. Any adaptive reuse necessary to ensure the continued use of the place, or change, removal or obscuring of significant fabric should be minimised and all future changes should be reversible as far as practicable.
- Policy 22 Fabric evaluated as having Moderate significance may be retained or removed, provided that removal does not cause damage to fabric of Exceptional or High significance. The chimney in the Living Room is to be retained in situ.
- Policy 23 Elements that have been identified as being intrusive in Section 8 of this CMP should be removed or modified to reduce the intrusion. Damage to significant adjoining fabric should be avoided.
- Policy 24 Damage to significant fabric should be repaired wherever practicable. Any significant early building fabric that cannot be successfully repaired may be reconstructed or re-interpreted in the design of replacement items. New replacement elements should be based upon the design and configuration of the original element and following the advice of qualified heritage consultants.
- Policy 25 The significant form of the cottage, gun emplacement and surrounds and Battery Observation Post, should be respected and not compromised by future unsympathetic alterations or modifications.
- Methods of external cleaning should be non-abrasive as to prevent harm to the exceptional fabric of the building.
- Policy 26 The approach to the conservation of individual built elements within the subject site should be in accordance with their relative significance and individual ranking, and be one of minimal intervention, with the philosophy of 'do as much as necessary, but as little as possible' being a primary consideration.
- Policy 27 The adaptation and use of spaces must not conflict with or be detrimental to the cultural significance of the structures within the site as well as the site as a whole.
- Policy 28 New work to the site should be readily identifiable as new work but simultaneously sympathetic to the cultural significance of significant fabric and is to be of high quality to complement the level of aesthetic quality of the existing buildings.
- Policy 29 Should new services or alterations to the existing services be required, these services should be installed with as little impact upon significant fabric as possible and all works should be reversible. With any proposed changes to services, existing service lines and spaces should be utilised, and where possible these should occur in areas that have already been altered.
- Policy 30 Any proposals for alterations must take into account the impact on the aspect of the buildings and must not compromise the architectural and aesthetic integrity of significant components.

- Policy 31 Always engage appropriately skilled practitioners to undertake documentation and supervision of works.
- Policy 32 The site's landscape features should be conserved through regular maintenance operations. New landscape works are acceptable provided it is appropriate to the area and does not damage building fabric (e.g. the activity of tree roots, trunks and limbs, the raising of soil levels, and increased moisture and salts due to watering) or significant views.
- Policy 33 New landscape works are to be based on a landscape heritage assessment and recommendations of the site by a landscape heritage specialist. New plantings shall be sympathetic to the nature and maturity of the existing trees and plant material on site, the buildings, use of the buildings and views. Existing plantings and trees should be documented by an appropriately qualified landscape specialist to incorporate their significance and conditions to guide future management. When the opportunity arises early paths and garden layout should be explored and reinstated.
- New landscape works are acceptable provided it is appropriate to the area and does not damage building fabric (eg the activity of tree roots, trunks and limbs, the raising of soil levels, and increased moisture and salts due to watering) or significant views. Removal of trees and work to timber fence of the site require the approval of the NSW Heritage Council and the Newcastle City Council. Note that certain species that may be exempt from approval to remove by the Newcastle City Council will still need approval by way of a S57(2) Exemption Application or a S60 Approval Application under the Heritage Act.
- Landscape work should be preceded by an investigation of the substrate and any small areas of paving surfaces, early footings, drains, cisterns or other water storage features and cesspits identified. Any significant surviving features, including early paving or surfaces, are to be retained and incorporated into the landscaping of the rear and side yards of the Cottage.
- Any landscaping work which disturbs or removes soil and which may result in the disturbance of archaeological resources, such as excavation to lay paving or plant trees, may require approval if the work is not covered under the Heritage Act's Standard Exemption for Excavation. Landscape maintenance is covered by a Standard Exemption.
- Modification of ground levels including raising ground levels and mounding are not to be considered for the site.
- Policy 34 A Schedule of Conservation Works and qualified consultants' advice should guide the proposed conservation works prior to the site redevelopment. The current works are undertaken under the guidance of conservation architect John Carr under a separate schedule of works with input from City Plan Heritage. The Schedule of Conservation Works provided in Appendix B - Schedule of Conservation Works will guide the urgent repairs and making good works in the next 12 months to 5 years, and should be consulted in future conservation works to the built structures of the site.
- Policy 35 The two 1890s chimney stacks, to the eastern and northern facades respectively, are to be reconstructed based on evidence of the original stacks. The existing base of each of these two chimney stacks and their associated fireplaces are to be conserved as exceptionally significant original fabric of the 1890s cottage.
- Policy 36 Conserve the Battery Observation Post building fabric by reducing its rapid deterioration; this includes containing the erosion to the southern side of



the building, addressing flooding problems, corrosion of steel reinforcement and spalling concrete issues. Address these and other actions identified in table 3.2 remedial repair schedule of Structural Report.

Conserve the Park Battery No.1 searchlight bunker, tunnel and engine room and the No.1 Gun bunker by reducing its rapid deterioration. This includes addressing water issues.

- Policy 37 Elements identified in the Structural Report as being in a critical state or severe condition on Level 3 and 4 of the Battery Observation Post (p.6-7 of Structural Report), are to be immediately attended to by Newcastle City Council.

## 10.6 Policies for Future Uses and Development

### 10.6.1 Quality and Integrity of New Work

- Policy 38 The policies set out in this document should be applied irrespective of the use to which the building is put. Before any major works are undertaken, review all available documentary and physical evidence in order to guide effective conservation work. The conditions of the site's covenant are also to be considered:

- 1. The Transferee shall not demolish, damage, alter or change the essential historic character of the said land and the improvements thereon or permit same and shall maintain the land and the improvements thereon in good order and condition having regard to their essential historic character;*
- 2. The Transferee shall not use or permit to be used the land and any improvements thereon for any purposes other than as an historical and recreational site provided however that the cottage on the said land (being the cottage known as "45 The Terrace, Shepherds Hill"), may be occupied as a home for an artist-in-residence or for any similar purposes not inconsistent with the said historical character;*
- 3. The Transferee shall not permit any new buildings or structures to be erected on the said land which adversely affects the historic character of the cottage, battery or King Edward Park; and*
- 4. These covenants shall run with the land.*

- Policy 39 The planning, design and supervision of any changes to the building fabric or any future development associated with the place should be undertaken in conjunction with persons having relevant expertise and experience in building conservation projects and under the supervision of a suitably qualified heritage architect.

- Policy 40 Should the site be used for any of the purposes outlined in Section 9.6.1 or continue to be used as a wedding venue, Newcastle City Council is to monitor the site and ensure no unauthorised accessed is obtained. Any new use or change of use will require approval under the *NSW Heritage Act 1977*.

- Policy 41 The preservation of the built elements present onsite must take precedence over their adaptive reuse which should only be considered if the significance of the built element can be retained and enhanced.

- Policy 42 Potential impacts to the grounds of the site are to be minimised in any new design. Physical characteristics of works to the grounds are to be appropriate to the item's significance.
- Policy 43 Approval under the Heritage Act 1977 is required in order to undertake most forms of works within the SHR curtilage of the place, including landscape works. Anyone undertaking works/ activities/ development is responsible for obtaining the appropriate approvals prior to undertaking any works/ activities/ development. In some circumstances basic maintenance, repairs and minor alterations may be subject to exemption from approval, however, such exemptions must be formally confirmed in writing by both Newcastle City Council and the Heritage Council of NSW prior to the start of any work.

### 10.6.2 Curtilage and Setting

- Policy 44 Significant views identified in Section 3.6 should remain uninterrupted by other developments. Visual connection between the site elements should remain uninterrupted. This is particularly important for the protection of the existing clear view from Fort Scratchley to the SHR site. Council is recommended to provide DCP controls for height restrictions within the visual corridor identified in Figures 82 and 83.
- Policy 45 The visual setting of the site shall be maintained and enhanced. Any works carried out to the grounds must not adversely affect the setting. The spatial relationship of the site shall remain uninterrupted by any other development
- Policy 46 Development of surrounding areas shall give consideration to the significance of the views to and from the formal entrance gates. Any new works shall take into consideration the scale, form, colour, texture and materials of the site and the main buildings.
- Policy 47 The physical curtilage of the overall Shepherds Hill Defence Group Military Installations is defined by its SHR curtilage (see Figure 228 ). Any new works should be designed in a way so it can be reversed if required. It must allow for the preservation and legibility of significant spaces and be readily identifiable as new work.
- Maintain the existing setting of the site as well as its relationship with the surrounding historic context. Maintain the existing views and vistas to and from the site as detailed in Section 3.6.
- It is recommended that the above policies be incorporated into the Newcastle Development Control Plan (DCP) 2012 particularly in relation to the protection of historic view cones.

## 10.7 Management Policies

### 10.7.1 Disability Access

The Commonwealth Disability Discrimination Act (DDA) makes it unlawful to discriminate against people on the grounds of their disability. Section 23 of the Act requires non-discriminatory access to premises which the public or a section of the public is entitled or allowed to use.

The Act does not require equitable access to be provided to single dwellings, although occupants may wish to provide it for their own use. Where the Act does apply, heritage places are not exempt from it, although the Australian Human Rights Commission has advised that

heritage significance may be taken into account when considering whether providing equitable access would result in unjustifiable hardship.

- Policy 48 Changes to facilitate disabled access may be acceptable if they are designed and implemented to effect areas of less significance rather than those of higher significance, and that all the options to create reasonable access have been conscientiously investigated (and this investigation is demonstrated).

#### 10.7.2 General Access, Safety and Security

- Policy 49 Retain existing main access to the site from The Terrace and York Drive.

- Policy 50 Ensure appropriate security for the building is maintained. The introduction of new elements for improved security systems should be as sensitive as possible to the aesthetic qualities of the site, especially within the front facades.

Use of CCTV systems is appropriate provided that the Specifications of a CCTV system (including the type of camera and location) forms part of an overall security design and is not to be left to the supplier. CCTV cameras should be as small as possible in size and installed discreetly.

- Policy 51 Upon weatherproofing and general renovation, the cottage is expected to be suitable for ongoing use as a residence or for office or retail type occupation. The floor framing does not have the capacity to support loads beyond these occupation types.

- Policy 52 After minor structural rectification and make-safe works, the gun emplacement and associated tunnels are likely to be of acceptable condition to allow public access and restricted tours.

- Policy 53 The Battery Observation Post is currently in a poor condition and poses a safety risk. Access to the Battery Observation Post is to be restricted until urgent conservation works are undertaken. In its current state it is not considered suitable for occupation or public access.

- Policy 54 The safety rails currently in place around the gun pit, in ground DRF station and around the openings above the entrance to the tunnel are considered appropriate and minimally impact on the visual appearance of the site. These rails are to be retained. If replacement is required in the future due to condition of BCA requirements, consultation with a heritage consultant is required.

- Policy 55 Consultation with the owners of 65 Nesca Parade is to be undertaken to gain access to the Searchlight Engine Room, tunnel and No.1 Searchlight, in association with updates undertaken to the CMP. Information gathered from this site inspection is to be included in an updated revision of this CMP. Following the review, a copy of this CMP is to be provided to the owner of 65 Nesca Parade.

- Policy 56 While significant views can be gained from the roof of the Park Battery, no.1 gun and bunker, it is considered a safety hazard. Non-invasive safety railings are to be installed, in consultation with a heritage specialist, to either prevent unauthorised access or provide safer access.

- Policy 57 Adaption of the interior of the Park Battery, no.1 gun and bunker can be undertaken to improve its current use as a lookout point.



Appropriate security fencing is to be erected around the structure, in consultation with a heritage specialist.

### 10.7.3 Archival recording

- Policy 58 An Archival Recording should be prepared for any change to fabric graded as of Exceptional and High significance. Copies of this documentation should be provided to the Newcastle Library and the Heritage Division (in digital form only). Recordings before and during major works should be conducted in accordance with the guidelines of the Heritage Office publication (2001, revised 2004, 2006) Photographic Recording of Heritage Items Using Film and Digital Capture. The recording of change to fabric of Moderate significance, or minor change, should not be excessively detailed, but should be consistent with the significance of the adjoining fabric likely to be affected, and the nature of the changes.
- Policy 59 Should any significant element be removed in the future, they shall be labelled, documented and safely stored against possible future reinstatement and the heritage architect involved in future conservation or development works will be made aware of this reinstatement option. Where possible, any removed element should be stored on site to prevent its complete loss.

### 10.7.4 Archaeology

- Policy 60 Those relics identified as being of medium-high historical archaeological significance (Figure 171) and/or research potential (Figure 170) must be preserved and maintained in situ. Any future works within the curtilage of the subject site would first require the preparation of a management plan which would outline mitigation measures to minimise impacts (see Section 6).
- Policy 61 An archaeological assessment by a suitably qualified historical archaeologist, experienced in working on State significant sites, must be carried out as part of the assessment process prior to approval of any works that may disturb historical archaeological relics.
- Policy 62 Further archaeological investigation should be undertaken into those areas identified as being of medium-high historical archaeological potential in the JCIS report (Figure 170).
- Additional archaeological assessment should also be undertaken for the balance of the SHR curtilage that is not covered in the JCIS report within 12 month of the endorsement of this CMP or prior to any works undertaken whichever occurs first. Findings of this additional archaeological assessment should be endorsed by the Heritage Council of NSW and be appended to the endorsed CMP. General archaeology policies contained in this section apply to the whole curtilage of the SHR item.
- Policy 63 Any future works which would impact on Aboriginal objects or Places (see Appendix F) will require that an AHIP be prepared by a qualified archaeologist and lodged with OEH.
- Policy 64 Should any Aboriginal objects be encountered during works associated with the site, works must cease in the vicinity and the find should not be moved until assessed by a qualified archaeologist. As per the Aboriginal cultural heritage consultation requirements for

proponents 2010 (DECCW 2010), proponent must inform all relevant groups about the management of Aboriginal cultural heritage sites within the study area throughout the life of the project.

Policy 65 Any future interpretation strategy prepared for the subject site should reflect its rich Indigenous and non-Indigenous archaeological heritage.

Policy 66 An agreement should be reached with a local university or cultural institution that, in the event that moveable archaeological relics are exposed within the curtilage of the subject site, these are appropriately stored and conserved.

#### 10.7.5 Maintenance and Repair

Policy 67 Undertake regular inspections, monitoring and maintenance works in accordance with the schedule of ongoing maintenance works provided in Appendix C and D.

Policy 68 Where significant fabric is damaged, the repair of the original element should be done in preference to its replacement with the new. This will preserve the intactness and significance of the place.

Policy 69 Interiors - Fittings and linings (in particular those with asbestos material) can be removed and upgraded where necessary. Any removal should not be extensive in order to maintain the integrity of the interiors. Replacement material should be consistent with the existing fittings and linings. During their removal, care should be taken in making sure earlier fitting evidence, if identified, are appropriately documented. If possible, reinstatement of previous detailing should be considered when based on historical and physical evidence. Retention of the existing asbestos finishes in-situ without disturbance is safe and will have no safety hazard. These materials can be painted or clad over to maintain them in good condition to prevent any safety risk. As such removal of the asbestos finishes are not required in this case.

Reference should also be made to Policy 58

Policy 70 Flooring - Should it be required, the existing floorings can be replaced with similar one. Retain and conserve or record evidence of any original or early flooring.

Policy 71 Services - Ensure that the upgrading of services in the grounds as well as to built fabric, minimises impact on significant fabric; locate these services in areas designed for, or previously damaged by, services, use fixings which do not damage significant fabric. Retain and conserve or record evidence of any original or early services if uncovered in the course of maintenance or future modifications to services. These should be recorded and added to the existing archive of the place.

Policy 72 Mounting of solar panels (either photovoltaic or hot water heating) on the roof plane of the Cottage or any structure within the site is not acceptable. If necessary, solar panels (either photovoltaic or hot water heating) may be incorporated into the design of the new amenities building (if constructed) in a discreet and sympathetic manner. Solar hot water panels with integrated storage tanks are not to be used. Use separate tanks at ground level in the rear yard.

Policy 73 Rainwater tanks should not be installed within the publicly accessible areas of the site including the surroundings of the Cottage. If desired,

	rainwater tanks can be installed at the rear of the new amenities building (if constructed) where they cannot be seen from a public place.
Policy 74	Windows and Doors - All original windows and any original door fabric should be preserved, restored or reconstructed as applicable. Reconstruction and restoration work on the significant windows and doors should be based on historical and physical evidence.
Policy 75	Windows and Doors - It is preferable that new openings are not introduced to the buildings. Where new openings are required to enhance viability of the new future use(s) they should be placed in areas that would be in line with the existing proportions and fenestration of the structures. All interventions in relation to the new openings should be carefully considered to maintain the overall form and facade fenestrations of the structures.
Policy 76	Roofing and External Walls – where asbestos has been identified elements should be carefully treated in accordance with HAZMAT consultant recommendations and minimise impact on the overall original fabric.
Policy 77	External Lighting – It is not recommended to affix any external lighting to the buildings. Any new light fittings should be located as such to minimise impact on significant fabric and be capable of reversal.
Policy 78	Internal Lighting – Internal lighting should be suspended if they are fixed to the original timber board ceilings. Light fittings to the later suspended ceilings can be set into the ceiling panels similar to those existing.
Policy 79	Drainage - Any new works in this regard should follow the general conservation principles of this document having regard to impacts on significant fabric.  Undertake regular inspection of the site, in particular the areas above the roofs of the underground structures and tunnels to ensure no water is pooling and is redirected to an adequately mapped drainage network. Ensure there is sufficient amount of soil above the roofs of these underground spaces and prevent soil erosion by maintaining grassed landscaping.
Policy 80	Significant Finishes - Preserve all original external and internal finishes. Do not paint or render previously unpainted surfaces on any account. Always utilise expert heritage conservation advice when carrying out work to significant elements or involve intervention to an element adjoining fabric of heritage significance.
Policy 81	New roof plumbing, such as downpipes and gutters, shall be constructed in traditional shapes and detailed in appropriate materials. Where metal comes into contact with other materials ensure compatibility to avoid electrolytic corrosion and general deterioration.
Policy 82	The existing colour schemes both internally and externally should be maintained as they conform to the simplicity and overall military uses of the structures. Any future colour schemes should be selected in a similar natural and off-white palette unless otherwise informed by paint scraping.
Policy 83	Any new services required for installation within any structures on the sites or within the site generally are to be sympathetic and not impact on the fabric of the site. The location for new services and process for



	installation are to be considered in consultation with a heritage professional.
Policy 84	All built structures owned by Newcastle City Council and within the SHR curtilage are to be included on the Newcastle City Council building assets list to ensure protection and the ongoing maintenance of the sites and structures.
Policy 85	Vegetation and rubbish is to be periodically cleaned from the Park Battery, no.1 gun and bunker. This includes the interiors of the structure, roof and surrounds.
Policy 86	Graffiti is to also be removed from the Park Battery, no.1 gun and bunker in consultation with a heritage specialist. A plan is to be established to prevent and manage graffiti. This should include a schedule of security and monitoring of the site.

#### 10.7.6 Interpretation and Signage

Policy 87	An Interpretation Strategy should be prepared which establishes further interpretative actions and media that could be incorporated within the site and future adaptive reuses of the structures on the site. The recommended interpretive actions should be implemented at the first opportunity to ensure the heritage layered story of the Shepherds Hill Defence Group Military Installations is adequately conveyed to future generations.
Policy 88	There is some potential for external signage within the Shepherds Hill Defence Group Military Installations. New signage should be designed, detailed and located in consultation with a heritage professional, in order to minimise any potential impact on the heritage significance of the site and its structures.
Policy 89	Any new sign should conform to the future Interpretation Strategy and controls of the Newcastle City Council.
Policy 90	Any directional or safety signs for compliance with BCA requirements should be placed in areas that would minimise visual cluttering and aim to fit the purpose of such a sign.

#### 10.7.7 Future Use and Development

Policy 91	Any new use of the site should maintain significant fabric, be respectful and enhance the site's heritage significance. New development of the site should be in line with the long-term management of the heritage significance.
Policy 92	Vertical additions to the existing structures of the site must not be contemplated. There are limited possibilities for future additions within the site and are mainly around the cottage. Any future additions should complement the simple character of the cottage by using similar lightweight construction materials and architectural details in a simpler and complimentary manner. It is preferable to remove the later additions and veranda enclosures around the cottage in order to reinstate its original configuration. If required, any future addition should be limited to the rear and to the footprints of the existing rear lean-to additions. The amenities for a wider community use as part of the adaptive re-use of the cottage should be placed separately in a discreet location with an appropriate scale and footprint.

Policy 93	The planning, design and supervision of any changes to the building fabric or any future development associated with the place should be undertaken in conjunction with persons having relevant expertise and experience in building conservation projects and under the supervision of a suitably qualified heritage architect.
Policy 94	Should the site be used for any of the purposes outlined in Section 9.6.1 or continue to be used as a wedding venue, Newcastle City Council should monitor the site and ensure no unauthorised access is obtained to the sensitive areas of the BOP and the underground structures.
Policy 95	The preservation of the built elements present onsite should take precedence over their adaptive reuse which should only be considered if the significance of the built element can be retained and enhanced.

#### **10.7.8 Listings on Appropriate Registers**

Policy 96	The existing statutory heritage listing on the State Heritage Register provides necessary protection and should be retained. Heritage listings of the sites should also be maintained on the Newcastle Local Environmental Plan.
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#### **10.7.9 Moveable Heritage**

Policy 97	The potential for moveable heritage onsite is considered to be low; however, any potential items found onsite are to be brought to the attention of Newcastle City Council, assessed and conserved according to their association with the site. Any moveable heritage found is to be stored onsite.
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## 12. Appendices

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Appendix B - Schedule of Conservation Works

Appendix C - Long Term Maintenance Plan - Structures

Appendix D - Landscape Maintenance Schedule

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Appendix F - AHIMS Search and Aboriginal Due Diligence Assessment, CPH, September 2017

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Appendix L - Additional Historic Images

Appendix M - ABC1233 Radio Broadcast Notes "Local Treasures - Newcastle's King Edward Park," April 2014, Dr Ann Hardy

Appendix N - S118 NSW Heritage Act Minimum Standards of Maintenance and Repair



## 12.1 Appendix A - Australia ICOMOS Burra Charter, 2013



# THE BURRA CHARTER

The Australia ICOMOS Charter for  
Places of Cultural Significance

2013



Australia ICOMOS Incorporated  
International Council on Monuments and Sites

## ICOMOS

ICOMOS (International Council on Monuments and Sites) is a non-governmental professional organisation formed in 1965, with headquarters in Paris. ICOMOS is primarily concerned with the philosophy, terminology, methodology and techniques of cultural heritage conservation. It is closely linked to UNESCO, particularly in its role under the World Heritage Convention 1972 as UNESCO's principal adviser on cultural matters related to World Heritage. The 11,000 members of ICOMOS include architects, town planners, demographers, archaeologists, geographers, historians, conservators, anthropologists, scientists, engineers and heritage administrators. Members in the 103 countries belonging to ICOMOS are formed into National Committees and participate in a range of conservation projects, research work, intercultural exchanges and cooperative activities. ICOMOS also has 27 International Scientific Committees that focus on particular aspects of the conservation field. ICOMOS members meet triennially in a General Assembly.

## Australia ICOMOS

The Australian National Committee of ICOMOS (Australia ICOMOS) was formed in 1976. It elects an Executive Committee of 15 members, which is responsible for carrying out national programs and participating in decisions of ICOMOS as an international organisation. It provides expert advice as required by ICOMOS, especially in its relationship with the World Heritage Committee. Australia ICOMOS acts as a national and international link between public authorities, institutions and individuals involved in the study and conservation of all places of cultural significance. Australia ICOMOS members participate in a range of conservation activities including site visits, training, conferences and meetings.

## Revision of the Burra Charter

The Burra Charter was first adopted in 1979 at the historic South Australian mining town of Burra. Minor revisions were made in 1981 and 1988, with more substantial changes in 1999.

Following a review this version was adopted by Australia ICOMOS in October 2013.

The review process included replacement of the 1988 Guidelines to the Burra Charter with Practice Notes which are available at: [australia.icomos.org](http://australia.icomos.org)

Australia ICOMOS documents are periodically reviewed and we welcome any comments.

## Citing the Burra Charter

The full reference is *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013*. Initial textual references should be in the form of the *Australia ICOMOS Burra Charter, 2013* and later references in the short form (*Burra Charter*).

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The Burra Charter consists of the Preamble, Articles, Explanatory Notes and the flow chart.

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Cover photograph by Ian Stapleton.

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# The Burra Charter

(The Australia ICOMOS Charter for Places of Cultural Significance, 2013)

## Preamble

Considering the International Charter for the Conservation and Restoration of Monuments and Sites (Venice 1964), and the Resolutions of the 5th General Assembly of the International Council on Monuments and Sites (ICOMOS) (Moscow 1978), the Burra Charter was adopted by Australia ICOMOS (the Australian National Committee of ICOMOS) on 19 August 1979 at Burra, South Australia. Revisions were adopted on 23 February 1981, 23 April 1988, 26 November 1999 and 31 October 2013.

The Burra Charter provides guidance for the conservation and management of places of cultural significance (cultural heritage places), and is based on the knowledge and experience of Australia ICOMOS members.

Conservation is an integral part of the management of places of cultural significance and is an ongoing responsibility.

Who is the Charter for?

The Charter sets a standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance, including owners, managers and custodians.

Using the Charter

The Charter should be read as a whole. Many articles are interdependent.

The Charter consists of:

- Definitions Article 1
- Conservation Principles Articles 2–13
- Conservation Processes Articles 14–25
- Conservation Practices Articles 26–34
- The Burra Charter Process flow chart.

The key concepts are included in the Conservation Principles section and these are further developed in the Conservation Processes and Conservation Practice sections. The flow chart explains the Burra Charter Process (Article 6) and is an integral part of

the Charter. Explanatory Notes also form part of the Charter.

The Charter is self-contained, but aspects of its use and application are further explained, in a series of Australia ICOMOS Practice Notes, in *The Illustrated Burra Charter*, and in other guiding documents available from the Australia ICOMOS web site: [australia.icomos.org](http://australia.icomos.org).

What places does the Charter apply to?

The Charter can be applied to all types of places of cultural significance including natural, Indigenous and historic places with cultural values.

The standards of other organisations may also be relevant. These include the *Australian Natural Heritage Charter*, *Ask First: a guide to respecting Indigenous heritage places and values* and *Significance 2.0: a guide to assessing the significance of collections*.

National and international charters and other doctrine may be relevant. See [australia.icomos.org](http://australia.icomos.org).

Why conserve?

Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records, that are important expressions of Australian identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about who we are and the past that has formed us and the Australian landscape. They are irreplaceable and precious.

These places of cultural significance must be conserved for present and future generations in accordance with the principle of inter-generational equity.

The Burra Charter advocates a cautious approach to change: do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained.



## Article 1. Definitions

For the purposes of this Charter:

- 1.1 *Place* means a geographically defined area. It may include elements, objects, spaces and views. Place may have tangible and intangible dimensions.
- 1.2 *Cultural significance* means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.  
  
Cultural significance is embodied in the *place* itself, its *fabric*, *setting*, *use*, *associations*, *meanings*, *records*, *related places* and *related objects*.  
  
Places may have a range of values for different individuals or groups.
- 1.3 *Fabric* means all the physical material of the *place* including elements, fixtures, contents and objects.
- 1.4 *Conservation* means all the processes of looking after a *place* so as to retain its *cultural significance*.
- 1.5 *Maintenance* means the continuous protective care of a *place*, and its *setting*.  
  
Maintenance is to be distinguished from repair which involves *restoration* or *reconstruction*.
- 1.6 *Preservation* means maintaining a *place* in its existing state and retarding deterioration.
- 1.7 *Restoration* means returning a *place* to a known earlier state by removing accretions or by reassembling existing elements without the introduction of new material.
- 1.8 *Reconstruction* means returning a *place* to a known earlier state and is distinguished from *restoration* by the introduction of new material.
- 1.9 *Adaptation* means changing a *place* to suit the existing *use* or a proposed use.
- 1.10 *Use* means the functions of a *place*, including the activities and traditional and customary practices that may occur at the place or are dependent on the place.

Place has a broad scope and includes natural and cultural features. Place can be large or small: for example, a memorial, a tree, an individual building or group of buildings, the location of an historical event, an urban area or town, a cultural landscape, a garden, an industrial plant, a shipwreck, a site with in situ remains, a stone arrangement, a road or travel route, a community meeting place, a site with spiritual or religious connections.

The term cultural significance is synonymous with cultural heritage significance and cultural heritage value.

Cultural significance may change over time and with use.

Understanding of cultural significance may change as a result of new information.

Fabric includes building interiors and sub-surface remains, as well as excavated material.

Natural elements of a place may also constitute fabric. For example the rocks that signify a Dreaming place.

Fabric may define spaces and views and these may be part of the significance of the place.

See also Article 14.

Examples of protective care include:

- maintenance — regular inspection and cleaning of a place, e.g. mowing and pruning in a garden;
- repair involving restoration — returning dislodged or relocated fabric to its original location e.g. loose roof gutters on a building or displaced rocks in a stone bora ring;
- repair involving reconstruction — replacing decayed fabric with new fabric

It is recognised that all places and their elements change over time at varying rates.

New material may include recycled material salvaged from other places. This should not be to the detriment of any place of cultural significance.

Use includes for example cultural practices commonly associated with Indigenous peoples such as ceremonies, hunting and fishing, and fulfillment of traditional obligations. Exercising a right of access may be a use.

## Articles

- 1.11 *Compatible use* means a *use* which respects the *cultural significance* of a *place*. Such a use involves no, or minimal, impact on cultural significance.
- 1.12 *Setting* means the immediate and extended environment of a *place* that is part of or contributes to its *cultural significance* and distinctive character.
- 1.13 *Related place* means a *place* that contributes to the *cultural significance* of another place.
- 1.14 *Related object* means an object that contributes to the *cultural significance* of a *place* but is not at the place.
- 1.15 *Associations* mean the connections that exist between people and a *place*.
- 1.16 *Meanings* denote what a *place* signifies, indicates, evokes or expresses to people.
- 1.17 *Interpretation* means all the ways of presenting the *cultural significance* of a *place*.

## Conservation Principles

### Article 2. Conservation and management

- 2.1 *Places of cultural significance* should be conserved.
- 2.2 The aim of *conservation* is to retain the *cultural significance* of a *place*.
- 2.3 *Conservation* is an integral part of good management of *places of cultural significance*.
- 2.4 *Places of cultural significance* should be safeguarded and not put at risk or left in a vulnerable state.

### Article 3. Cautious approach

- 3.1 *Conservation* is based on a respect for the existing *fabric, use, associations* and *meanings*. It requires a cautious approach of changing as much as necessary but as little as possible.
- 3.2 Changes to a *place* should not distort the physical or other evidence it provides, nor be based on conjecture.

### Article 4. Knowledge, skills and techniques

- 4.1 *Conservation* should make use of all the knowledge, skills and disciplines which can contribute to the study and care of the *place*.

## Explanatory Notes

Setting may include: structures, spaces, land, water and sky; the visual setting including views to and from the place, and along a cultural route; and other sensory aspects of the setting such as smells and sounds. Setting may also include historical and contemporary relationships, such as use and activities, social and spiritual practices, and relationships with other places, both tangible and intangible.

Objects at a place are encompassed by the definition of place, and may or may not contribute to its cultural significance.

Associations may include social or spiritual values and cultural responsibilities for a place.

Meanings generally relate to intangible dimensions such as symbolic qualities and memories.

Interpretation may be a combination of the treatment of the fabric (e.g. maintenance, restoration, reconstruction); the use of and activities at the place; and the use of introduced explanatory material.

The traces of additions, alterations and earlier treatments to the fabric of a place are evidence of its history and uses which may be part of its significance. Conservation action should assist and not impede their understanding.

## Articles

- 4.2 Traditional techniques and materials are preferred for the *conservation* of significant *fabric*. In some circumstances modern techniques and materials which offer substantial conservation benefits may be appropriate.

## Article 5. Values

- 5.1 *Conservation* of a *place* should identify and take into consideration all aspects of cultural and natural significance without unwarranted emphasis on any one value at the expense of others.
- 5.2 Relative degrees of *cultural significance* may lead to different *conservation* actions at a place.

## Article 6. Burra Charter Process

- 6.1 The *cultural significance* of a *place* and other issues affecting its future are best understood by a sequence of collecting and analysing information before making decisions. Understanding cultural significance comes first, then development of policy and finally management of the place in accordance with the policy. This is the Burra Charter Process.
- 6.2 Policy for managing a *place* must be based on an understanding of its *cultural significance*.
- 6.3 Policy development should also include consideration of other factors affecting the future of a *place* such as the owner's needs, resources, external constraints and its physical condition.
- 6.4 In developing an effective policy, different ways to retain *cultural significance* and address other factors may need to be explored.
- 6.5 Changes in circumstances, or new information or perspectives, may require reiteration of part or all of the Burra Charter Process.

## Article 7. Use

- 7.1 Where the *use* of a *place* is of *cultural significance* it should be retained.
- 7.2 A *place* should have a *compatible use*.

## Explanatory Notes

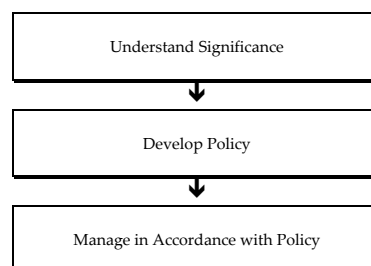
The use of modern materials and techniques must be supported by firm scientific evidence or by a body of experience.

Conservation of places with natural significance is explained in the Australian Natural Heritage Charter. This Charter defines natural significance to mean the importance of ecosystems, biodiversity and geodiversity for their existence value or for present or future generations, in terms of their scientific, social, aesthetic and life-support value.

In some cultures, natural and cultural values are indivisible.

A cautious approach is needed, as understanding of cultural significance may change. This article should not be used to justify actions which do not retain cultural significance.

The Burra Charter Process, or sequence of investigations, decisions and actions, is illustrated below and in more detail in the accompanying flow chart which forms part of the Charter.



Options considered may include a range of uses and changes (e.g. adaptation) to a place.

The policy should identify a use or combination of uses or constraints on uses that retain the cultural significance of the place. New use of a place should involve minimal change to significant fabric and use; should respect associations and meanings; and where appropriate should provide for continuation of activities and practices which contribute to the cultural significance of the place.

## Articles

### Article 8. Setting

*Conservation* requires the retention of an appropriate *setting*. This includes retention of the visual and sensory setting, as well as the retention of spiritual and other cultural relationships that contribute to the *cultural significance* of the *place*.

New construction, demolition, intrusions or other changes which would adversely affect the setting or relationships are not appropriate.

### Article 9. Location

- 9.1 The physical location of a *place* is part of its *cultural significance*. A building, work or other element of a place should remain in its historical location. Relocation is generally unacceptable unless this is the sole practical means of ensuring its survival.
- 9.2 Some buildings, works or other elements of *places* were designed to be readily removable or already have a history of relocation. Provided such buildings, works or other elements do not have significant links with their present location, removal may be appropriate.
- 9.3 If any building, work or other element is moved, it should be moved to an appropriate location and given an appropriate *use*. Such action should not be to the detriment of any *place* of *cultural significance*.

### Article 10. Contents

Contents, fixtures and objects which contribute to the *cultural significance* of a *place* should be retained at that place. Their removal is unacceptable unless it is: the sole means of ensuring their security and *preservation*; on a temporary basis for treatment or exhibition; for cultural reasons; for health and safety; or to protect the place. Such contents, fixtures and objects should be returned where circumstances permit and it is culturally appropriate.

### Article 11. Related places and objects

The contribution which *related places* and *related objects* make to the *cultural significance* of the *place* should be retained.

### Article 12. Participation

*Conservation*, *interpretation* and management of a *place* should provide for the participation of people for whom the place has significant *associations* and *meanings*, or who have social, spiritual or other cultural responsibilities for the place.

### Article 13. Co-existence of cultural values

Co-existence of cultural values should always be recognised, respected and encouraged. This is especially important in cases where they conflict.

## Explanatory Notes

Setting is explained in Article 1.12.

For example, the repatriation (returning) of an object or element to a place may be important to Indigenous cultures, and may be essential to the retention of its cultural significance.

Article 28 covers the circumstances where significant fabric might be disturbed, for example, during archaeological excavation.

Article 33 deals with significant fabric that has been removed from a place.

For some places, conflicting cultural values may affect policy development and management decisions. In Article 13, the term cultural values refers to those beliefs which are important to a cultural group, including but not limited to political, religious, spiritual and moral beliefs. This is broader than values associated with cultural significance.



# Conservation Processes

## Article 14. Conservation processes

*Conservation* may, according to circumstance, include the processes of: retention or reintroduction of a *use*; retention of *associations* and *meanings*; *maintenance*, *preservation*, *restoration*, *reconstruction*, *adaptation* and *interpretation*; and will commonly include a combination of more than one of these. Conservation may also include retention of the contribution that *related places* and *related objects* make to the *cultural significance* of a *place*.

## Article 15. Change

15.1 Change may be necessary to retain *cultural significance*, but is undesirable where it reduces cultural significance. The amount of change to a *place* and its *use* should be guided by the *cultural significance* of the place and its appropriate *interpretation*.

15.2 Changes which reduce *cultural significance* should be reversible, and be reversed when circumstances permit.

15.3 Demolition of significant *fabric* of a *place* is generally not acceptable. However, in some cases minor demolition may be appropriate as part of *conservation*. Removed significant fabric should be reinstated when circumstances permit.

15.4 The contributions of all aspects of *cultural significance* of a *place* should be respected. If a place includes *fabric*, *uses*, *associations* or *meanings* of different periods, or different aspects of cultural significance, emphasising or interpreting one period or aspect at the expense of another can only be justified when what is left out, removed or diminished is of slight cultural significance and that which is emphasised or interpreted is of much greater cultural significance.

## Article 16. Maintenance

*Maintenance* is fundamental to *conservation*. Maintenance should be undertaken where *fabric* is of *cultural significance* and its maintenance is necessary to retain that *cultural significance*.

## Article 17. Preservation

*Preservation* is appropriate where the existing *fabric* or its condition constitutes evidence of *cultural significance*, or where insufficient evidence is available to allow other *conservation* processes to be carried out.

Conservation normally seeks to slow deterioration unless the significance of the place dictates otherwise. There may be circumstances where no action is required to achieve conservation.

When change is being considered, including for a temporary use, a range of options should be explored to seek the option which minimises any reduction to its cultural significance.

It may be appropriate to change a place where this reflects a change in cultural meanings or practices at the place, but the significance of the place should always be respected.

Reversible changes should be considered temporary. Non-reversible change should only be used as a last resort and should not prevent future conservation action.

Maintaining a place may be important to the fulfilment of traditional laws and customs in some Indigenous communities and other cultural groups.

Preservation protects fabric without obscuring evidence of its construction and use. The process should always be applied:

- where the evidence of the fabric is of such significance that it should not be altered; or
- where insufficient investigation has been carried out to permit policy decisions to be taken in accord with Articles 26 to 28.

New work (e.g. stabilisation) may be carried out in association with preservation when its purpose is the physical protection of the fabric and when it is consistent with Article 22.

## Articles

### Article 18. Restoration and reconstruction

*Restoration and reconstruction* should reveal culturally significant aspects of the *place*.

### Article 19. Restoration

*Restoration* is appropriate only if there is sufficient evidence of an earlier state of the *fabric*.

### Article 20. Reconstruction

20.1 *Reconstruction* is appropriate only where a *place* is incomplete through damage or alteration, and only where there is sufficient evidence to reproduce an earlier state of the *fabric*. In some cases, reconstruction may also be appropriate as part of a *use* or practice that retains the *cultural significance* of the place.

20.2 *Reconstruction* should be identifiable on close inspection or through additional *interpretation*.

### Article 21. Adaptation

21.1 *Adaptation* is acceptable only where the adaptation has minimal impact on the *cultural significance* of the *place*.

21.2 *Adaptation* should involve minimal change to significant *fabric*, achieved only after considering alternatives.

### Article 22. New work

22.1 New work such as additions or other changes to the *place* may be acceptable where it respects and does not distort or obscure the *cultural significance* of the place, or detract from its *interpretation* and appreciation.

22.2 New work should be readily identifiable as such, but must respect and have minimal impact on the *cultural significance* of the *place*.

### Article 23. Retaining or reintroducing use

Retaining, modifying or reintroducing a significant *use* may be appropriate and preferred forms of *conservation*.

### Article 24. Retaining associations and meanings

24.1 Significant *associations* between people and a *place* should be respected, retained and not obscured. Opportunities for the *interpretation*, commemoration and celebration of these associations should be investigated and implemented.

24.2 Significant *meanings*, including spiritual values, of a *place* should be respected. Opportunities for the continuation or revival of these meanings should be investigated and implemented.

## Explanatory Notes

Places with social or spiritual value may warrant reconstruction, even though very little may remain (e.g. only building footings or tree stumps following fire, flood or storm). The requirement for sufficient evidence to reproduce an earlier state still applies.

Adaptation may involve additions to the place, the introduction of new services, or a new use, or changes to safeguard the place. Adaptation of a place for a new use is often referred to as 'adaptive re-use' and should be consistent with Article 7.2.

New work should respect the significance of a place through consideration of its siting, bulk, form, scale, character, colour, texture and material. Imitation should generally be avoided.

New work should be consistent with Articles 3, 5, 8, 15, 21 and 22.1.

These may require changes to significant fabric but they should be minimised. In some cases, continuing a significant use, activity or practice may involve substantial new work.

For many places associations will be linked to aspects of use, including activities and practices.

Some associations and meanings may not be apparent and will require research.

## Article 25. Interpretation

The *cultural significance* of many *places* is not readily apparent, and should be explained by *interpretation*. Interpretation should enhance understanding and engagement, and be culturally appropriate.

In some circumstances any form of interpretation may be culturally inappropriate.

## Conservation Practice

## Article 26. Applying the Burra Charter Process

26.1 Work on a *place* should be preceded by studies to understand the place which should include analysis of physical, documentary, oral and other evidence, drawing on appropriate knowledge, skills and disciplines.

The results of studies should be kept up to date, regularly reviewed and revised as necessary.

26.2 Written statements of *cultural significance* and policy for the *place* should be prepared, justified and accompanied by supporting evidence. The statements of significance and policy should be incorporated into a management plan for the place.

Policy should address all relevant issues, e.g. use, interpretation, management and change.

A management plan is a useful document for recording the Burra Charter Process, i.e. the steps in planning for and managing a place of cultural significance (Article 6.1 and flow chart). Such plans are often called conservation management plans and sometimes have other names.

The management plan may deal with other matters related to the management of the place.

26.3 Groups and individuals with *associations* with the *place* as well as those involved in its management should be provided with opportunities to contribute to and participate in identifying and understanding the *cultural significance* of the place. Where appropriate they should also have opportunities to participate in its *conservation* and management.

26.4 Statements of *cultural significance* and policy for the *place* should be periodically reviewed, and actions and their consequences monitored to ensure continuing appropriateness and effectiveness.

Monitor actions taken in case there are also unintended consequences.

## Article 27. Managing change

27.1 The impact of proposed changes, including incremental changes, on the *cultural significance* of a *place* should be assessed with reference to the statement of significance and the policy for managing the place. It may be necessary to modify proposed changes to better retain cultural significance.

27.2 Existing *fabric*, *use*, *associations* and *meanings* should be adequately recorded before and after any changes are made to the *place*.

## Article 28. Disturbance of fabric

28.1 Disturbance of significant *fabric* for study, or to obtain evidence, should be minimised. Study of a *place* by any disturbance of the fabric, including archaeological excavation, should only be undertaken to provide data essential for decisions on the *conservation* of the place, or to obtain important evidence about to be lost or made inaccessible.

28.2 Investigation of a *place* which requires disturbance of the *fabric*, apart from that necessary to make decisions, may be appropriate provided that it is consistent with the policy for the place. Such investigation should be based on important research questions which have potential to substantially add to knowledge, which cannot be answered in other ways and which minimises disturbance of significant fabric.

#### Article 29. Responsibility

The organisations and individuals responsible for management and decisions should be named and specific responsibility taken for each decision.

#### Article 30. Direction, supervision and implementation

Competent direction and supervision should be maintained at all stages, and any changes should be implemented by people with appropriate knowledge and skills.

#### Article 31. Keeping a log

New evidence may come to light while implementing policy or a plan for a *place*. Other factors may arise and require new decisions. A log of new evidence and additional decisions should be kept.

New decisions should respect and have minimal impact on the cultural significance of the place.

#### Article 32. Records

32.1 The records associated with the *conservation* of a *place* should be placed in a permanent archive and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

32.2 Records about the history of a *place* should be protected and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

#### Article 33. Removed fabric

Significant *fabric* which has been removed from a *place* including contents, fixtures and objects, should be catalogued, and protected in accordance with its *cultural significance*.

Where possible and culturally appropriate, removed significant fabric including contents, fixtures and objects, should be kept at the place.

#### Article 34. Resources

Adequate resources should be provided for *conservation*.

The best conservation often involves the least work and can be inexpensive.

*Words in italics are defined in Article 1.*



# The Burra Charter Process

Steps in planning for and managing a place of cultural significance

The Burra Charter should be read as a whole.

Key articles relevant to each step are shown in the boxes. Article 6 summarises the Burra Charter Process.





## 12.2 Appendix B - Schedule of Conservation Works




# Shepherds Hill Defence Group Schedule of Conservation Works

Shepherds Hill Reserve, The Hill

Submitted to the Council of the City of Newcastle

## Report Revision History

Revision	Date Issued	Prepared by	Reviewed by	Verified by
01	12/09/16	<b>Anna McLaurin</b> <i>Heritage Consultant</i>	<b>Kerime Danis</b> <i>Director - Heritage</i>	<b>Kerime Danis</b> <i>Director - Heritage</i>
02	13/12/16	<b>Kerime Danis</b> <i>Director - Heritage</i>	<b>Kerime Danis</b> <i>Director - Heritage</i>	

*This document is preliminary unless approved by a Director of City Plan Heritage.*

### CERTIFICATION

This report has been authorised by City Plan Heritage, with input from a number of other expert consultants, on behalf of the Client. The accuracy of the information contained herein is to the best of our knowledge not false or misleading. The comments have been based upon information and facts that were correct at the time of writing this report.

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## A. Heritage Specifications

The following section include general Heritage Specifications and the Schedule of Conservation Works to guide the future and short term conservation works to *The Shepherds Hill Defence Group* as part of its adaptive reuse. Some of the specifications and guidelines may not be required or considered relevant for the planned conservation works to the cottage; however, they are included to guide any future conservation works in order to ensure works to *The Shepherds Hill Defence Group*, as a whole, are carried out in an appropriate manner.

### General Heritage Specifications

The following general Heritage Specifications have been prepared as a guideline to support the Schedule of Conservation Works of *The Shepherds Hill Defence Group* at 41 The Terrace, Newcastle. The Australia ICOMOS Burra Charter, J. S. Kerr's The Conservation Plan, and "The Maintenance of Heritage Assets: A Practical Guide" and the "Heritage Information Series" prepared by the NSW Heritage Office are used as a reference for the preparation of this Schedule.

### Author Identification

This Schedule has been prepared by Anna McLaurin, Heritage Consultant in association with Kerime Danis, Director - Heritage, who has also reviewed the Schedule. It incorporates the findings of previous studies pertinent to the site as well as notes taken during a site inspection with Newcastle City Council Officers, and CPH appointed Structural Engineer (Alex Been Mott MacDonald) and Archaeologist (Iain Stewart, JCIS Consultants).

The following previous reports have been consulted in the preparation of the following specifications and schedule of conservation works:

- Statement of Heritage Impact, Proposed Report and Reconstruction of Shepherds Hill Cottage, The Hill, City of Newcastle, John Carr Heritage Design, 22 December 2015;
- Shepherds Hill Cottage and Surrounds, A Conservation Study, 1981, Browne;
- Structural Engineers Report - Mott MacDonald Australia, June 2016;
- Archaeological Assessment - JCIS Consultants, June 2016.

### Generally

The works should be carried out in strict accordance with these Specifications, the Schedule of Conservation Works, and the relevant structural, construction drawings and specifications. Should any future drawings and instructions be issued or given during the progress of the works they should conform to these specifications.

This Schedule of Conservation Works should be read in conjunction with Construction Drawings, Structural Engineer's drawings and recommendations detailed in the documentation identified above.

# 1. Part One

## 1.1 Definitions

The following definitions are general descriptions only and may need to be expanded for some specific trades, which require specialist work.

**FABRIC:** All physical material of the place including components, fixtures, contents, and objects.

**PATCH:** Repairing the defect and damaged timber work, brickwork or floorboards. Where 'patch' is necessary, carefully check out defective areas of fabric without excessively interfering with sound fabric and make sure that patching material matches the original fabric as close as possible in all aspects (colour, grain, bedding, durability, porosity and chemical composition) or use salvaged material as much as possible. The repaired section should show minimum evidence of patching.

**PRESERVE:** To keep and retain the original significant fabric of the building and to ensure the significant fabric is not damaged.

**RESTORE:** Reinstating of a fabric to its earlier known state where sufficient evidence is available.

**REMOVE:** To take out the non-significant and intrusive elements, and harmful substances. Where scheduled "remove" make sure the appropriate methods are used and the original fabric is not damaged. Apply the minimal intervention philosophy to the fabric in all removal works. Avoid the use of electric saws or pneumatic hammers. Some removals may require specialist work such as paint & graffiti on the walls.

Provide access and allow time for archival recording by the heritage architect during the removal of fabric where an earlier detailing is exposed or required.

**REPLACE:** Where specified "replace" carefully remove the entire section of element to be replaced, and replace with new work to match the existing or as specified in the Schedule of Conservation Works exactly in regard to the materials, profiles and finishes.

Guidelines for spliced repairs:

- Where specified replace a portion of a single member such as a wall or floor board repair by spliced or a scarfed joint.
- It is preferable the spliced or scarfed joints to have diagonal ends with the direction of the diagonal end be selected in a way to preserve as much original fabric as possible.
- Use a marine grade epoxy adhesive when making spliced and scarfed joints.
- Re-point: When required, re-point exposed portions of brick walls only where existing mortar is unsound or where sufficient mortar is missing.

**RETAIN:** Where scheduled "retain" ensure the element is retained in-situ or as specified in the Schedule of Conservation Works, and treated in accordance to all details and specifications (including construction drawings, heritage, structural engineer and services).

**SALVAGE:** Recovering a nominated fabric and saving for re-use. Carefully remove the nominated fabric to be salvaged including bricks, floorboards, corrugated iron cladding, machinery, doors and fixing. Do not damage the fabric both to be salvaged and the surrounding fabric. Store in a safe and secure place with appropriate labelling as instructed by the heritage architect, ensuring the element will not be damaged, until to be reused where nominated.

**REPAIR:** Where scheduled repair or refix, replace any missing or damaged material only and fix new material to match existing adjacent finish. Or refix sound but dislodged material.

**PAINT:** Paint finishes to be applied only to surfaces scheduled which are previously painted.

DO NOT PAINT previously UN-PAINTED surfaces without the approval of the heritage architect.

Clean, firm and dry all surfaces to be painted before the application of any paint.

## 1.2 Responsibilities of the Construction Manager

As part of their responsibilities in understanding the significance of The Shepherds Hill Defence Group and the condition of the site, the representative(s) of the construction manager and trade contractors shall walk through the whole site and buildings/ structures with the heritage architect to familiarise themselves with significant fabric and other issues for the successful implementation of the conservation works. All people involved in the conservation of The Shepherds Hill Defence Group are to be familiar with their relevant heritage responsibilities.

## 1.3 Execution of Works

The works shall be executed in a first-class tradesman like fashion to the true intent and meaning of the construction drawings, specifications, schedule of conservation works and all any further drawings, details and instructions issued.

Materials and techniques used shall fully comply with the relevant standard specifications issued by Standards Australia, and to the nature of *The Shepherds Hill Defence Group* materials and techniques. All materials to be new, defect-free except where demolished or removed materials have been approved by the heritage architect for re-use.

Discrepancies in the drawings and the specifications shall be immediately brought to the heritage architect's attention for direction before proceeding with the relevant part of the works. In case of any confusion or conflict in the documents, the contractor should consult the heritage architect for a decision/ clarification.

## 1.4 Heritage Architect's & Council's Heritage Advisor's Inspections

The construction manager and trade contractors shall allow, co-operate and facilitate the inspection of the works by the heritage architect, and the Council's Heritage Advisor and the at agreed frequent intervals, in accordance with a specified program schedule or more if necessary. The contractor shall provide a work program in order to organise the necessary inspections, by the heritage architect and the Council's Heritage Advisor, on appropriate and necessary dates. The contractor, structural engineers or project architects shall provide all drawings and related specifications (architectural, construction details, structural, services), which are approved by the Council or the relevant authority, to the heritage architect.

## 1.5 Damages

The contractor shall make the workmen and subcontractors aware that some sections of the built elements that make up the Shepherds Hill Defence Group are very important and fragile. The contractor shall be responsible for all damage caused by anyone for whom the contractor is responsible.

## 1.6 Variations

The contractor shall not depart from the drawings and specifications in implementing the conservation and restoration works. The contractor shall not use alternative details and materials unless approved by the project architect, building manager and the heritage architect.



## 2. Part Two

### 2.1 Demolition/Removal of Fabric

- All demolition works shall be carried out in accordance with the construction drawings and structural engineer's conservation works drawings and specifications. All demolition works, where scheduled, are to be carried out carefully and systematically with as minimal shock as possible and strictly in accordance with the Methodology. Ensure the extant significant fabric of The Shepherds Hill Defence Group that is nominated for retention is not damaged.
- Support the structures where necessary, and as specified by the structural engineers, ensuring against any damage until the associated new work is complete (This is particularly important when replacing the veranda posts).
- If any confusion arise whether any element, which is salvaged during the demolition, shall be preserved or not, the contractor shall stop the work and notify the project architect (construction manager) to seek further instructions from the heritage architect.
- The remaining demolished materials are to be carted from the site and deposited according to the rules of the local authority.
- During the demolition should any evidence of previous configurations of the structures within Shepherds Hill Defence Group site such as dislodged, reused, covered or discarded parts be found, the works to that part of the structure is to be stopped and the instructions of the heritage architect be sought by the project architect (or construction manager) and allow for their archival recording. Consultation with the Heritage Architect should be undertaken to discuss whether this newly founded fabric should be retained and conserved.

### 2.2 Concrete Specific Conservation

- Where possible, use a non-destructive technique, such as ground penetrating radar, to analyse the composition and structural integrity of concrete elements.
- To conduct an analysis of the concrete condition, samples of the concrete will be required. In lieu of traditional concrete coring, use the "Pull Out Test" should be undertaken. This method is a less invasive option that produces a much smaller cores.
- Core samples using the "Pull Out Test" should be undertaken in less prominent positions.
- Cover Meter Surveys should be undertaken prior to any coring to determine how far the rebars are underneath the surface. Coring through rebars should be avoided.
- Do not paint and/or render previously unpainted or un-rendered sections of the building/ site elements on any account unless instructed or nominated otherwise.
- A silane tested to withstand at least five years of ocean-side exposure can coat the exterior to prevent further ion penetration. The application of a silane should stop the ingress of water and chloride ions damaging the underlying reinforcing bar

### 2.3 Masonry/Bricklayer

- Do not paint and/or render previously unpainted or un-rendered sections of the building/ site elements on any account unless Instructed or nominated otherwise

#### **Patching:**

- Patch repair where necessary and make good to match the existing adjacent brickwork/concrete and render. Where possible re-use salvaged material.

### **Re-pointing:**

- Re-point only where existing mortar of exposed masonry walls is unsound or where sufficient mortar is missing, match existing sound joints as determined by examination of surrounding areas and approved by the heritage architect.

Unless otherwise specified, the following lime mortar mixes to be used for all re-pointing works:

- 1 part lime (use hydrated lime)
- 3 parts sand (clean, sharp, free from impurities and salt)

Or

- 1 part cement (best Portland cement)
- 1 part lime (use hydrated lime)
- 6 parts sand (clean, sharp, free from impurities and salt)

### **Preserving:**

- Ensure the significant external and internal elements that are identified as original and ranked as High and Moderate in the Conservation Management Plan for the site beside the elements nominated in the Schedule of Conservation Works are preserved.

## **2.4 Carpentry & Joinery**

- Joinery removed during the asbestos removal works should be reinstated where possible to match the 1890s detailing.
- All material, to be used for repair or new joinery, is to be the best of their kind and to be kept true, free from twist and other distortion.
- It is preferable to use one type of timber species for repair work matching the density and strength of the original or early existing timber. It would be best to have the species confirmed before ordering any new timber.
- Use salvaged timber where possible.
- Prepare and paint windows and doors in accordance with the project architect's specifications unless otherwise specified in the Schedule of Conservation Works.
- Retain and preserve all extant original door and window fabric, any hardware and fixing as nominated by the heritage architect.
- Inspect and refurbish exiting hardware to working order as much as possible and practicable.
- All original fabric including timber wall studs/nogging, floorboards and ceiling joists / beams are to be retained and patch repaired where necessary or as specified. Where missing sections of an element is required to be reproduced the new element is to match size, species and profile of the existing in line with its period of construction (e.g. for the Cottage either 1890s or 1920s detailing to apply).
- Respect the original work and follow the original joiner's methods.
- Employ the principal of retaining as much original fabric as possible by only removing the minimum amount of decayed or damaged timber.
- Consult with the heritage architect to identify best practice for allowing any new work to be recognisable but in a subtle way.
- Retain and respect the patina of the timber/ joinery as evidence of its age and life where applicable. Retain evidence of wear and tear; do not attempt to make the element look as new.

- Make repairs in-situ where possible and practical particularly if the element is fragile. Retain original fixings wherever possible.
- If an element needs to be removed or dismantled for repair, first photograph the whole assembly, then mark and record all of the parts, including glass panes (as applicable), so that they can be reassembled in the same order. Marking shall be made on the back where the identification will not be lost during conservation work. Use of diagonally placed series of masking type strips will also ensure reassembly of in particular timber floorboards in the same order.
- Whenever modifications is made to the structures / spaces:
  - All changes or new work shall be carried out in a reversible or removable way, if required at a later day.
  - All new fixing methods, where applicable, shall be reversible to allow for later removal, repair or refixing of an element without risk of damage to the surrounding original fabric.
  - Use the same fixing methods as the original. Use earlier fixing points where possible rather than creating new ones.
  - Select fixing points in locations that there will be no damage of risk to significant fabric such as fracturing or splitting.
  - When fixing a new item to a significant fabric, choose a location and method that will easily be repaired or disguised if the item be removed at a later date.
- Tighten loose joints in door leaves and window sashes by removal of wedges, if possible, and glue worked into the joint. Use weak glue to allow future repairs.
- Ensure drip grooves and anti-capillary grooves are cleaned of excess paint so they remain functioning.

## 2.5 Roofer and Roof Plumber

- Remove remnant roof sheeting and reclad the cottage with galvanised corrugated metal sheeting as specified.
- Ensure form and detailing of the new roofing matches the existing exactly.
- Install new gutters and downpipes where necessary in appropriate non-corrosive material to match the size, material, profile, fixing and finish of the existing damaged gutters and downpipes.

## 2.6 Electric, Water Services and Sanitary Plumbing

- Where required new services and cables should be installed within the cavity of the stud walls as specified in the future drawings.

## 2.7 Metal Worker

- All material, to be used for repair or new steel, is to be the best of their kind and to be kept true, free from twist and other distortion

## 2.8 Glazier

- It is preferable to use salvaged glass of the same period otherwise use new glass clearly showing as new work for the windows of the Cottage.
- All other glazing to be new.
- Where the original window frame is salvaged and nominated for reuse: If risk of damage is low, chisel out any existing/remnant cracked putty otherwise use gentle heating or cut out putty with a router. Ensure the leg of the glazing bar is not damaged. Use traditional linseed oil putty.

## B. Schedule of Conservation Works

The following Schedule of Conservation Works has been prepared for the preservation and restoration of The Shepherds Hill Defence Group and it should be read in conjunction with the Heritage Specifications above.

Italics in the table below refer to the *Burra Charter* 2013 terminology.

Note: The Battery Observation Post and Cottage are considered to be in a poor condition and require immediate attention. As such, works detailed below for these two structures should be undertaken within the next 6-18 months. Other works identified to the site should be undertaken within 2-5 years.

WORK CATEGORY	WORK DESCRIPTION	Sign-off by Heritage Architect	Sign-off by Council's Heritage Advisor
a) Removal of intrusive items	<b>General:</b> Remove all redundant services, cables and non-original fixings to external elevations and internal spaces. Patch repair fabric following the removal where necessary and as specified.		
b) Reconstruction of significant elements	<b>COTTAGE</b> <b>Internal</b> <ul style="list-style-type: none"> <li>Replace missing architrave to Living Room with similar detailing to the opposite room door.</li> <li>Undertake a paint scraping to establish original colour or finish of architraves, door, walls and frames. Restore to original appearance in line with results from paint scraping.</li> <li>Maintain existing rooms layout, detailing and finishes.</li> <li>Reinstate the chimney damaged during the April 2015 storm with additional structural reinforcement in accordance with Section 9.5, Policy 17 of the CMP. Use bricks salvaged from site.</li> <li>Remove lead based paint where damaged.</li> <li>Restore and preserve fireplaces. Remove paintwork.</li> <li>Reinstate picture rails and skirtings to match the existing or if known, the original construction detailing.</li> <li>Should opportunity arise, remove later timber floor and investigate an appropriate system for removing rising damp problems. This decision should be made in consultation with the Heritage Architect.</li> <li>Restore the damaged ceiling to original appearance of its respective construction date (either 1890s or 1920s).</li> <li>Remove and replace timber affected by termites.</li> </ul>		
&			
c) Catch-up maintenance	<b>External</b>		



WORK CATEGORY	WORK DESCRIPTION	Sign-off by Heritage Architect	Sign-off by Council's Heritage Advisor
	<ul style="list-style-type: none"> <li>Remove and replace timber access ramp on northern elevation.</li> <li>Remove chipboard panels from windows</li> <li>Remove paint from the concrete veranda floor.</li> <li>Inspect any damaged timber weatherboard, replace with like for like. Attend to damp issues.</li> <li>Treat rust affected nail joints and remove rust stains from weatherboard.</li> <li>Clean and re-grout existing brickwork pavers</li> <li>Re-Clad roof with corrugated metal. Re-use existing corrugated metal if in a good condition and match the profile of the new roofing.</li> <li>Assess structural integrity of the existing framing members and replace as required in accordance with the structural engineers' specifications.</li> <li>Replace or strengthen decayed timber posts to the veranda, in consultation with the Heritage Architect.</li> </ul>		
	<p><b>BATTERY OBSERVATION POST</b></p> <p><b>Internal</b></p> <ul style="list-style-type: none"> <li>Inspect and identify areas of the graffiti for retention. Selection of graffiti retention should be made in consultation with the Heritage Architect. Prior to commencement of removal works, an appropriate removal methodology is to be established. A sample removal of an area approximately 300 x 300mm is to be undertaken and assessed. After completion of removal provide a sample (approx. 1 x 1m) of anti-graffiti resistant coating 9KEIM PSS 20 surface protection coating is recommended).</li> <li>Patch exposed reinforcing metal bars with concrete using masonry sealer with a similar colour and texture to the existing concrete. Masonry sealer should be compatible to withstand a chlorine rich environment</li> <li>Reuse, where possible the existing timber door frames</li> <li>Assess and attend to drainage issues that are causing the Park Battery (eastern room) to flood.</li> <li>Remove internal concrete debris and rubbish.</li> <li>Level 1, Entry - remove roof slab in accordance with the Structural Engineer's</li> </ul>		

WORK CATEGORY	WORK DESCRIPTION	Sign-off by Heritage Architect	Sign-off by Council's Heritage Advisor
	<p>specifications, as required, due to severe concrete spalling and reinforcement corrosion. Reconstruct to match the existing.</p> <ul style="list-style-type: none"> <li>Level 1, Room 9 - install new supportive structure to the ground in accordance with the Structural Engineer's recommendations and remove loose concrete as required. Continue to monitor for deterioration and adjust supports as required;</li> <li>Level 2, Room 8 - as above and in addition, consider replacing corroded security bars;</li> <li>Level 3, Room 2 - remove loose and drummy render and loose concrete. Patch repair to match existing. Monitor the steel bracket and security grille for deterioration, replace as required before failure, in accordance with the Structural Engineer's specifications.</li> <li>Level 3, Room 6 - remove loose concrete and patch repair roof soffit, column and walls, replace lintel over external door.</li> <li>Level 3, Room 5 - Repair or replace the corroded ladder to Room 10, remove loose concrete and patch repair roof soffit.</li> <li>Level 3, Room 4 - remove loose concrete and patch repair roof soffit, replace corroded west window security grilles, monitor corroded corbel and bracket and replace as required.</li> <li>Level 3, Room 7 - remove loose concrete and patch repair the plinths, install new support structure to ground and replace corroded security bars to the slotted opening, as required.</li> <li>Level 4, Room 1 - remove loose concrete and patch repair the doorway leading to room 2.</li> <li>Level 4, Room 3 - Install new support structure to the ground, remove loose concrete and monitor, replace the corroded security bars to the slotted opening, as require.</li> <li>Level 4, Room 10 - Remove loose concrete and patch repair the roof soffit and walls, replace column base connection to structural steel framing in the room and monitor, remove corroded frame of the roof access gate and apply new protective coating to the gate.</li> </ul> <p><b>External</b></p>		

WORK CATEGORY	WORK DESCRIPTION	Sign-off by Heritage Architect	Sign-off by Council's Heritage Advisor
	<ul style="list-style-type: none"> <li>Rust stabilisation such as Penetrol® should be coated on existing grills to prevent further decay</li> <li>Patch exposed rebar with concrete using masonry sealer with a similar colour and texture to the existing concrete. Masonry sealer should be compatible to withstand a chlorine rich environment.</li> <li>Remove loose concrete and render and either patch repair or inject cracks as required.</li> <li>Attend to external drainage issues and repair the existing drainage system in order to disperse water away from the edge of the building.</li> <li>Remove trees and roots at the base of the northern external wall.</li> </ul>		
	<p><b>GUN EMPLACEMENT AND SURROUNDING ABOVE GROUND</b></p> <ul style="list-style-type: none"> <li>Rust stabilisation such as Penetrol® should be coated on exposed metal to prevent further decay;</li> <li>Monitor vertical cracks at join with ramp walls and spalling concrete to entry ramp, brace or strengthen prior as required;</li> <li>Remove loose concrete and patch repair as required.</li> </ul> <p><b>BELOW GROUND</b></p> <ul style="list-style-type: none"> <li>Remove some graffiti as required, however, some areas should be retained for interpretation purposes. Selection of graffiti retention should be made in consultation with the Heritage Architect. Prior to commencement of removal works, an appropriate removal methodology is to be established. A sample removal of an area approximately 300 x 300mm is to be undertaken and assessed. After completion of removal provide a sample (approx. 1 x 1m) of anti-graffiti resistant coating 9KEIM PSS 20 surface protection coating is recommended).</li> <li>Casement - remove partially collapsed central structural beam and store, remove loose render and improve drainage above roof. Rectify falling damp issues.</li> <li>Remove debris which is considered a trip hazard and improve the drainage above and around the tunnels.</li> <li>Remove loose and drummy render to roof soffit, patch repair to match. Monitor</li> </ul>		

WORK CATEGORY	WORK DESCRIPTION	Sign-off by Heritage Architect	Sign-off by Council's Heritage Advisor
	<p>beams for deterioration and replace before failure;</p> <ul style="list-style-type: none"> <li>Monitor skylight/ vent hatch for deterioration.</li> <li>Cartridge Store passage - apply protective coating to corroded door frame, patch repair roof soffit, monitor corroded lintel beams and spalling brickwork and replace as required.</li> <li>Shell Store Passage - remove loose and drummy render, monitor beams for deterioration and replace as required.</li> <li>Shell Store - monitor windows, hanging beam and door openings for deterioration and replace as required.</li> <li>Southern DRF Station - remove debris and waste, check and clear drains, remove or strength the hatch and remove rubble to reduce the load on the hatch.</li> <li>Northern DRF Station - remove flaking corrosion and monitor the door frame beam, install a new cover over the hatch to prevent water ingress.</li> <li>Pump Chamber Passage - remove loose and drummy render to the roof soffit, monitor beams and storage rack for deterioration and remove before failure.</li> <li>Gun Pit perimeter passage - as above, monitor roof soffit and hanging beam for deterioration and remove before failure.</li> <li>Gun Pit - as above, monitor the edge beam and perimeter walls for deterioration and remove before failure. Remove loose concrete and patch repair as required.</li> <li>Gun Pit - assess drainage system and clear drain.</li> </ul>		
<b>GENERAL</b>			
	Prepare and repaint all masonry walls (old and new) of The Shepherds Hill Defence Group both internally and externally as nominated by the Heritage Architect. Consult the heritage architect and provide sample paintwork for her inspection prior to continuing the remainder of the painting, if any.		
	<p><b>LANDSCAPING</b></p> <ul style="list-style-type: none"> <li>Reinstate formal garden surrounding cottage</li> <li>Check over, maintain and repaint the fence around the cottage</li> <li>Retain Mature Trees</li> <li>Remove vegetation from existing pathways</li> </ul>		



WORK CATEGORY	WORK DESCRIPTION	Sign-off by Heritage Architect	Sign-off by Council's Heritage Advisor
	<ul style="list-style-type: none"> <li>Replace any eroded sections of soil around the battery observation post</li> <li>Maintain height of vegetation beyond boundary fence to preserve views from site towards the ocean.</li> <li>Reinstate driveway leading towards tunnel entrance.</li> </ul>		
<b>d) Interpretation</b>	In principle The Shepherds Hill Defence Group extant fabric, overall form, internal spaces and layout will be the main interpretation aim and material. Therefore, ensure no significant fabric is damaged during any future works.		
	Implement conservation policies recommended in the CMP prepared by City Plan Heritage dated June 2016.		
<b>e) Preservation of significant elements</b>	Retain and preserve all original fabric sound structural elements of the Shepherds Hill Defence Group.		
<b>f) Adaptation</b>	Establish the garden and public areas in accordance with a Landscape Plan and to Council's requirements.		
	BCA upgrade as required and agreed by the Heritage Architect.		

## 12.3 Appendix C - Long Term Maintenance Plan - Structures

The cyclical maintenance schedule refers to regular ongoing maintenance works to fabric that should be implemented by the Newcastle City Council as part of the process of on-going management of the retained significant buildings of the Shepherds Hill Defence Group Military Installations. Performed work and any faults discovered or repairs made, should be recorded and kept separately alongside a copy of this maintenance schedule.

### Cyclical Maintenance Schedule - Shepherds Hill Defence Group Military Installations

#### URGENT MAINTENANCE

- Blocked or broken stormwater and sewerage lines that require repair or cleaning.
- Removal of loose and drummy render and concrete wherever at risk of falling
- Replace roof of Cottage
- Reinstate picture rails and dado rails in Cottage
- Make above ground DRF Station structurally sound
- Stabilisation of soil levels around the Battery Observation Post

#### GENERAL

- Avoid removal of original fabric as identified in the CMP.
- Avoid combining dissimilar materials that will react with each other.
- Retain unobstructed views towards ocean
- Monitor and inspect all site elements before, during and after storm events

Ref No	Element	6 months	Every year	Every 2 years	Every 5 years	Every 10 years	Every 20 years
<b>COTTAGE</b>							
1	WALLS: Weatherboard	?		Inspect condition	Inspect for loose, broken or missing weatherboards, patch repair as necessary matching the existing fabric. Inspect for rising damp and termite damage.		
						Repaint if necessary in accordance to conservation specialist recommendations	
2	WINDOWS: Timber			Inspect for loose or damaged mouldings, architraves, fittings, decayed stiles at sill level, sashes,		Major repairs to external windows: Reset frames, check flashing and	

Ref No	Element	6 months	Every year	Every 2 years	Every 5 years	Every 10 years	Every 20 years
			Inspect for broken or cracked glass or putty	sash joints, decayed or broken sash cords and slipped and loose flashing	patch repair defective elements as necessary.		
					Inspect for paint deterioration and weathering. Suitably prepare and paint.		
3	DOORS: Timber		Inspect for any damage. Ensure operate smoothly	Inspect for loose, decayed or damaged jambs, thresholds, fittings and ensure operate smoothly.	Inspect for paint deterioration and weathering. Suitably prepare and paint.		
						Major repairs to external doors: reset frames, check flashing and patch repair defective elements as necessary	
4	ROOF		Monitor condition and inspect for slipped broken flashing or roof sheeting, repair as required				Replace as necessary
	DRAINAGE: Gutters, Eaves, Capping, Flashing & Downpipes		Inspect gutters for rubbish and debris. Inspect box gutter linings for corrosion and defective joints. Ensure stormwater drains are not blocked. Inspect for loose or slipped external flashing and broken mortar bedding. Inspect for vegetation growth at parapet remove as required.			Inspect gutters for deformation, bent or defects.	
				Inspect gutter and downpipe joints for cracks, loose or missing brackets Growth, moss or stains surrounding downpipes can indicate blockages. Look for downpipes that are squashed or damaged and restrict water flow.			

Ref No	Element	6 months	Every year	Every 2 years	Every 5 years	Every 10 years	Every 20 years
				Check if downpipes are connected to the stormwater system and, if so, whether joints are sound. Check that stormwater drains are not blocked			
5	BARGE BOARD & ROUNDELS						
6	VERANDAH & TIMBER POSTS						
<b>INTERNAL</b>							
1	WALLS: Rendered and/or painted			Inspect for structural cracks, and cracked, damaged and drummy render, and flaking paint. Patch repair and repaint where necessary matching the existing. Inspect for water penetration and paint deterioration. Inspect wall tiles in kitchen and bathrooms for cracks, damage or watertightness.		Inspect for any signs of structural movements, if necessary have a structural engineer to inspect. Repair and repaint as required	
2	WINDOWS			Inspect for loose or damaged mouldings, architraves, and decayed stiles at sill level, sashes, decayed and broken sash cords, sash joints, and slipped and loose flashing. Check internal faces around windows for stains that can indicate failed flashing.			
					Inspect window sills, frames and sashes for paint deterioration and weathering		
3	DOORS			Inspect for loose jambs, damage around locks, firm joints, or damaged fabric.			
					Inspect for paint deterioration		



Ref No	Element	6 months	Every year	Every 2 years	Every 5 years	Every 10 years	Every 20 years
4	CEILINGS				Inspect for water penetration, stains and paint deterioration, and check for splits between ceiling boards and the walls.		
5	FLOORS		Monitor condition		Repair and repolish as required		
SERVICES AND FITTINGS							
1	FIRE SERVICES	Inspect smoke detector controls according to services manual and authority regulations.					
2	HYRAULIC	Inspect hot water system according to services manual and authority regulations. Inspect taps for drips, ease of operation and secured to walls or supports.					
3	ELECTRICAL	Inspect electricity services for damaged and loose fittings according to services manual and authority regulations. Inspect power supply according to services manual and authority regulations.					
4	STORMWATER / DRAINAGE	Inspect stormwater system for blockage and damage. Inspect sewerage system for damaged grates and blockage.					
BATTERY OBSERVATION POST							
1	WALLS: Reinforced concrete		Inspect for any damage	Remove loose concrete. Inject cracks. Patch Repair. Monitor condition.		Inspect support structure surrounding base of observation post for erosion.	
				Remove vegetation including tree roots if possible through poisoning and allow to shrivel (depending on how large roots are)			

Ref No	Element	6 months	Every year	Every 2 years	Every 5 years	Every 10 years	Every 20 years
2	GRILLS		Monitor for deterioration and remove/replace before failure.				
3	DOORS			Inspect & Monitor for corrosion, loose jambs, damage around locks, firm joints, or damaged fabric			
<b>INTERNAL</b>							
1	WALLS		Inspect for any damage	Remove loose concrete. Inject cracks. Patch Repair. Monitor condition.			
2	FLOORS		Inspect for damage. Ensure stormwater drains are not blocked				
3	FITTINGS		Inspect for damage, replace and repair if necessary				
<b>GUN EMPLACEMENT AND TUNNELS</b>							
1	ENTRY RAMP		Check for spalling and loose concrete		Check capping over retaining walls for stability. Repair and repatch as required.		
				Remove loose render. Check stability of the lintels. Strengthen or replace lintels as required.			

Ref No	Element	6 months	Every year	Every 2 years	Every 5 years	Every 10 years	Every 20 years
2	TUNNELS		Monitor for deterioration. Check for drainage systems for blockages	Check for new graffiti, remove as required (consult with Heritage Specifications above for appropriate methods)	Should any structural movement be observed, seek the advice of a structural engineer for rectification		
3	GUN PIT		Remove debris and rubbish. Monitor for deterioration		Should any structural movement be observed, seek the advice of a structural engineer for rectification.		
4	DRF STATIONS		Remove debris and rubbish. Monitor for deterioration		Should any structural movement be observed, seek the advice of a structural engineer for rectification		
<b>GROUND (BUILT STRUCTURES ONLY)</b>							
1	SAFETY BARRIERS		Undertaken maintenance of existing safety barriers				
2	BRICK PAVING						
3	PICKET FENCE						
4	CONCRETE PATHS						

Ref No	Element	6 months	Every year	Every 2 years	Every 5 years	Every 10 years	Every 20 years
5	INTERPRETIVE SIGNAGE						
<b>PARK BATTERY, NO.1 GUN AND BUNKER</b>							
<b>MEMORIAL DRIVE STRUCTURES (DESKTOP ASSESSMENT ONLY)</b>							
1	SEARCHLIGHT ENGINE ROOM						
2	TUNNEL		Monitor for deterioration. Check for drainage systems for blockages	Check for new graffiti, remove as required (consult with Heritage Specifications above for appropriate methods)	Should any structural movement be observed, seek the advice of a structural engineer for rectification		
3	NO. 1 SEARCHLIGHT						



## 12.4 Appendix D - Landscape Maintenance Schedule

The following Landscape Maintenance Schedule has been prepared by landscape specialist Chris Betteridge of Musescape.

The Table below sets out the appropriate maintenance and conservation measures applicable to hard and soft landscape elements and built structures in the Shepherds Hill Defence Group Military Installations. Some of these measures may not be applicable at the present time but will apply when the property has been conserved for an appropriate adaptive reuse.

### 12.4.1 Hard and Soft Landscape Elements

DUTIES	Daily	Weekly	Monthly	Quarter (Autumn Winter Spring Summer)	Annual	As Required
Pick up litter & debris from paths, lawn areas, garden beds	X					
Sweep entrances & paths	X					
Sweep parking areas & driveway	X					X
Remove any graffiti from walls, signs, paths, furniture						As soon as practicable after it is noticed
Inspect paving and steps for wear and trip hazards			X			
Inspect paving and steps for biological growth and treat to reduce slip hazards						X (e.g. after prolonged wet periods)
Inspect garden edging and repair as necessary			X			
Inspect areas around garden seating for erosion and ponding						X (e.g. after prolonged wet periods)
Fence off eroded areas and make good turf in accordance with Specifications						X
Check any garden furniture for	X					

cleanliness, soundness						
Rake lawns and sweep paths and compost leaves for use on garden				Phoenix canariensis can drop heavy fronds with sharp spines		X
Clean stormwater drain gratings		X				X
Inspect gutters & downpipes and clean as necessary		X				
Replace burnt out light bulbs in external lighting with approved low energy bulbs or specialty types as required						X
Mow and water lawns, increasing frequency of mowing if necessary, depending on growth of lawn (in season)		X		Gradually increase frequency of watering and mowing to full summer program during October.  Taper off mowing and watering during March and fertilise if necessary.		X
Trim around building, garden structures & paths, avoiding 'whipper snipper' damage to plants, timber and masonry		X				X
Trim along fence lines avoiding 'whipper snipper' damage to plants, timber picket fence and masonry		X				X
Control weeds using manual methods near significant plants and application of approved herbicide						X

elsewhere, in accordance with Specifications						
Remove noxious and environmental weeds in accordance with Newcastle City Council requirements and relevant advice from NSW Department of Primary Industries & herbicide manufacturers.						X
Inspect trees and shrubs for signs of nutrient deficiencies, disease, decay, dead wood and treat as appropriate			X			
Inspect trees and shrubs for physical damage after storms, vehicle damage and treat as appropriate			X			X
Inspect trees and shrubs for fungal attack e.g. fruiting bodies around base or bracket fungi on trunk				Autumn		X
Inspect trees and shrubs for possible root destabilisation e.g. after prolonged heavy rain, severe wind storms and treat as necessary						X
Trim shrubbery in accordance with requirements for particular species and current best practice to improve shape, flowering or fruiting.						X
Prune any roses in accordance with requirements for particular variety				July, or June if onset of dormancy is earlier due to cold weather		

Prune herbaceous plants in accordance with species requirements, to improve shape, flowering or fruiting.						X
Prune trees in accordance with Australian standards (e.g. AS 4373-2007 Formative Pruning) and current best practice in arboriculture as recommended by relevant industry representative groups.				Varies according to species		X (e.g. to lift crowns as necessary)
Apply mulch to garden beds and around trees and shrubs, avoiding build-up of mulch around stems					X	
Carry out tree husbandry operations such as staking, protection and replacement						X e.g. when planting new trees, shrubs
Remove rain-washed silt from paths and other hard surfaces						X
Top dress lawns as required to level uneven patches or fill in bald or damaged patches, using only top quality sandy loam or an approved soil mix. Cover affected areas by no more than 1 cm, using a rake to spread the mix, then water in well.				Spring		X
Feed lawns with an approved lawn fertiliser				Spring		
Aerate worn areas if necessary and reseed or returf if necessary				Sept.		



Spray lawns with approved broad-leaf weed killer during cooler months to avoid excessive damage to turf				At start of active growth season and winter lawn weeds during late October if necessary		
Spray lawns with approved grub killer and fungicide during warmer months						X
Repaint garden furniture, avoiding paint spillage or overspray				Summer		X
Service and maintain gardening equipment.				Winter		
Arrange maintenance check and service as necessary of reticulation equipment during late autumn/winter.				Late Autumn / Winter		
Check operation of reticulation equipment				prior to warmer months.		
Respond immediately to any public safety issues						X



## 12.5 Appendix E - Inventory Sheets

## Place Details

[Send Feedback](#)

### Shepherds Hill Cottage and Surrounds, 41 The Terrace, Newcastle, NSW, Australia

Photographs	None
List	Register of the National Estate (Non-statutory archive)
Class	Historic
Legal Status	<a href="#">Registered</a> (21/10/1980)
Place ID	18950
Place File No	1/09/063/0044

#### Nominator's Statement of Significance

The cottage is significant for its associations with the continuous occupation of the site by the armed services for some seventy years. The 8 inch Gun Emplacement has significance as an example of Victorian fortifications and for its role in the defence of Newcastle during the Crimean War. The site is significant as the only unmodified 8 inch Breach Loading Hydro Pneumatic Disappearing Gun emplacement in New South Wales.

Official Values Not Available

#### Description

The Shepherds Hill Cottage and military ruins enjoy a commanding position on the coastal cliff top at the southern end of Newcastle's King Edward Park. Military occupation dates from the 1890s with the construction of an 8 inch disappearing gun emplacement with underground rooms and a weatherboard cottage. During World War Two the Observation Post was constructed and a large number of structures erected to house troops stationed on the site. The Fortress Observation Post was the central command position for Newcastle's defences, part of a system which included batteries in King Edward's Park, Fort Scratchley, Fort Wallis at Stockton and at Tomaree at Port Stephens. The Army used the cottage as a mess during World War II and continued to use the cottage as quarters into the 1960s. The land later passed to the State Government's Department of Lands which appointed the Newcastle City Council as Trustee.

History Not Available

Condition and Integrity Not Available

#### Location

41 The Terrace, comprising Shepherds Cottage and associated military installations at the southern end of King Edward Park adjacent to the intersection of the Terrace and York Drive, Newcastle.

#### Bibliography

General Conditions and Specification : Roofing Works : Shepherds Hill Cottage, Newcastle, 1989. Newcastle City Council.

Shepherds Hill, Newcastle, 1987. Newcastle City Council.

Shepherds Hill Cottage and Surrounds, Conservation Study, 1984. Gardner Browne for the Newcastle City Council an NEGP funded project.

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# Shepherds Hill Defence Group Military Installations

## Item details

Name of item:	Shepherds Hill Defence Group Military Installations
Other name/s:	Shepherd's Hill, Group includes Residence, Observation Post and Gun Placement
Type of item:	Complex / Group
Group/ Collection:	Defence
Category:	Fortification
Location:	Lat: -32.9357266783 Long: 151.7786721860
Primary address:	41 The Terrace, Newcastle, NSW 2300
Local govt. area:	Newcastle
Local Aboriginal Land Council:	Awabakal

## Property description

Lot/ Volume Code	Lot/ Volume Number	Section Number	Plan/ Folio Code	Plan/ Folio Number
PART LOT	42		DP	152846
PART LOT	78		DP	154075
PART LOT	0		SP	4203
LOT	3116		DP	755247

This item comprises 5 elements, as follows:

## Boundary:

41 The Terrace: Southern and south-eastern boundaries are the cliff, the western boundary is the wire fence just east of The Terrace. The northern boundary is just beyond the intersection of York Drive and the Terrace and passes approximately 5 meters along parallel to the access road to the site. It follows the 67 meter contour around to the edge of the cliff. See image no.7.

65 Nesca Parade: One metre from the footings of the Searchlight Engine Room. The units constructed on top of the Searchlight Engine Room are excluded from the listing

Tunnel: The boundary is the interior fabric of the tunnel connecting the Searchlight engine room with the Searchlight Bunker on the cliff-face.

Searchlight Bunker: Five meters from the footings of the bunker.

Battery No. 1 gun emplacement: Five meters from the footings.

## All addresses

Street Address	Suburb/ town	LGA	Parish	County	Type
Near Cliff Street	The Hill	Newcastle			
41 The Terrace	Newcastle	Newcastle			Primary Address
65 Nesca Parade	The Hill	Newcastle			Alternate Address
12/101 Memorial Drive	The Hill	Newcastle			Alternate Address

## Owner/s

Organisation Name	Owner Category	Date Ownership Updated
Land and Property Management Authority (LPMA)	State Government	
Newcastle City Council	Local Government	



## Statement of significance:

The Shepherds Hill Group is historically significant at a State and possibly a national level, because its history forms an important part of the story of Australian coastal defences, spanning a six-decade period from the late 19th, to the mid 20th century. During this time, the site was a key defence post. Its history provides an insight into the way that NSW defence policy reacted to changing technologies, threats and types of warfare. During WWII, the fortifications at Shepherds Hill played a co-ordinating role in the defence of Newcastle. Defence of Newcastle during this time was of high significance to the state, because Newcastle had become an area of great strategic and industrial importance in NSW, with its steelworks and operational port. The majority of the state's shells were produced in Newcastle and it was also the site of the NSW Dockyards. In order to protect these productions, a new system of defence was undertaken, which included the strengthening of Fort Wallis and the construction of two new close defence batteries - Shepherd's Hill and Fort Scratchley. The defence system proved its worth when in June 1942, Newcastle was fired on by cruising Japanese submarines, and Newcastle gained the distinction of being the only place in Australia that returned enemy fire with the launching of guns from Fort Scratchley. The fact that the Shepherds Hill fortification was simultaneously manned by members of the Navy, Army and the Airforce for a variety of functions is rare, and possibly unique in Australia.

Date significance updated: 21 Jul 10

Note: There are incomplete details for a number of items listed in NSW. The Heritage Division intends to develop or upgrade statements of significance and other information for these items as resources become available.

## Description

Construction years: 1890-1940

Physical description: The Shepherds Hill Group comprises:

- a cottage;
- remains of a disappearing 8-inch gun;
- an observation post complex, and
- the remains of the searchlight No 1 position with its attached tunnel and engine room (on the cliff below Strzelecki lookout).

The cottage and observation post are located on a cliff at the southern end of King Edward Park. The No 1 (southern) searchlight is located on the face of the cliff below Strzelecki lookout with a tunnel running underneath Memorial Drive to the engine room below units at 65 Nesca Pde Newcastle.

Shepherds Hill is one of the best lookout points in Newcastle so it is hardly surprising that a fortifications and observation post of the strategic importance of the Shepherds Hill group is located here. The site is 70m above sea level and extends from the street called The Terrace, approximately 110m eastwards to the top of the cliff.

Cottage:

The Cottage is an Edwardian period weatherboard residence, with a corrugated metal roof and feature timber finials. It is in the care and control of Newcastle City Council and was restored sympathetically in 1997. A "caretaking" role is provided by the Royal Volunteer Coastal Patrol who carry out their operations from the building and hold a 20 year lease, due to expire in around 2017. The residence stands in contrasts to the brutalist concrete forms of the observation post structures. The cottage contains a living room, a dining room, three bedrooms, two sunrooms, a kitchen, a bathroom, a laundry and a porch. The garage, store and toilet are detached from the Cottage. The sunrooms and the bathroom are additions, which is evident from the more contemporary style of windows. The garage is also an addition.

The Observation Post:

The Observation Post is made of reinforced concrete and has 5 levels with 8 observation rooms. It is approximately 8 meters tall and is an interesting structure due to its many interlocking levels. It is visible from many vantage points within the park and from the south and north along the coastline.

## Gun Emplacement:

The Gun Emplacement, which is located behind the Observation Post has a gun pit and two magazines behind it. One of these is for the storage of shells and the other for the storage of propellant charges. These are linked to the gun-pit by underground cables. There is sandstone detailing at the entry area and casemate. The entry is through the casemate via a vehicular ramp. It also has depression range finding stations which are symmetrically placed along a central corridor. There is another depression range finding station which is aboveground and is to the north of the main building.

## No. 1 Search light site:

The No 1 searchlight is located on a cliff below Strzelecki lookout. It is connected to an engine room via a brick and concrete lined tunnel. The engine room is of mass concrete construction and is visually similar to the construction of the observation post buildings. It is highly intact and the original steel entry doors survive, although a 2 storey residential flat

building has been built on the roof of the engine room. The tunnel is about 100 metres in length and originally carried the cables for the operation of the searchlight from the engine room.

The No 2 searchlight was positioned to the left of the stepped pathway leading down to the lower end of Garside Gardens. Its engine house was at the foot of the slope immediately behind the bowling club. It has not been found as part of this study.

Physical condition  
and/ or  
Archaeological  
potential:

Grounds at Shepherds Hill are in reasonable condition in the central area. However towards the edges of the hill, bitou bush proliferates and it has an unkempt appearance.

## Cottage:

is kept reasonably well maintained. The Cottage is in sound condition following its restoration by Newcastle City Council in 1997.

Good - obvious deterioration (Newcastle, Coastal Plan of Management, 2015).

## Laundry Shed:

very good condition, minor deterioration

(Newcastle, Coastal Plan of Management, 2015).

## Observation Post &amp; disappearing 8" Gun:

The concrete structures including the remains of the observation post and disappearing 8-inch gun are in poor condition and require considerable engineering and heritage conservation treatments to ensure the items are preserved. To various depths, the gun emplacement has been filled with sand and rubble. There is a tunnel entrance to the emplacement as well as other underground tunnels and chambers. (Browne, p.20). Despite the overall poor conditions, these underground tunnels are still visible as are the cables.

## Watch Tower:

The watch tower is in a poor condition, and its lower level is filled with rubbish and water. Salt air has corroded the embedded steel reinforcing which has led to large areas of spalling concrete. This corrosion has also occurred on areas of exposed steel.

## Searchlight No 1 tunnel and engine house:

The Searchlight No 1 tunnel and engine house are in good condition, however the engine house is full of rubbish. The steel doors are heavily corroded making access difficult. The strata unit manager has instructed that the doors be bolted and the windows are now clad in heavy ply to prevent unlawful entry.

Date condition updated: 17 Nov 09

Modifications and dates:	The sunroom, bathroom and garage are all additions to the cottage. The cottage was used to house Newcastle's artist in residence and is now used to house the Royal Volunteer Coastal Safety branch of Newcastle who have a 20 year lease of the building. The lease is due to expire around 2018.
Further information:	The No 1 Searchlight engine room and tunnel are located at the rear of 65 Nesca Pde The Hill, and forms the base of the two-storey strata units known as 65 Nesca Pde.
Current use:	Cottage is used by the Royal Volunteer Coastal Patrol
Former use:	Military gun battery emplacement

## History

**Historical notes:** The name 'Shepherd's Hill' is derived from the name 'Sheep Pasture Hills' which was given to the place by Lieutenant Colonel Paterson when he first visited the site in 1801, because the steep grassy slopes reminded him of England. The area was mined for coal during the 1840s, with a copper smelting works operating on the site (Bathers Way: Surveillance, interpretive sign at Shepherds Hill). Huts were constructed for miners and their families.

Military occupation of the site began in the 1890s, with the construction of an 8-inch disappearing gun emplacement with underground rooms. This was developed in response the threat of an attack from Russia. A cottage was also built, and this was first inhabited by Master Gunner Wollitt, when he was master to the gunner for the Shepherds Hill and Fort Scratchley emplacement (G. Browne, 1984, p.11). There were two batteries in operation at Shepherds Hill, one to the south of the site near Cliff Street and one to the north, above York Drive. The second battery has since been demolished. These two batteries were established as part of an integrated project to advance the defences of the city of Newcastle. This project included the strengthening of fortifications at Fort Scratchley.

In 1879, Colonel Scratchley proposed a self-contained and self-defensible fort with the purpose of protecting the settlement as well as the Newcastle coalfields from foreign attack.

In 1896 a gun was constructed at Shepherds Hill one mile south of Scratchley in order to strengthen Newcastle's defence system. The disappearing gun, also known as a 'jumper' or 'hydro-pneumatic gun' had been developed in 1883 and seemed to offer cheap, effective protection with the benefit of being discreet. Major General Scratchley ordered many of these new guns for the Australian colonies, despite the reservations that the War Office had about the guns. The gun was supported above the gun pit by a carriage and after firing, the gun would contract down below the parapet to be reloaded. The energy of this contraction was absorbed in compressing hydraulic rams which then returned the gun to firing position. However, this weapon had two significant drawbacks. Firstly, it only offered limited elevation and secondly,

the time taken to reload the gun was a hindrance. The new warships that had been developed demanded a faster rate of fire which could only be achieved by a gun which stayed in position and could be simultaneously fired and loaded (P. Oppenheim, 2005, p.139-140). The British Government discontinued this system of defence in Australian colonies after a few years. In 1906, the Shepherds Hill gun was deemed unsafe, and this, in combination with the fact that Fort Scratchley did not have a clear view of Stockton Bight led to the establishment of Fort Wallis at Stockton (G. Browne, 1984, p. 12).

By 1939, Newcastle was one of the primary sources of munitions production for NSW and during WWII Newcastle became a significant industrial area (J.R. Graham, 1969, p.69). The BHP company, which operated in Newcastle, had been preparing for the outbreak of war since Essington Lewis, head of BHP had made an overseas trip in 1934. Munitions productions began at the steelworks, and metallurgists were forced to adapt to new technologies that were involved in manufacturing alloys that had not previously been produced in Australia. After acquiring the steelworks at Port Kembla, BHP became the only integrated iron and steel producer in Australia (NSW Heritage Inventory, Administration Building, SHI number 2173907). Thus, the defence of Newcastle had an importance beyond the immediate area and was significant to Australia as a whole. The majority of the state's shells were produced in Newcastle and it was also the site of the NSW Dockyards. In order to protect these productions, a new system of defence was undertaken, which included the strengthening of Fort Wallis and the construction of two new close defence batteries Shepherd's Hill and Fort Scratchley. Both sites were armed with 6 inch MK VII ex naval guns and controlled from an observation post on the site of the old 8 inch battery on Shepherd's Hill. All defences in area were controlled by Post on Shepherds Hill (J. R. Graham, 1969, p.64).

As part of the strengthening of the defence system of Newcastle, various new projects were undertaken at Shepherds Hill during WWII, such as accommodation for troops stationed on the site and the erection of the Nos 1 and 2 Searchlights and engine rooms, and the driving of a 100 metre long tunnel to provide a housing for the No 1 Searchlight 60 metres above sea level. The cottage was used as an Officers Mess for troops stationed at Shepherds Hill.

The most important construction was that of an Observation Post. The natural height of the hill as well as the ruggedness of the hills made Shepherds Hill a good location for this construction. The Post was 106m above sea level and was used as a range finder for Fort Wallis, which had an observation post only 22m above sea level. This was unusual because it meant that the post was 6000 yards away from the guns that it controlled, but the extra height of Shepherds Hill was necessary in order to have a clear view of targets. (G. Browne, 1984, p.14) New technologies in instant communication via electric telegraph made this possible.

During WWII the Observation Post was simultaneously run by all three services; the Royal Australian Navy, the Army and the Royal Australian Air Force. The Port War Signal Station was controlled by the Navy, and was used to collect information on ship movements. The Early warning radar was manned by the Air Force. Those functions manned by the Navy were the Fire Commander's Post, Officer Commanding Searchlights, a Fortress Observation Post, a Battery Observation Post for Fort Wallace as well as one for Park Battery and a searchlight direction station for Park Battery.

The development of the post at Shepherds Hill during WW II, reflects Australia's growing fear of invasion. One of the reasons for this concern was the realisation that Australia could not rely as heavily on Britain for protection as it had in the past. There seemed a real threat of a Japanese invasion, especially since the League of Nations mandate, which allowed Japan to administer various Islands in the Pacific. Thus, defence of the coast was a priority. Fort Scratchley, which had close ties to Shepherds Hill, responded to an attack on the city by a Japanese submarine in June 1942. This is the only place on the mainland of Australia that is known to have returned fire. (NewcastleCity Council, 2007, section 1.6.3.). The batteries at Shepherds Hill formed an integrated system with the batteries at Fort Scratchley, Fort Wallace at Stockton and at Tomaree on Port Stephens. Shepherds Hill had the role of coordinating the system.

In 1946, a policy of classifying the defences of Australia in three different categories was adopted. The defences of Newcastle were classified in category B which meant that defences were to be kept fully operational and stored in such a way that they could be quickly installed in the appropriate location during wartime. The only other city in NSW that was classified as 'B' was Sydney. (P. Oppenheim, 2005, p. 291). In 1956, following orders from the British Government, Coast Artillery was disbanded. In the 1950s to early 1960s, the cottage at Shepherds Hill was inhabited by Jack Green, the Officer Commanding the School Cadets. It was used by the Army until the 1960s. Following this, it housed Newcastle's 'Artist in Residence', as part of a program aimed towards promoting young local artists. The land is now held by the State Government's Department of Lands, with the Newcastle City Council appointed as Trustee. The cottage has been renovated and is now used by the Newcastle branch of the Volunteer Coastal Patrol.

Along with Fort Scratchley and South Head in Sydney, Shepherds Hill is one of the few sites in NSW where fortifications are still in tact. As with Shepherds Hill, South Head is a natural defence point of the coast. South Head formed part of an integrated system of defence of the Sydney coast line with other sites of strategic importance being Middle Head and North Head. The remaining fortifications at South Head are illustrative of an open system of defence. Open batteries were cheaper to construct than closed batteries or casemates and were also effective against new warfare technologies such as explosive shells (NSW National Parks and Wildlife Service, 2007, p. 164). This system of defence was implemented at South Head during the 1870s. Although South Head, North Head and Middle did have disappearing guns, these were replaced in the 1890s by Quick Firing Guns, which were in open concrete pits (NSW National Parks and Wildlife Service, 2007, p.167). In contrast, the system of defence at Shepherds Hill is illustrative of a closed system of defence, with the disappearing gun and underground passages providing physical evidence of this system. Thus, if South Head and Shepherds Hill are looked at together, an archaeology of changing military technologies becomes apparent.

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## Historic themes



Australian theme (abbrev)	New South Wales theme	Local theme
3. Economy- Developing local, regional and national economies	Communication-Activities relating to the creation and conveyance of information	Utilities-
3. Economy- Developing local, regional and national economies	Environment - cultural landscape-Activities associated with the interactions between humans, human societies and the shaping of their physical surroundings	Developing local, regional and national economies- National Theme 3
3. Economy- Developing local, regional and national economies	Environment - cultural landscape-Activities associated with the interactions between humans, human societies and the shaping of their physical surroundings	Landscapes of military activities-
3. Economy- Developing local, regional and national economies	Industry-Activities associated with the manufacture, production and distribution of goods	Manufacturing defence materials-
3. Economy- Developing local, regional and national economies	Science-Activities associated with systematic observations, experiments and processes for the explanation of observable phenomena	(none)-
3. Economy- Developing local, regional and national economies	Technology-Activities and processes associated with the knowledge or use of mechanical arts and applied sciences	(none)-
3. Economy- Developing local, regional and national economies	Technology-Activities and processes associated with the knowledge or use of mechanical arts and applied sciences	Technologies for adapting wartime structures-
4. Settlement- Building settlements, towns and cities	Towns, suburbs and villages-Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	19th Century Infrastructure-
7. Governing- Governing	Defence-Activities associated with defending places from hostile takeover and occupation	Defending the nation.-
7. Governing- Governing	Defence-Activities associated with defending places from hostile takeover and occupation	State links in a national network-
7. Governing- Governing	Defence-Activities associated with defending places from hostile takeover and occupation	Observing and looking out for enemy movements-
7. Governing- Governing	Defence-Activities associated with defending places from hostile takeover and occupation	Sending and receiving messages-
7. Governing- Governing	Defence-Activities associated with defending places from hostile takeover and occupation	(none)-
7. Governing- Governing	Defence-Activities associated with defending places from hostile takeover and occupation	Making and supplying ordnance-

## Assessment of significance

SHR Criteria a) [Historical significance]	<p>The Shepherds Hill Group is historically significant at a state level because of its important role in the coastal defence of NSW. It was an important defence and Observation post for the state during the time of the Crimean War. Shepherds Hill Group formed an integral part of Newcastle's integrated defence system, and changes made to this system since the 1880s reflect the way that NSW defence policy responded to new threats as well as technological developments. It was also crucial that Newcastle be defended during periods of war, due to the fact Newcastle was an important industrial centre, that supplied munitions from the steelworks and beef (via the port) to the military during WW2. The Newcastle Steelworks formed an important part of the economy of NSW and were a significant part of the war effort. The surviving complex tells an important story associated with the course of Australian national history and is strongly evocative of the military defence of strategically important Australian places.</p> <p>The site has a significant association with all three of the armed forces. It is also associated with Fort Scratchley, another highly significant defence site and the only place on the mainland of Australia that is known to have returned fire. This occurred when the city was under attack by a Japanese submarine in June 1942 (Newcastle City Council, 2007, section 1.6.3).</p>
SHR Criteria b) [Associative significance]	Within the limited research carried out for this review, the site was not found to be significant under this criteria.
SHR Criteria c) [Aesthetic significance]	<p>The site has aesthetic significance due to the impressive views it offers along the Newcastle coastline as a complex of structures and forms and which are highly evocative of war and coastal defense systems. The Gun Emplacement and Observation Post occupy a prominent position on a high vantage point adjacent to King Edward Park, Newcastle's major historic park. The solid and robust concrete forms are visible from within the park and make for a memorable counterpoint to the high Victorian architecture of the street called The Terrace to the immediate west. These physical elements provide the park with a sense of drama and interest. As a destination it is used as a venue for wedding pictures, artistic endeavours and photography of the coastline. The No 1 searchlight engine room and its tunnel at 65 Nesca Pde display a high degree of technical achievement and are in remarkably good condition for their 60 year age. The early 1960s period residential flat building that is built on the roof of the Searchlight engine room is an interesting example of building recycling for other nonrelated uses.</p>
SHR Criteria d) [Social significance]	The Shepherds Hill group may be of social significance to the local veteran community.
SHR Criteria e) [Research potential]	<p>The site is scientifically significant because the 8-inch Breach Loading Hydro Pneumatic Disappearing Gun emplacement in is an example of the developing technology during the latter years of the 19th Century. This has the potential to yield important information about changing military technologies in NSW. The No 1 Searchlight and tunnel retain a high degree of intactness. The structures have the potential to yield information relating to the construction techniques used at the time and the fortification of the coastline.</p>
SHR Criteria f) [Rarity]	<p>The site is rare as it contains the only unmodified 8-inch Disappearing Gun Emplacement in NSW. This gun emplacement provides a rare example of the disappearing guns that were a new and fleeting development in military technology. Although other sites such as South Head had disappearing guns, these were replaced in the 1890s. Shepherds Hill is possibly unique in Australia because during WWII, it was simultaneously manned by the R.A.N, Army and R.A.A.F for a variety of functions. The tunnel system appears to be intact and in good condition and it may be one of only a few such fortifications surviving under a headland in Australia, with the exception of Fort Scratchley. The No 1 Searchlight engine room and its 100 metre long tunnel are rare surviving examples of the fortification of the coastline by the installation of a searchlight, high up on a sea cliff.</p>
SHR Criteria g) [Representativeness]	Shepherds Hill is representative of the integrated coastal defence systems that was essential to the defence of NSW. Such an integrated system is also evident in the coastal defences of Sydney during the 19th and early to mid 20th centuries. Improvements in technologies allowed for both the Newcastle and Sydney coastal defence systems to communicate effectively.
Integrity/ Intactness :	<p>Apart from the Cottage, the items at Shepherds Hill have not been well maintained. The No 1 searchlight engine house and its brick and concrete tunnel are in remarkably good condition, with little evidence of the concrete cancer that is attacking the observation post. Despite this it is still possible to gain an idea of the way that military operations were conducted from Shepherds Hill.</p>
Assessment criteria :	Items are assessed against the  <b>State Heritage Register (SHR) Criteria</b> to determine the level of significance. Refer to the Listings below for the level of statutory protection.

## Recommended management:

### Recommendations

Management Category	Description	Date Updated
Statutory Instrument	Nominate for State Heritage Register (SHR)	17 Mar 16
Statutory Instrument	Nominate for State Heritage Register (SHR)	17 Mar 16
Statutory Instrument	Nominate for State Heritage Register (SHR)	17 Mar 16
Statutory Instrument	Nominate for State Heritage Register (SHR)	17 Mar 16

### Procedures /Exemptions

Section of act	Description	Title	Comments	Action date
57(2)	Exemption to allow work	Standard Exemptions	<p>SCHEDULE OF STANDARD EXEMPTIONS</p> <p>HERITAGE ACT 1977</p> <p>Notice of Order Under Section 57 (2) of the Heritage Act 1977</p> <p>I, the Minister for Planning, pursuant to subsection 57(2) of the Heritage Act 1977, on the recommendation of the Heritage Council of New South Wales, do by this Order:</p> <p>1. revoke the Schedule of Exemptions to subsection 57(1) of the Heritage Act made under subsection 57(2) and published in the Government Gazette on 22 February 2008; and</p> <p>2. grant standard exemptions from subsection 57(1) of the Heritage Act 1977, described in the Schedule attached.</p> <p>FRANK SARTOR</p> <p>Minister for Planning</p> <p>Sydney, 11 July 2008</p> <p>To view the schedule click on the Standard Exemptions for Works Requiring Heritage Council Approval link below.</p>	Sep 5 2008

 **Standard exemptions** for works requiring Heritage Council approval

### Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Heritage Act - State Heritage Register		01806	02 Jul 10	90	3235
Local Environmental Plan			17 Nov 09		
National Trust of Australia register			17 Nov 09		
Register of the National Estate			08 Aug 03		

## Study details

Title	Year	Number	Author	Inspected by	Guidelines used
Newcastle Inner Areas Conservation Planning Study	1984		Suters Busteed + Lester Firth		N o
Draft Newcastle LEP Review of Nominations	2001		Ecotecture Pty Ltd		Y e s
Review of Items of Potential State Significance in the Newcastle City Area	2008		Sue Rosen and Associates Heritage Assessment And History (HAAH)	Julia Kensy, Emma Dortins and Rosemary Kerr	Y e s

## References, internet links & images

Type	Author	Year	Title	Internet Links
Written		2015	Newcastle, Coastal Plan of Management	
Written	John R. Graham	1969	The Coastal Defences of NSW 1901-1969	
Written	Lt-Col. R. S. Mort (ed)	1988	The Story of Shepherds Hill	
Written	Newcastle City Council	2007	Newcastle City Wide Heritage Study - Thematic History	
Written	NSW National Parks and Wildlife Service		South Head - draft conservation management plan	
Written	Peter Oppenheim	2004	The Fragile Forts: The Fixed Defences of Sydney Harbour	

Note: internet links may be to web pages, documents or images.



(Click on thumbnail for full size image and image details)

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## 12.6 Appendix F - AHIMS Search and Aboriginal Due Diligence Assessment, CPH, September 2017



# Aboriginal Due Diligence Assessment Shepherds Hill Defence Group Military Installations SHR # 01806

41 The Terrace, Newcastle and 65 Nesca Parade, The Hill

Submitted to the Council of the City of Newcastle

## Report Revision History

Revision	Date Issued	Prepared by	Verified by
01	26/07/18	<b>Alexandra Ribeny</b> <i>Heritage Consultant / Archaeologist</i>	<b>Carole-Lynne Kerrigan</b> <i>Associate Director - Heritage</i>

*This document is preliminary unless approved by a Director of City Plan Heritage.*

### CERTIFICATION

This report has been authorised by City Plan Heritage, with input from a number of other expert consultants, on behalf of the Client. The accuracy of the information contained herein is to the best of our knowledge not false or misleading. The comments have been based upon information and facts that were correct at the time of writing this report.

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## 1. Introduction

In 2010 the NSW Department of Environment, Climate Change and Water published the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* to guide the minimum requirements for conducting due diligence to determine whether sites or objects of Aboriginal heritage significance may be present on a site where development is proposed. The Due Diligence Code of Practice recommends asking and answering a series of questions to determine whether a site is likely to contain sites or objects of Aboriginal heritage significance (Figure 1).

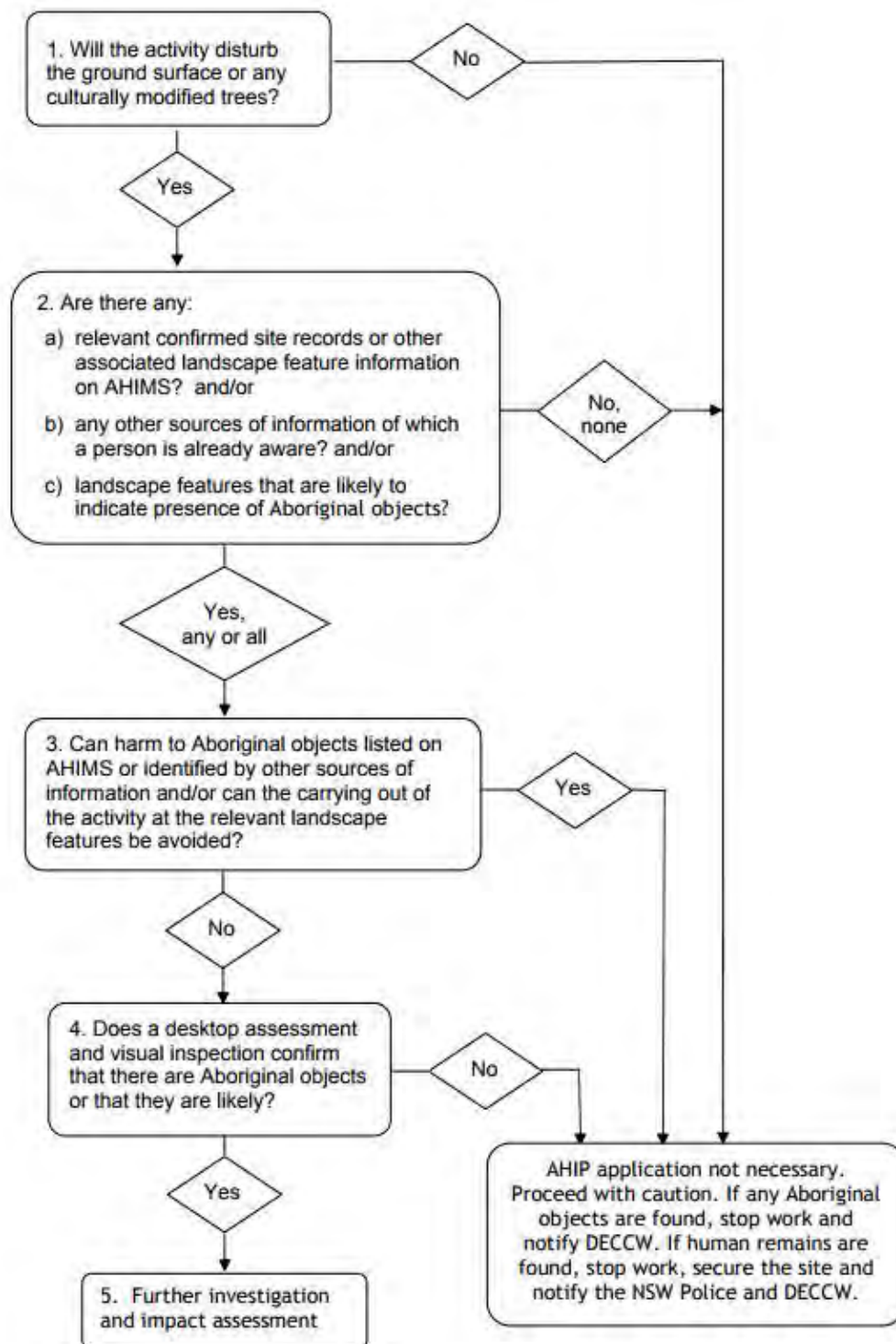


Figure 1: 'Generic Due Diligence Process', Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales. NSW Department of Environment, Climate Change and Water. Accessed on 11 September, 2017. Available from <http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf>

## 2. Due Diligence Assessment

The following sections provides responses to the questions, as outlined in the Due Diligence process (Figure 1).

### **Step 1: Will the activity disturb the ground surface or any culturally modified trees?**

No culturally-modified trees are recorded at the subject site. Any archaeological activities involving excavation (see Section 2) would involve ground disturbance and would therefore need to consider whether these might result in harm to Aboriginal sites or objects. The procedure for assessing whether Aboriginal objects might be present at the site is outlined in Steps 2 and 3.

### **Step 2: Are there any:**

#### **A) relevant confirmed site records or other associated landscape feature information on AHIMS?**

The AHIMS search has not indicated the presence of any recorded Aboriginal sites within a 200-metre buffer of the subject site (see Step 2A).

#### **B) other sources of information of which a person is already aware?**

At the time of European arrival, the Awabakal language group inhabited the Newcastle area. Their subsistence was defined by their proximity to the ocean and was supplemented with terrestrial game and gathered wild plants<sup>1</sup>. In general terms, historical sources suggest that Shepherds Hill would have been the potential location for food processing or procurement activities.

In more specific terms, the report<sup>2</sup> makes reference to an 'Aboriginal tool-making site', which was located at Shepherds Hill in 1916, which contained a collection of partially-worked and shaped flints. Unfortunately, no further information was obtained by the author.

#### **C) landscape features that are likely to indicate presence of Aboriginal objects?**

The Due Diligence Code of Practice identifies five landscape features that indicate the likely existence of Aboriginal objects, namely locations:

- within 200 metres of water;
- within a sand dune system;
- on a ridge top, ridge line or headland;
- within 200 metres below or above a cliff face; and
- within 20 metres of or in a cave, rock shelter or cave mouth.

The subject site is located well within 200 metres of water, as it fronts the Tasman Sea at its eastern extent. It is not located on a headland, but on a long strip of sheer coastline between the Newcastle headland (to its north-east) and the Glenrock State Conservation Area (to its south-west). Historical accounts indicate that this coastline was once lined with sand dunes, which, once cleared of vegetation by European settlers, were swept westwards<sup>3</sup>. The subject site is located on a cliff face, though this terrain does not contain any known caves or rock

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<sup>1</sup> Kass, T. 'Shepherds Hill Defence Group – Site History' (2017). p.6

<sup>2</sup> Ibid p.3

<sup>3</sup> *Newcastle Morning Herald*, 10 April 1916, p 4. In Kass, T. (2017). p.3.



shelters. In summary, the subject site's clifftop location and proximity to water constitute landscape features which are likely to indicate the presence of Aboriginal objects.

A further predictive landscape feature, as outlined in the Code, is the degree of human disturbance. Disturbed land is defined in the Code as land that "has been the subject of a human activity that has changed the land's surface, being changes that remain clear and observable". Construction of the Shepherds Hill Defence structures involved a high degree of ground disturbance, particularly as a large component of the complex is located beneath the ground surface. Aerial photography (Figure \_) indicates where land has been cleared of vegetation at the site. Although the area immediately surrounding the subject site presents a natural appearance, historical research has shown otherwise. The construction of Memorial Drive to its north would have also involved further extensive works. The subject site therefore meets the definition of disturbed land, which is not predictive of the presence of Aboriginal objects. This suggests that if Aboriginal sites once existed in vicinity of the subject site, they were very likely removed or disturbed by human activities.

***Step 2A: Search the AHIMS database and use any other sources of information of which you are already aware.***

A search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken for sites recorded within a 50 metre, 200 metre and 1,000-metre buffer of the subject site (at Lot 3116 DP 755247). The searches for places within a 50 and a 200-metre buffer displayed 0 results, whereas the search within a 1,000-metre buffer yielded 5 results. As these recorded sites were not located proximal to the subject site (between 200 – 1,000 metres), it was determined that an extensive AHIMS search would not be necessary in order to obtain more detailed records.

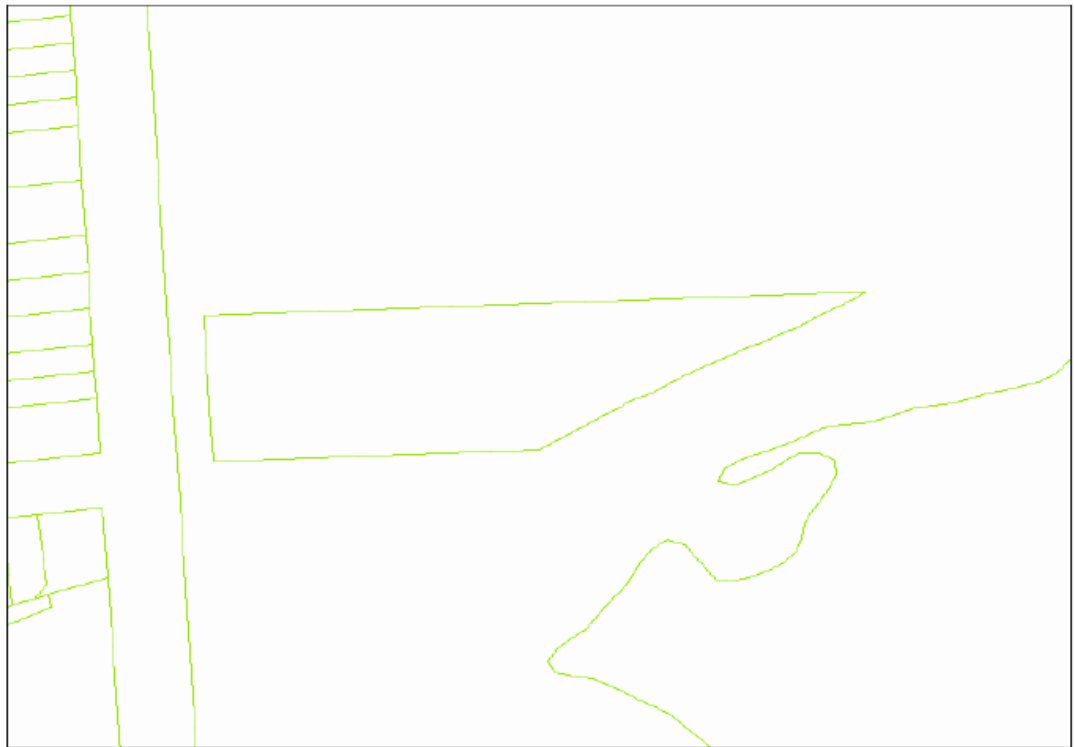


Figure 2: AHIMS search results with a buffer of 50 metres from the subject site (at Lot 3116 DP 755247), which indicates the presence of 0 recorded Aboriginal sites (Source: AHIMS Web Services, conducted by Brittany Freeland on 3 May, 2016)

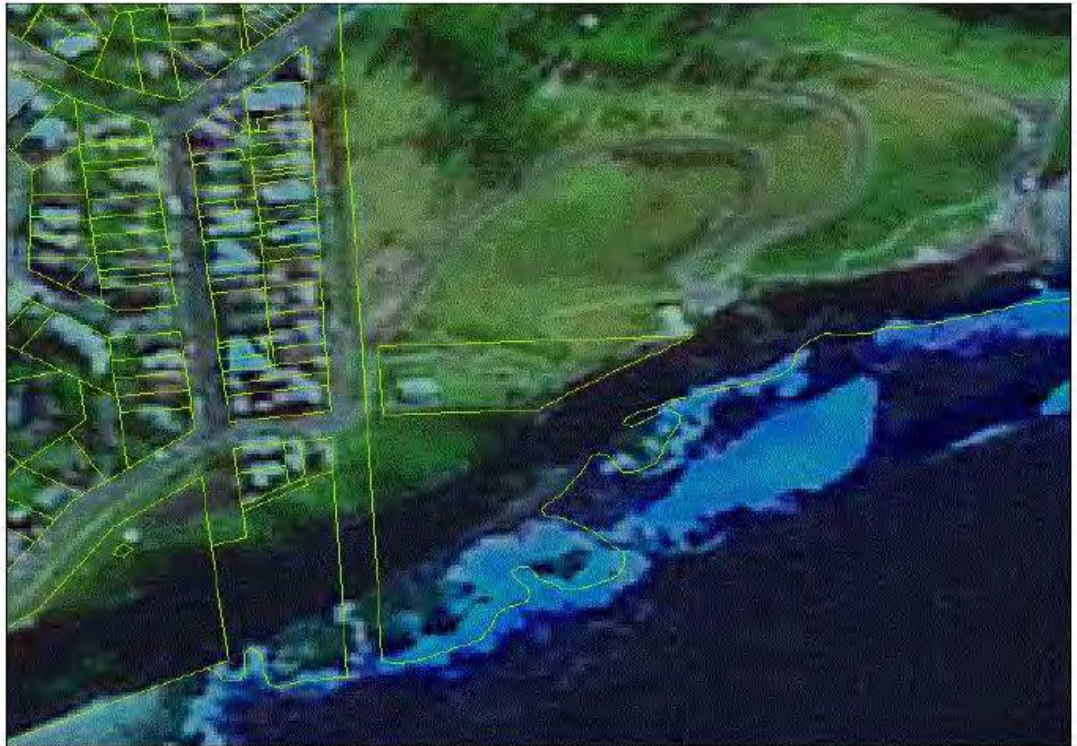


Figure 3: AHIMS search results with a buffer of 200 metres from the subject site (at Lot 3116 DP 755247), which indicates the presence of 0 recorded Aboriginal sites (Source: AHIMS Web Services, conducted by Brittany Freeland on 3 May, 2016)



Figure 4: AHIMS search results with a buffer of 1,000 metres from the subject site (at Lot 3116 DP 755247), which indicates the presence of 5 recorded Aboriginal sites (Source: AHIMS Web Services, conducted by Brittany Freeland on 3 May, 2016)

The exception to this is the 'Cabarita Park 2' (45-6-532) midden site (discussed above in reference to Step 2A). Various factors contribute to the higher preservation rate of midden sites (as discussed in Section  ). Although the above-discussed factors constitute 'disturbed' land at the proposed wharf site, a visibly identifiable and well-documented midden is located beneath the extent of the modern carpark.

***Step 3. Can harm to Aboriginal objects listed on AHIMS or identified by other sources of information and/or can the carrying out of the activity at the relevant landscape features be avoided?***

As the registered Aboriginal sites are located at a substantial distance from the subject site (between 200 – 1,000 metres), direct harm to these, through future excavation or other related activities, would be avoided. The potential for indirect harm must, however, be considered.



### 3. Summary and recommendations:

The above Aboriginal Due Diligence assessment has found that:

- the subject site contains landscape features which might indicate the presence of Aboriginal objects;
- historical evidence indicates that the Shepherds Hill landscape was used as a recreational reserve from the time of initial European settlement until 1890 when construction of the defence structures began (followed by a second phase of construction in 1942). This indicates that, whereas the site itself has been subject to fairly intensive use and development since 1890, the landscape immediately surrounding it may potentially have been left relatively intact, as it would have provided vegetative cover;
- historical evidence indicates that the landscape setting of the subject site presents a likely location for Aboriginal food processing and procurement activities; and
- historical evidence makes reference to a stone artefact site at Shepherd's Hill.

Any future works which would disturb the ground surface at the subject site, particularly those involving ground disturbance, would need to first consider the above points. While it does appear that the subject site itself is unlikely to contain Aboriginal objects, due to almost 130 years of human activities, the area immediately surrounding it is assessed as having greater potential. As historical records refer to the presence of a stone artefact site at Shepherd's Hill, it is recommended that, at a minimum, surface survey be undertaken prior to any works. Additionally, it is recommended that test pits be opened at relevant topographical locations across the site so as to assess whether further excavation might constitute 'harm' to Aboriginal objects. Guidelines for undertaking test excavations without an AHIP are outlined in the National Parks and Wildlife Act 1974.

If Aboriginal objects are likely to be harmed by the proposed activity, it is recommended that an Aboriginal Heritage Impact Permit (AHIP), as defined in section 90A of the National Parks and Wildlife Act 1974, be obtained. This process involves the following steps, as outlined in National Parks and Wildlife Regulation 2009:

- preparation of a Cultural Heritage Assessment (CHA) report;
- Aboriginal community consultation; and
- submission of an AHIP Application Form with supporting documentation.



# 1 Aboriginal Due Diligence Assessment

In 2010 the NSW Department of Environment, Climate Change and Water published the 'Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales' to guide the minimum requirements for conducting due diligence to determine whether sites or objects of Aboriginal heritage significance may be present on a site where development is proposed.

The Due Diligence Code of Practice recommends asking and answering several questions to determine whether a site is likely to contain sites or objects of Aboriginal heritage significance.

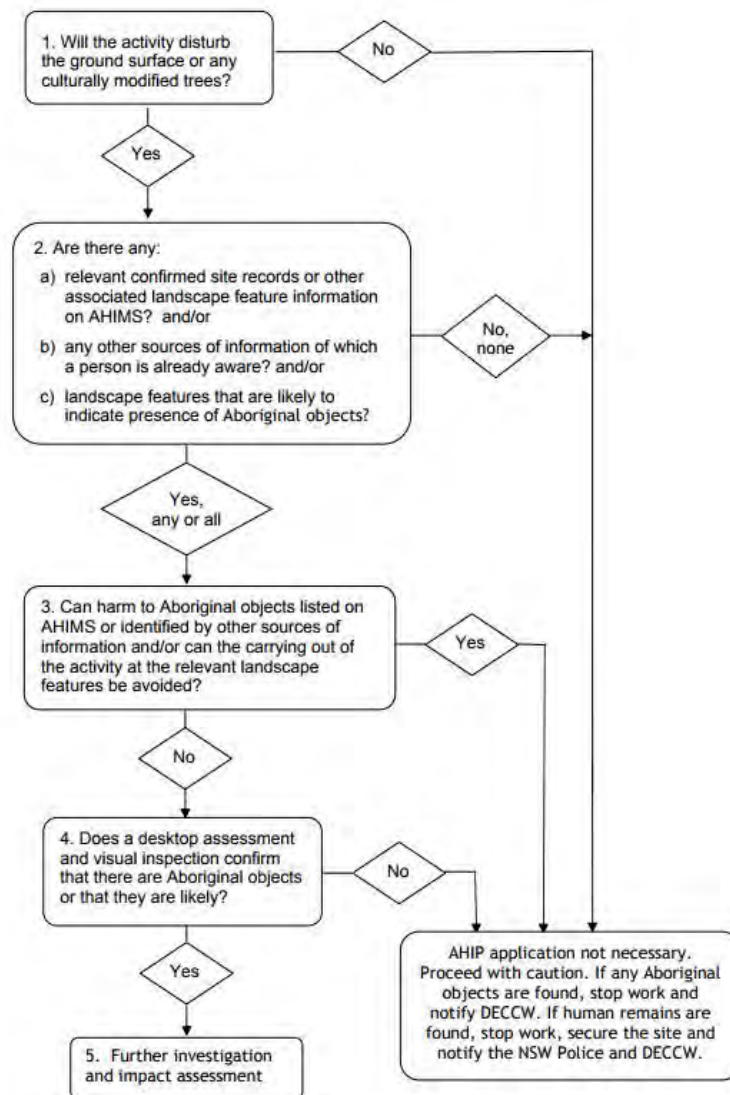


Figure 1: 'Generic Due Diligence Process', Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales. NSW Department of Environment, Climate Change and Water. Accessed on 11 September, 2017. Available from <http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf>

***Step 1: Will the activity disturb the ground surface or any culturally modified trees?***

No culturally-modified trees are recorded at the subject site. Any archaeological activities involving excavation would involve ground disturbance and would therefore need to consider whether these might result in harm to Aboriginal sites or objects. The procedure for assessing whether Aboriginal objects might be present at the site is outlined in *Steps 2 and 3*.

***Step 2: Are there any:***

***A) relevant confirmed site records or other associated landscape feature information on AHIMS?***

The AHIMS search has not indicated the presence of any recorded Aboriginal sites within a 200 metre buffer of the subject site (see *Step 2A*).

***B) other sources of information of which a person is already aware?***

At the time of European arrival, the Awabakal language group inhabited the Newcastle area. Their subsistence was defined by their proximity to the ocean and was supplemented with terrestrial game and gathered wild plants<sup>1</sup>. In general terms, historical sources suggest that Shepherds Hill would have been the potential location for food processing or procurement activities.

In more specific terms, the report<sup>2</sup> makes reference to an 'Aboriginal tool-making site', which was located at Shepherds Hill in 1916, which contained a collection of partially-worked and shaped flints. Unfortunately, no further information was obtained by the author.

***C) landscape features that are likely to indicate presence of Aboriginal objects?***

The Due Diligence Code of Practice identifies five landscape features that indicate the likely existence of Aboriginal objects, namely locations:

- within 200 metres of water;
- within a sand dune system;
- on a ridge top, ridge line or headland;
- within 200 metres below or above a cliff face; and
- within 20 metres of or in a cave, rock shelter, or a cave mouth.

The subject site is located well within 200 metres of water, as it fronts the Tasman Sea at its eastern extent. It is not located on a headland, but on a long strip of sheer coastline between the Newcastle headland (to its north-east) and the Glenrock State Conservation Area (to its south-west). Historical accounts indicate that this coastline was once lined with sand dunes, which, once cleared of vegetation by European settlers, were swept westwards<sup>3</sup>. The subject site is located on a cliff face, though this terrain does not contain any known caves or rock shelters. In summary, the subject site's clifftop location and proximity to water constitute landscape features which are likely to indicate the presence of Aboriginal objects.

---

<sup>1</sup> Kass, T. 'Shepherds Hill Defence Group – Site History' (2017). p.6

<sup>2</sup> Ibid p.3

<sup>3</sup> *Newcastle Morning Herald*, 10 April 1916, p 4. In Kass, T. (2017). p.3.

A further predictive landscape feature, as outlined in the Code, is the degree of human disturbance. Disturbed land is defined in the Code as land that “has been the subject of a human activity that has changed the land's surface, being changes that remain clear and observable”. Construction of the Shepherds Hill Defence structures involved a high degree of ground disturbance, particularly as a large component of the complex is located beneath the ground surface. Aerial photography (Figure 2) indicates where land has been cleared of vegetation at the site. Although the area immediately surrounding the subject site presents a natural appearance, historical research has shown otherwise. The construction of Memorial Drive to its north would have also involved further extensive works. The subject site therefore meets the definition of disturbed land, which is not predictive of the presence of Aboriginal objects. This suggests that if Aboriginal sites once existed in vicinity of the subject site, they were very likely removed or disturbed by human activities.

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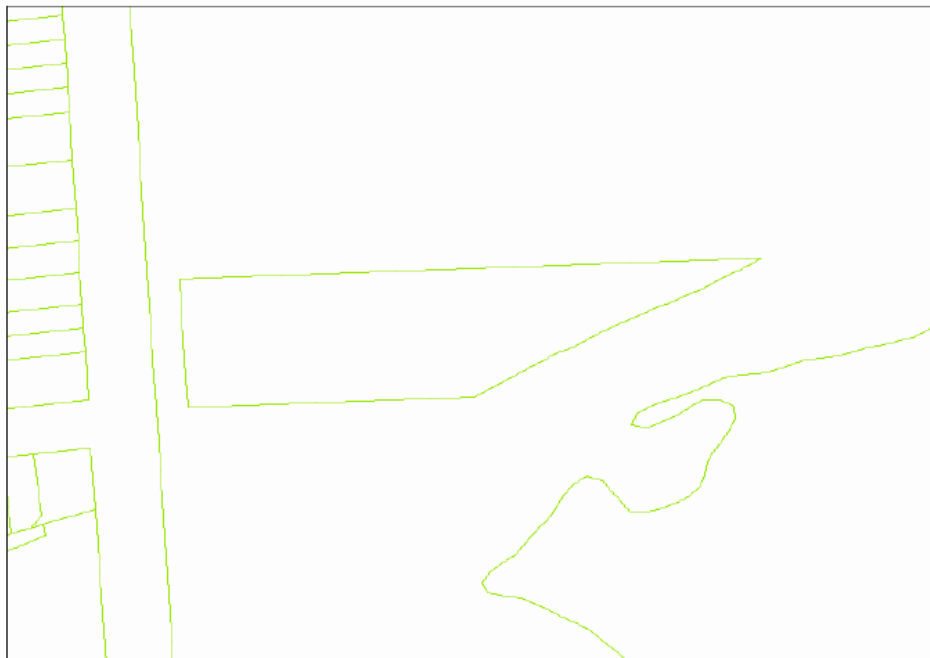


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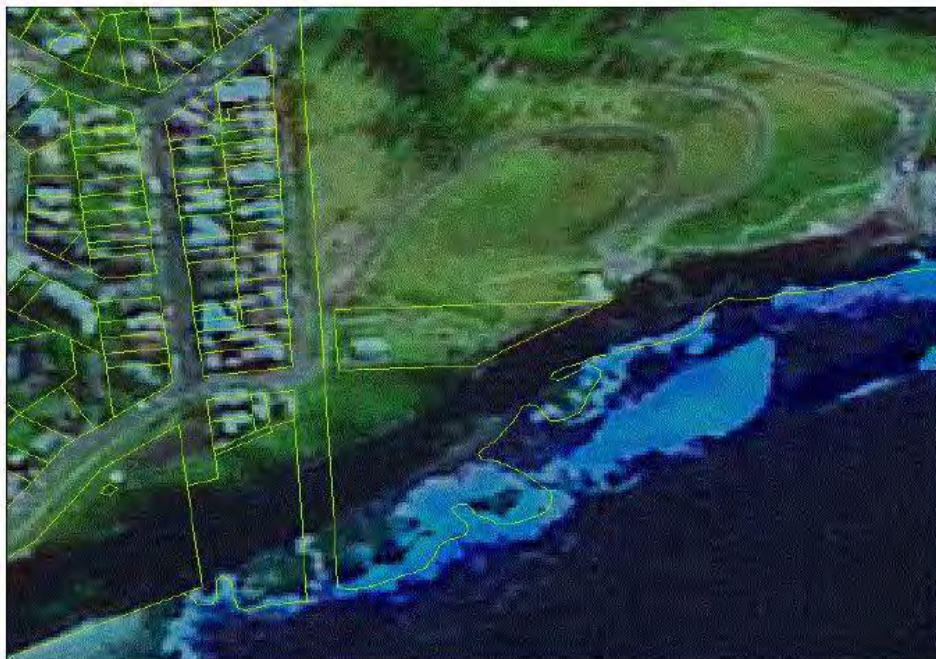


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The exception to this is the 'Cabarita Park 2' (45-6-532) midden site (discussed above in reference to Step 2A). Various factors contribute to the higher preservation rate of midden sites. Although the above-discussed factors constitute 'disturbed' land at the proposed wharf site, a visibly identifiable and well-documented midden is located beneath the extent of the modern carpark.

***Step 3. Can harm to Aboriginal objects listed on AHIMS or identified by other sources of information and/or can the carrying out of the activity at the relevant landscape features be avoided?***

As the registered Aboriginal sites are located at a substantial distance from the subject site (between 200 – 1,000 metres), direct harm to these, through future excavation or other related activities, would be avoided. The potential for indirect harm must, however, be considered.

**Summary and recommendations:**

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- the subject site contains landscape features which might indicate the presence of Aboriginal objects;
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- historical evidence makes reference to a stone artefact site at Shepherd's Hill.

Any future archaeological investigations at the subject site, particularly those involving ground disturbance, would need to first consider the above points. While it does appear that the subject site itself is unlikely to contain Aboriginal objects, due to almost 130 years of human activities, the area immediately surrounding it is assessed as having greater potential. As historical records refer to the presence of a stone artefact site at Shepherd's Hill, it is recommended that, at a minimum, surface survey be undertaken prior to any works. Additionally, it is recommended that test pits be opened at relevant topographical locations across the site so as to assess whether further excavation might constitute 'harm' to Aboriginal objects. Guidelines for undertaking test excavations without an AHIP are outlined in the *National Parks and Wildlife Act 1974*.

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- submission of an AHIP Application Form with supporting documentation.



## 12.7 Appendix G - Archaeological Report, JCIS Consultants

**THE ARCHAEOLOGY OF  
THE SHEPHERDS HILL  
DEFENCE GROUP**



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**THE ARCHAEOLOGY OF  
THE SHEPHERDS HILL  
DEFENCE GROUP —  
41 THE TERRACE, NEWCASTLE**

**REPORT BY JCIS CONSULTANTS**

Prepared for City Plan Heritage and Newcastle City Council

JCIS Consultants Report 15-032



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# **1 INTRODUCTION**

Shepherds Hill Defence Group is a series of fortifications and associated structures located on Shepherds Hill, Newcastle.

## **1.1 Background to this report**

This report is part of a number of inputs from specialist consultants to the Conservation Management Plan for the Shepherds Hill Defence Group which is being prepared by City Plan Heritage for the City of Newcastle.

As part of the tender brief for the project an assessment of archaeological potential was required along with archaeological input to the overall planning process.

This report was completed in December 2019. In March 2018 JCIS Consultants was asked to update the archaeological assessment to reflect a newly completed history by Dr Terry Kass was prepared in August 2017 as response to comments on a review of the Conservation Management Plan by the Office of Environment and Heritage.

Approval to undertake the revising of this report was received in mid-May 2018.

## **1.2 Study Area**

The Study Area is limited to the group at 41 The Terrace Newcastle, which includes the cottage and grounds, the Battery Observation Post and Gun Emplacement and surrounds (see Figure 1).

From reviewing comments from the Office of Environment and Heritage the study area has been expanded – JCIS Consultants has not been commissioned to consider the expanded study area and so the study area for this report remains the one above.

## **1.3 Heritage Listings**

The Shepherds Hill Defence Group (including the areas not included in the study area) is listed on the State Heritage Register (No. 01806) and on the Newcastle LEP 2012 (No. I460). Neither listing specifically refers to the archaeological potential of the site.

## **1.4 Methodology**

The methodology used in the preparation of this report is broadly consistent with the guidelines of the NSW Heritage Office and the principles outlined in the Australia ICOMOS Charter for Places of Cultural Significance (the Burra Charter).

The terminology used in this report is consistent with the NSW Heritage Manual and the definitions contained in the Burra Charter.

This report takes a broad view of archaeology as including the archaeology of standing structures rather than a narrow interpretation that incorrectly focuses on artefacts.



## 1.5 Limitations

This report is based on historical research and field inspections. The original historical research was undertaken to provide a context for the archaeological assessment, in particular, the assessment of heritage significance. It was not intended to be an overall site history as the scope of works for JCIS Consultants was limited to an archaeological assessment.

It should be noted that many of the original plans and files relating to Shepherds Hill and the wider topic of Newcastle's defences are held in the National Archives spread over three locations and are available only by visiting the offices or purchasing the files on-line (with a corresponding wait of 30 to 90 days, depending on the nature of the record). As such, accessing these records was not within the budget or timeframe for this project.

It is possible that further historical research or the emergence of new historical sources may support different interpretations of the evidence in this report.

As part of the public consultation on the overall Conservation Management Plan we received an extensive set of comments from Graeme Steinbeck whose expertise is based "on 4 years as a resident of Shepherds Hill Cottage (Quarters) and 29 years of researching the history of the site". He claims not to be a "Wikipedia historian"; however; as anyone who has contributed to Wikipedia knows, the information provided needs to be verified by citation of original documents or research. Unfortunately, Mr Steinbeck has not supported his statements with verifiable citations to original documents or research and has mixed these with frankly libellous assertions about the authors of this report.

Nevertheless, JCIS Consultants has assumed that these comments are an attempt to achieve a positive outcome for the Shepherds Hill site and reviewed them to enhance, where possible, the content of the document.

It is understood the Office of Environment and Heritage has provided review of the CMP in June 2017. JCIS Consultants was not provided any comments or requested to address and comments until March 2018.

The maps in this report are for informational purposes and are not suitable for and were not prepared for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

The register searches undertaken for this report are current only to the date a particular register was searched. In the normal course of events, items are added to or removed from heritage registers and users of this report should check that sites have not been added to or removed from a particular register since the date the register was searched.

The Significance Assessment made in this report is a combination of both facts and interpretation of those facts in accordance with a standard set of assessment criteria. It is possible that another professional may interpret the historical facts and physical evidence in a different way.

## 1.6 Author Identification

This report was prepared by Dr Iain Stuart and Jane Cummins Stuart of JCIS Consultants.

Dr Stuart was involved in providing input into management plans for disappearing gun emplacements and other fortifications at South Channel Fort; Fort Queenscliff and at Fort Nepean while employed at the Victoria Archaeological Survey (now part of Heritage Victoria). While at HLA-Envirosciences (now AECOM) he undertook the preparation of a CMP for Fort Queenscliff; and, while at Godden Mackay Logan, he undertook a technical review of a CMP for the Nowra/Jervis Bay area which included a number of coastal fortifications.

Dr Stuart has an on-going professional interest in such sites and has inspected coastal fortifications throughout Australia and New Zealand as well as Japan and the USA.

## 2 HISTORICAL BACKGROUND

The history of the Shepherds Hill site is relatively well-known through the history in the first Conservation Management Plan (Browne 1984) and a more detailed history by Mort (1988). Recently a more detailed site history by Dr Terry Kass has been prepared as part of the CMP for the site (Kass 2017).

The aim of the historical research undertaken for the archaeological assessment is to establish what was located on the site, some further history of the existing fabric and to place the existing fabric into a border context of defence history.

The site's history can be broadly divided into two phases – the years it was used as a gun battery and the years it was used as observation post.

### 2.1 Preliminary

Terry Kass has discussed the earlier history of Shepherds Hill and its use. He has noted that "Shepherds Hill was regularly used by the colonial volunteers for shooting matches. In 1862, the range was described as the 'private butts' of the Newcastle Volunteer Rifles. The Naval Brigade also used the butts" (Kass 2017:10). Kass reproduces the plan of Licenced Surveyor Ebsworth which locates the butts north-west for the study area.

### 2.2 Eight inch Breech Loading gun on a hydro-pneumatic carriage

Newcastle was clearly an important port for the amount of coal it shipped for export to other colonies and elsewhere, and for coal shipped to Sydney and elsewhere in New South Wales.

Defence of the narrow and tricky entrance into the Hunter River estuary was provided by Fort Scratchley, with the aim of preventing raids on shipping or temporary blockades by single or small squadrons of cruisers from hostile nations (mostly conceived of as being Russia at that time). A battery was constructed from 1880 to 1882 which was equipped with three 9 inch Rifled Muzzle Loading (RML) and four 80 Pounder (pdr) RML guns.

As Kass has documented, there was a considerable discussion on the defences of Newcastle involving Sir William Francis Drummond Jervois and Lieutenant-Colonel Peter Scratchley (both Royal Engineers and experts in fortifications having had considerable experience in to subject) who in the mid-1890s provided considerable technical advice to colonial governments on construction of defences. Their conclusion was that the defensive works at Fort Scratchley were adequate given the threats (Kass 2017:14).

In 1885, Admiral Tyron RN, commander of the Australian station, inspected the Newcastle Defences and recommended the construction of a fort at Shepherds Hill. Possibly this represented the naval view of how to defend Newcastle. This recommendation was supported by several other reports leading to the decision in 1890 to construct a battery there. The battery was to utilise a spare 8 inch gun and hydro-pneumatic mount stored in Newcastle (Browne 1984:10, Mort 1988).

Kass has provided the administrative context for the construction of NSW Defence works (2017:16). Tenders were called for construction of a battery on Shepherds Hill on 11 March 1890. Kass has viewed the extant copy of the tender document held at State Archives and reports that it consists mainly of a standard printed contract for defence works. “For Shepherds Hill, it stated the government would supply ‘the races, clip ring pivot & all holding down bolts & anchor plates’ for the armament. There was no plan with the specification. However, a Schedule of prices was included, setting out quantities of materials required plus their unit price. The contract was due for completion by 30 September 1890 with a penalty of £20 per week for lateness. The inclusion of timber, sashes and doors showed that the cottage appears to have been included in the work” (Kass 2017:16). The Schedule did not include the gun and associated equipment.

The to be mounted gun consisted of a breach loading barrel mounted on a hydro-pneumatic carriage, both designed by William Armstrong. Both elements of the gun were a technological generation from those initially mounted at Fort Scratchley in the 1880s.

## **2.2.1 The evolution of the Disappearing Gun**

Faced with negative reports of the performance of British artillery in the Crimean War (1854), William Armstrong (then well-known for his work on hydraulics) combined with the famed engineers James Nasmyth and Isambard Kingdom Brunel to develop a new gun, one that would incorporate the advantages of new materials (irons and steels of varying composition) with rifling to make improve accuracy. Breech loading was essential for the speedy loading of rifled weapons and rifling also allowed for the development of the shell – rather than the cannon ball – which could be made to greater accuracy and cause greater damage when it hit the target (Barstable 1992:218).

The key invention in this suite of technology was the method of construction of the gun barrel by shrinking hoops of iron over a central core to build up the barrel. This technique required specific types of iron and control of the heating process, both being technological advances of the Industrial Revolution. The built-up technique allowed for longer and wider gun barrels which could take the immense strain of the gunpowder used to propel the shells.

Armstrong’s breech design was not successful, suffering failures in the vent pieces in the larger guns used by the Royal Navy in the bombardment of Kagoshima, Japan. This prompted a return to the muzzle loading gun firing shells. This type of gun was called, in the British service, Rifled Muzzle Loaders (RML) (Maurice-Jones 1959:167-168).

Armstrong’s continued making RML guns and sold them quite widely to the colonial services (Garie, 2013, Oppenheim 2005). The guns mounted at Fort Scratchley were 80 pounder RMLs. The RML type was developed to quite extraordinary sizes, allowing heavy shells to be projected to a greater range than the traditional cannon ball. They used vast amounts of gunpowder and this inspired attempts to develop gunpowder into a more effective propellant. RMLs were, however, cumbersome to load and thus the rate of fire was slow.

The greater ranges of the guns resulted in the need for a better way of ensuring the shells hit the target at a longer range. This resulted in the development of the Depression Range Finder in 1879, which allowed for an accurate range from the gun position to the target to be calculated (Maurice-Jones 1959:173).



Finally, the embryonic science of operational research began to be applied to the results of a bombardment, which led to the surprising conclusion that sea bombardment of a coastal fort resulted in very little damage to the actual guns; rather it was their crews that were killed or wounded and, thus, incapacitating the forts. This discovery prompted the design of forts and mountings that protected the crews.

The hydro-pneumatic carriage designed by Armstrong's married the company's expertise in hydro-pneumatic power (as demonstrated by the hydraulic cranes which serviced the coal loading wharfs at Newcastle) as well as their expertise in artillery. The carriage harnessed the recoil of the gun to swing it back and down beneath the parapet of the emplacement where it could be loaded and pointed. The swinging motion of the recoil compressed a hydraulic cylinder and this, once released, swung the gun up to fire. The gun – when seen from an attacker's point of view – disappeared from sight only to return to fire again, consequently making it a difficult target (Figure 3 & 4).

However, this was only the carriage – the gun tube itself had been developed over the years. The advent of grain powder meant that the forces in the barrel were less and thus the barrel was lighter. Armstrong's had also developed the interrupted screw form of breech block which perfected the breech loading system. The immediate effect of this was that the process of loading the gun was far easier than loading the RMLs.

The mounting at Shepherds Hill was of an 8 inch Armstrong Breech Loading gun on a hydro-pneumatic carriage. In 1890 it was a fairly modern form of technology, although it should be noted that artillery technology was rapidly developing – in particular with the introduction of nitro-based propellants (the so called smokeless powders such as cordite which were far more efficient in propelling the shell) and thus gun ranges increased while gun size per weight of projectile decreased.

Although some writers have seen the “Disappearing Gun” technology as a form of “con” perpetrated on the colonies by Armstrong's (see Oppenheim 2005:139), the reality is that the mounting was widely adopted throughout the Empire. There are examples in most of the Australian states, in New Zealand (Figure 4), Canada and in the UK itself (for example the Tyne (Forster 2004) as well as in Thailand at the Phra Chulachomklao Fort and the Phi Sua Samut Fort (Quarmby 2009). The “disappearing” principal was developed by the US Army into the disappearing carriage based on the use of counterweights rather than hydraulics and deployed during the Endicott phase of fortifications in the United States and in the Philippines (Lewis 1979).

The force that resulted in the replacement of the hydro-pneumatic in the British service was that of rapid technological change – the development of a central pivot mount by Vickers, the adoption of nitro explosives allowing ammunition to be smaller and more easily handled, and the threat posed by the Imperial German Navy pushed the rate of change in defences faster in the United Kingdom and resulted in the relatively quick replacement of hydro-pneumatic carriages with central pivot mounts.

In the colonies, though, the hydro-pneumatic guns remained in service for some time – as an extreme example the mount at Taiaroa Head in Otago, New Zealand, was apparently made serviceable in the early 1940s to counter the Japanese threat. Nevertheless, the hydro-pneumatic guns were gradually replaced by the next generation of guns mounted on central pivot mountings from c1905 onwards (Oppenheimer 2005:193-201).

### 2.2.2 The gun as a weapons system

The guns obviously needed a system for hitting their intended target. Typically, this was some form of open sight on the gun barrel which allowed the gunner to point at the target. This worked, at best, to a range of approximately 1500 yards with a fairly large target, but after that distance the time of flight of the cannon ball or shell would mean that the target would have moved away from the spot aimed at (see Freeman 2008:21-22). Consequently, there was a need for a more sophisticated system of fire control.

The 8 inch gun had a range of some 8000 yards which would take some 21 seconds in flight to the target (see Instructions). What was required was the location of the target, generally given as a range and azimuth and the rate at which the target's location was changing. This would allow the Gun Commander to predict where the target would be and, taking into account weather conditions and the characteristics of the gun as well as the type of gunpowder to be used, a shot would be fired off.

Most diagrams of hydro-pneumatic carriages, and some in-service photographs, show that there was a position for an observer on the mount itself but, in addition, there were positions away from the gun and its smoke and concussion where a depression rangefinder would be located.

The Watkin depression range finder (DRF) was a device, not unlike the standard Surveyors' theodolite of the time that measured the range and azimuth of the target (Figure 5). It relied on the precise height of the DRF above the sea being known (including a measurement of the tide) and that the waterline of the target could be seen. Provided all went well, then the range and bearing to the target would be calculated and the gun pointed and elevated accordingly.

The Shepherds Hill gun emplacement had two positions for DRFs about 36.2 yards apart. If used together to take simultaneous observations, the results would be a more accurate range obtained by triangulation. However, it would require considerable co-ordination between the two posts as well as quick communication so it is not clear whether this was the intended use. Otherwise either of the two posts could be occupied depending on the conditions (smoke from the gun being a major problem) and the information transmitted to the gun emplacement.

According to a report of an inspection of the fortifications by Major Bridges in 1901 (quoted in Browne (1984:11)), one of the pits was set up for General French's system (of fire control) while both of them were set up for the "Service System". It is assumed, following a description of General French's system ("Coast Defence", *The Queenslander*, 2 July 1898: 25) that the observation posts and the battery were linked by some form of telephone. The telephone connection extended to the Newcastle command post on Obelisk Hill which was connected to Fort Scratchley and Shepherds Hill (*Maitland Daily Mercury* Wednesday 16 May 1894, page 2). It is not clear how the command post operated to co-ordinate the fire of the guns from both positions. (The General French referred to was the Commander of the NSW Colonial Forces and not Sir John French, Commander of the British Expeditionary Force (BEF) in France.)

A final but little considered aspect is that of the ammunition which consisted of a propellant and a shell. The propellant was gunpowder which, specifically, the manual for the 8 inch gun identifies as two types of charges: Battering, consisting of two 50lb bags of

prismatic powder, and Service (or Full), which was two bags of pebble powder, making 75lbs in total. The Service charge was for use with a common or shrapnel shell while the Battering charge was for chilled projectiles or solid shot which, it was claimed, could penetrate 14.9 inches of wrought iron. The two types of gunpowder (prismatic and pebble) were those improved types adopted by the British in the mid-19<sup>th</sup> century (Buchanan 2006).

The shells available were a solid shot, a common shell and a chilled shell, two of whom (the common shell and the chilled shell) with a fuse and gunpowder bursting charge and shrapnel, and a gaine with a fuse and gunpowder bursting charge. All weighed around 180lbs, a considerable weight to carry and manoeuvre. The manual indicates that, typically, the shells were filled and the gunpowder charges were bagged within the magazine. It is not clear whether this was the case at Shepherds Hill.

### 2.2.3 Changing roles

The lowest tender for construction was from James Russell and Co for £3,689/9/3. Acceptance of the tender from James Russell and Co for the construction of a battery at Shepherds Hill was officially gazetted on 9 April 1890 (NSW Government Gazette 9 April 1890, p 2261). Colonel F R de Wolski, Director of Military Works inspected the guns in 1891, presumably when work was completed. The Shepherds Hill gun was fired for the first time in May 1892 when reduced chargers were used to test the working on the mount (Mort 1988). In May 1894 during a well-publicised training exercise the gun fired full charge rounds under the command of Lieutenant W Lyne (Mort 1988).

With Federation in 1901 the Defence role undertaken by the individual colonies was transferred to the new Commonwealth along with state defence works. Shepherds Hill was included in the facilities transferred from NSW.

The report of the inspection of the fortifications in 1901 by Major Bridges in connection with Commonwealth taking over assets (Browne (1984:11) suggests that the site was used in 1901 as “a general store and dressing station” although there is no suggestion that the armament was removed or non-functional at that stage. Nevertheless, the obvious implication is that the battery was being used for other military purposes.

In October 1903, the New South Wales Government Committee valuing assets that were being transferred to the Commonwealth estimated the value of the land of Shepherds Hill fortifications as £1,750. Shepherds (Kass 2017:20).

In 1906, the Colonial Defence Committee reported on the fixed defences at various ports in Australia including Newcastle. The general recommendations were to upgrade the defences to standardise on 6 inch guns on a central pivot mounting and to supply DRP and electrical connections to each mount. Regarding Shepherds Hill, the report commented “there is need of re-arming Shepherds Hill or retaining the 8” gun mounted there” (Colonial Defence Committee 1906:19).

There was a major episode of “creep” subsidence caused by collapses in the goaf of the Sea Pit Colliery whose workings were underneath Shepherds Hill. A report in 1906 outlined the impact of the subsidence noted that “damage was done to Shepherds Hill fortifications, a crack in the concrete foundations throwing the big gun out of position by several inches” (*Australian Town and Country Journal*, Wednesday 23 May 1906, page

54). Effectively the gun was dismantled and could not be used until extensive repairs were undertaken.

In 1908, a more detailed valuation of assets transferred from NSW to the Commonwealth was prepared and described the defence property at Shepherds Hill as follows:

SHEPPARD'S [sic] HILL FORT

MILITARY LANDS COMPRISING –

1 acre 2 roods 23 perches, Parish of Newcastle, County of Cumberland, gazetted 10th March 1894

[£] 1,750

One gunpit for H. P. gun with shell recesses, covered passages round pit and to magazine and shell room, general store, lamp room, tube and fuze recesses and two D.R.F. stations

Quarters – Weatherboard, lined and corrugated iron roof, with verandah, for Non-Commissioned Officers and men, comprising latrines, three rooms, two kitchens and pantries: latrine, coal shed outside, brick paved yard, corrugated iron and picket fence, three fire-hose service; water laid on Fort and quarters enclosed with barbed wire fence with gates

[£]5,250

Total Sheppard's Hill Fort 5,250 [+] 1,750 [£] 7,500.1

(Cited in Kass 2017:21)

In 1910 a report critical of the state of Australia's defences noted:

"Again, it would be interesting if some authentic information could be obtained in reference to the 8in B.L. fort at Shepherds Hill, Newcastle. Whether since the underground "creeps" there has been any firing from this important gun; and if not, what steps are to be taken?" (*Sydney Morning Herald*, Saturday 17 April 1909:5)

The subsidence damage may be one reason the fort went out of service. The other reason clearly was that the new artillery technology that had emerged from the 1890s had rendered the hydro-pneumatic carriages obsolete. Quick firing technology allowing for gun recoil to be absorbed in the mounting and for quicker loading had been developed along with nitro-based explosives which were far lighter for their power than gunpowder. These developments came together with the 6-inch Mark 7 gun which entered service in 1898 and gradually replaced all the earlier models (Gander 2011). The weapon had a similar range to the Shepherds Hill gun and its lighter projectile weight was offset against its much greater rate of fire and more powerful explosive in the projectile.

The Colonial Defence Committee had recommended the construction of a further battery of 6 inch guns at Stockton as well as adding two 6 inch guns to Fort Scratchley (Mark VII guns on C.P. Mark 11 mountings in service 1913) and clearly had not seen a role for the Shepherds Hill gun. Therefore, notwithstanding the subsidence issue, it seems likely the battery would have gone out of use in any case.

Mort states that the 8 inch gun was removed from Fort Scratchley about 1910, and he suggests that the Shepherds Hill may have been removed at that time as well (Mort 1988). Kass notes however that no primary source has been located verify this but has



located a source stating that in 1920 the gun was sold to the BHP Steelworks as scrap metal (2017:22).

Without a gun the Shepherds Hill fortifications had no role to play in World War I although it should be noted that the German High Seas Fleet bombarded several English coastal towns in 1914 and 1915. The defences, which were similar to those at Newcastle, fired back but of course what prevented further raids was the presence of the Royal Navy's Grand Fleet rather than the coastal defences. The experience of these bombardments resulted in rethinking of coastal defences and improvements in their functioning and organisation for the UK which was then diffused throughout the empire in the post war period via Manuals and posting of Australian Permanent Force Members to courses in the United Kingdom.

## 2.3 Observation post

Shepherds Hill even without the gun was a site of military importance for the views it commanded of the seaward approaches to Newcastle. In 1915 moves were afoot to relocate Newcastle's Port War Signal Station to Shepherds Hill. The aim of such a facility was to identify whether ships approaching Newcastle were friendly or hostile, to signal ships instructions and to communicate with Newcastle's defences especially the examination battery (which would fire at ships not obeying signals). It is not really clear when the Signal Station was constructed and put into use. Kass reports a prolonged discussion about ownership of the site but later he quotes a report that states that the RAN took over the site in September 1916 (Kass 2017:22-28).

Plans of the site from 1919 show that a wireless mast and associated wireless hut was constructed along with a lookout. Kass cites documentation that the men staffing the station were living in the gun pit while Officers were accommodated in the Master Gunners House and the Petty Officers in the lower levels of the lookout building. Urgent upgrading of the accommodation was required.

This work was authorised in 1918 to construct new men's quarters, WCs, shower baths, etc at Shepherds Hill Port War Signal Station for the Navy at a cost of £363.2. The works were completed by 3 September 1919 (Kass 2017:22-28).

In the post-World War I era defence spending was markedly reduced, especially in Australia where reliance on supposed assurances that naval support from Great Britain would come should a creditable invasion threat to Australia emerge (the "Singapore Strategy" was used to justify minimal spending on defence). However, there was still the threat of raids by cruisers and submarines and, in 1925, the Committee of Imperial Defence reported extensively on the strategic situation, threats and defences facing Australia (see Oppenheimer 2005:203-208).

Newcastle was to be defended by two 6 inch guns and four 9.2 inch (counter bombardment) guns. These were to be organised on a fortress system where a central fortress command post could coordinate the spotting information and develop a plot from which the fire of all the guns in the fortress could be directed onto a single target. Additionally, each battery was to have its own observation post, and other observation posts (not a part of this report) were located around Newcastle.

All these observation posts fed information to the central fortress command post, and all sites were linked by telephone. The central fortress command post contained a fortress plotting room where observations from all the observation posts was resolved on the fortress plotting table (effectively an analogue computer). The observation also reported the “fall of shot” to allow the range to be adjusted. By coordinating the ranges, bearings and rate of change from all the observation posts a much more accurate fire solution could be obtained and applied to all the guns available.

The threat from the air was recognised, but the threat was seen primarily as being from “land planes” as, at that time, the development of the aircraft carrier as an offensive weapon within a naval fleet had not occurred and was not foreseen.

In the event, defence spending remained low until the mid-1930s. The proposed works at Newcastle were not put into effect until plans for a two gun, 9.2 inch counter bombardment battery at Fort Wallace were prepared in the mid-1930s. The plan emerged as the two gun battery plus additional observation posts and Defensive Search Lights. Construction was planned to start in the financial year 1937/38 (Australian Military Forces, n.d.). Excavations began in 1938 and continued until 1940 when the guns were operational. However, the low height of Fort Wallace (approximately 70ft or 21.35m), was insufficient for range-finding by a vertical base rangefinder. The nearest – and obvious – high ground for such an instrument was at Shepherds Hill (Mott 1988).

According to Browne the notation “A Building Work Sheet entry for 25.1.1936” refers to the “Construction F.C., BOP and FOP” (Fire Commander, Battery Observation Post and Fortress Observation Post). The contractor was C. Hutcherson of Homebush. The tender was accepted on 8<sup>th</sup> November 1939 and the work completed by 31<sup>st</sup> January 1940. Subsequent entries for 1940 refer to the fitting out of the building (1984:13).

Thus, the basic structure dates to 1940. It is clear from the information in Kass’ report that the Port War Signal Station remained at Shepherds Hill when the co-existence of the Army’s Battery and Fortress observation posts was seen as an advantage (Kass 2017:35).

A DRF was installed, transmitting the positions and ranges of targets electrically to the Battery Plotting Room (BPR) at Fort Wallace. “An alternative method of range-finding for Wallace Battery was by combining cross-observation of bearings from two fixed Fortress Observation Posts (F.O.P) which when applied to a special instrument in the Fortress Plotting Room (also located at Fort Wallace) , indicated target position in terms of a map-reference as well as details of target course and speed. Target position details were converted to gun range and bearing in the B.P.R by a Co-ordinate Converter (C.C.).” (Mott 1988)

The FOPs were located at Redhead, Shepherds Hill, Close Defence Battery Observation Post (CDBOP) and at “Wipers” (in the sand-dunes about five miles NE of the fort at Stockton). Any two of these could be used to give target bearings. The FOP at Shepherds Hill was located in the top tier of the concrete building, and originally afforded a 180-degree field of view to the eastward (Mott 1988).

Similar structures and guns erected around Sydney and Wollongong formed the basis of the fortress defence for Sydney (see Fullford, 1994, Oppenheimer 2005).

### 2.3.1 Radar installation

Although other nations and scientists were working along the same lines, radar was developed in the United Kingdom from 1934 onwards. Radar works on the principal of transmitting radio waves on certain frequencies and receiving signals reflected back from materials. It is the interpretation and analysis of these returned signals that can be used to determine range and bearing and, using the change in frequency of signals, the range rate (rate of change in location). From 1935, when radar was first able to detect aircraft, Great Britain was actively developing and operationalising radar, firstly in the Chain Home System for air defence and then adapting radar for use in aircraft and at sea (see Mellors 1958:422-425 White 2007:1-13).

The radar secret was first shared with Australia (and the rest of the Commonwealth) in February 1939 with the request that an appropriately trained individual be sent to Great Britain to be briefed on the issue. Mellors points out that Australia was not simply a passive recipient of radar technology but had expertise in the ionosphere, atmospheric and radio-propagation in general and, so, was well placed to understand the physics behind radar as well as having the capacity, in a limited way, to produce radar (Mellors 1958:426-427).

Dr D F Martyn was dispatched to the Great Britain and returned with voluminous reports and blueprints and a number of important radio valves (Mellors 1958:427). This resulted in the Australian Government authorising a modest program of research and development and some training in radar in co-operation with the overall British effort. It seems that the Army was the loudest in its support for radar in Australia, mostly for coastal defence and, accordingly, a coast-watching or Shore Defence (ShD) radar set was developed and produced by the Postmaster-General's Department of Australia (PMG). At the army's request the laboratory also began experimenting with air-warning equipment (Mellors 1958:430).

The prototype of the ShD radar built in the Radiophysics Laboratory was erected for test on the army testing ground at Dover Heights. During its first trials in May 1940 it picked up a ship off Port Stephens, a distance of about 90 miles. In February 1941, an "all radar shoot" with 9.2 inch guns and ShD equipment – perhaps the first of its kind in the world – was held at North Head, Sydney (Mellors 1958:431-432).

Mellors notes that the ShD radar had several technical advances on that used in the Chain Home Defences, in particular the use of the scanning beam technique for detection and the development of a single aerial were used for both transmitting and receiving radar signals (Mellors 1958:431). In all, from 1941 37 ShD sets were built at a cost of approximately £290,000.

The Army's plans for installations are outlined in a "Most Secret" document "General Description of Sh. D. in Australia 1941", dated September 1941. In general the site required a building for the radar, a separate building for an independent petrol generator to supply power, a site for the aerial and accommodation for operators and maintainers.

At Shepherds Hill it was noted that a "special building was required"; presumably this was an adaptation of the existing post:

“(a) Shepherds Hill, Newcastle

Here there is a large existing building in which there already exists a visual observation post. A special room to house the R. D. F. apparatus is to be added, while the aerial will mount on top of the existing building...”

(AMF 1941 at 1.11)

The radar was noted as serving the batteries at Fort Scratchley and Fort Wallace. The aerial was 30ft above the top of the Observation Post and orientated to 127° with an arc of 170°.

Some changes to the operation of the fortress system were required to incorporate the use of radar:

“The fortress systems at present use azimuth angles derived from several F.O.P's observation of the target and by use of any two of these angles the coordinates of the intersection are plotted on a horizontal plotting table. This is the arrangement with visual observation only as used to date.

R.D.F. stations give accurate range and either visual or R.D.F. azimuth. The main data under all visibility conditions, however, are ranges. Plotting tables had therefore to be designed to accept ranges instead of azimuths in determining the coordinates of the target. For this purpose the RR plotter, type 101, or sometimes referred to as MI- A7 , was developed to accept ranges Rand R' from two stations , these being used to set the lengths of two arms whose intersection then gave the position of the target...”

(AMF 1941: Section 5)

Communication with the Fortress Plotting Room (FPR) was by telephone. Three sets were provided with the operators wearing a head set and communicated data to the FPR.

According to Mott (1988), the radar was installed in the top section of the Observation Post displacing the FOP and the BOP one level down. The long window-space originally provided was almost completely closed in, leaving only three small windows (Figure 6).

It is not clear when the ShD radar was made operational, but it was certainly in place by January 1942 when the Royal Australian Air Force (RAAF) Air Warning Radar (AWR) was installed.

### 2.3.2 RAAF Air Warning Radar

As mentioned above, in 1940 neither the Royal Australian Navy (RAN) nor the RAAF saw the need for radar in Australia (Mellors 1958:430); however, in September 1940 Wing Commander Pither (apparently the only RAAF representative) left for the UK to attend a two month's course at Radio (Radar) School. While in the UK and on his return trip via the USA, Pither was able to see aspects of radar development in the British Army, Navy and Air Force. On his return to Australia in May 1941, Pither was put in the position of leading the RAAF's radar activities (Simmonds and Smith 2007:3-4).

Pither was involved, with other RAAF staff, in discussions about the need for an air warning radar system for Australia and its territories during 1941 culminating in the Cabinet decision, in November 1941, to install radar and give responsibility for radar air



warning to the RAAF (Simmonds and Smith 2007:5). It appears there were only four sets of radar available for deployment at that time and at least 26 locations where radar might be required.

As well as an order being placed with the UK for radar units, local development and production of a suitable radar system (known as AW) was initiated (Simmonds and Smith 2007:5-7). Australian production began immediately after Pearl Harbour and the onset of the Pacific War when a trial unit was developed from component parts then to hand, many from the ShD radar. This trial unit was erected at Dover Heights and was operational on the 12<sup>th</sup> December 1941 (Mellors 1958:435, Simmonds and Smith 2007:8). Following on from this, production of six AW units was authorised:

“The first ground radar station operated by the RAAF was installed by SqnLdr (then a PltOff) R S Choate and party in collaboration with Radiophysics (RPL) who had the equipment in their possession. The RPL arranged for the set to be installed in an Army establishment at Shepherds Hill, near Newcastle, NSW, using the aerial and building being erected for an Army SHD installation...”

(Simmonds and Smith 2007:10-11)

“WOff. Arthur Field, and other mechanics, who worked on the installation agree that it had a CD/CHL receiver...”

(Simmonds and Smith 2007:11)

(This was one of the British radar units sent to Australia and not the Australian AW set as occasionally claimed. The first operational use of an AW unit was at Darwin where it arrived in the midst of the first air raid and its aftermath.)

The RAAF installation party, consisting mainly of the students who were on No. 1 Ground Course at Richmond, moved to the site on 31 December 1941 and the unit became operative on 10 January 1942. No number was allocated to the unit while it was at Shepherds Hill (Simmonds and Smith 2007:11). The RAAF operated the radar from this location until 19 April 1942 when it was moved to Bombi Point, NSW and was then known as 19RS.

It is worth noting that there were two radar sets at Shepherds Hill; the Army ShD set used for detecting shipping and, for a short time, the RAAF air warning set.

### **2.3.3 Port War Signal Station**

The RAN was also located in the observation post; this was the Port War Signal Station. The main function of this post was the identification of warships approaching or within sight of the port, and the transmission of that identification to RAN H.Q. and the Coast Artillery. This was very important, clearly, to avoid cases of mistaken identity and possible “friendly fire” incidents. The Port War Signal Station was on the southern – or Merewether – side of the post (Mott 1988). This seems to be in contrast with the location on the 1919 plans and it may be that the older buildings were relocated to the new observation post. The wireless mast is shown on a 1940 plan so it may have survived until that time.

### 2.3.4 The Park Battery Observation Post

Following the onset of the Pacific War in December 1941 plans which had been prepared for a second two-gun battery to cover areas not protected by either Fort Scratchley or Fort Wallace were speedily implemented. The area around Shepherds Hill had been selected as a suitable site, and the construction of gun platforms, as well as searchlight and engine-room emplacements, was undertaken by the Hunter District Water and Sewerage Board (Mott 1988).

This new battery was called the Park Battery and was equipped with two 6 inch Mark VII guns and two searchlights along with underground engine rooms and magazines. Battery Observation Post and Searchlight Directing Station were constructed immediately in front of, and attached to, the earlier concrete building; with the Directing Station occupying the upper level of the two-level addition. The BOP occupied the lower, or more easterly, level of the post. The range-finding instrument was a Depression Range Finder, mounted at a height of 228ft (69.5m) (Mott 1988).

Unfortunately, Mott does not record when the Park Battery was operational, but it is listed in the 1944 schedule of defences.

### 2.3.5 Accommodation

Accommodation for the multitude of personnel based at Shepherds Hill was a complicated affair. Each service required three standards of accommodation (Officers, Warrant Officers and Enlisted men) and with Servicewomen being based there separate accommodation for females was required.

On 29 December 1939, a Specification was issued for the erection of camp buildings including mess huts, officers' and men's quarters, kitchen, ablution block and latrines at Shepherds Hill. The work had to be complete by 21 February 1940 (Kass 2017:37). In November 1940, a Site Plan was prepared of Shepherds Hill plus plans of Buildings Type A; B & C; D & E.2 They formed the basis for a Specification dated 28 November 1940 for the erection of 5 framed buildings at Shepherds Hill Site as in plan DEF24650. Since they were identified as 'Naval Works', they appear to relate to the Port War Signal Station (Kass 2017:39).

The issues of accommodation of servicewomen was first raised in 1942 with the potential deployment of WRANS the main concern being the provision of showers and toilets.

"A significant plan by 2 Australian Chief Engineer (Works) of Shepherds Hill dated 14 March 1944 showing the 'Alterations & Additions For A W A S Army and Navy' [AWAS was the Australian Women's Army Service] provided considerable detail about the site. The plan showed the buildings on site plus their current uses. A Table on the plan detailed building occupiers and building functions. These included facilities for the WRANS [Women's Royal Australian Naval Service].<sup>4</sup> This plan also confirms that during World War Two the Shepherds Hill Battery site was occupied by Navy personnel, manning the Port War Signal Station, Army personnel in the Battery Observation Post, and Royal Australian Air Force personnel who operated the radio communication with aircraft. The addition of Australian Women's Army Service and Women's Royal Australian Naval Service personnel adds another layer to the intensity of military use and occupation of this site during World War Two" (Kass 2017:50).

Examination of the plans discovered by Kass shows that the buildings were mainly located to the west of the old gun emplacement. The buildings were of a standard war time design using timber frames, A/C sheeting and Corrugated Iron or Asbestos roofing. The buildings were on stumps.

### **2.3.6 Post War use**

In October 1951, it was reported that the 'former radar station' on Shepherds Hill would be renovated for military activities ready to become the headquarters for 11 Cadet Battalion. The radar equipment had been removed after the war. Renovation works were expected to commence on Monday, 15 October 1951. After painting and interior renovations to the site, headquarters moved to Shepherds Hill late in November 1951. Shepherds Hill was also the depot that issued uniforms and equipment to cadets from the high schools of the Hunter district (Kass 2017:54).

The whole question of coastal defence was under discussion in the 1950's in view of the new age of Nuclear Warfare. Eventually in October 1962, the Joint Chiefs of Staff decided to abolish fixed coastal defences in favour of a mobile defence better suited to respond to then current threat levels (Fullford 1994:239).

Despite the abolition of its core function Shepherds Hill was still owned by defence and accommodation was provided for Defence personnel in the cottage.

In 1984, Newcastle City Council received a National Estate Heritage grant for a Conservation Study of the site plus restoration work. The firm of Gardner Browne completed that study. By 1989 the land had passed from the Commonwealth to the State of NSW and the site was under the control of Newcastle City Council.

### **2.3.7 Summary**

The Observation Post at Shepherds Hill must have been a fairly busy location during World War II with numerous war time construction activities as well as the day to day activity of watching and waiting for the attack that almost never came.

However, as is well known, in the early morning of the 8<sup>th</sup> June 1942 Submarine I-21, of the Imperial Japanese Navy, fired 34 rounds at Newcastle. After a 13 minute period, four rounds were fired back from Fort Scratchley under local control and then fortress control from Shepherds Hill (Horner 1995:308-309). The Japanese submarine ceased firing and left the area.

### 3 PHYSICAL EVIDENCE

This section of the report describes the archaeological fabric of the Shepherds Hill site, including the Gun Emplacement and the Observation Post and associated structures.

The names of the buildings, structures and features are from the Browne Conservation Management Plan (1984) for consistency; although the term “store” has been changed to “magazine” to reflect appropriate usage (see Figures 7, 8 and 9).

The site was inspected on the 17<sup>th</sup> May and 8<sup>th</sup> June 2016.

#### 3.1 Site setting

The principal characteristic of Shepherds Hill is its height which gives it a view from roughly north around to the east, south and to the west taking in the Stockton Bight and the mouth of the Hunter River.

Due to Shepherds Hill's height of 70m, observation from the fortifications in 1890 would have been 17.73 nautical miles to the horizon (32.536km) as opposed to the 11.98 nautical miles (22.187km) from Fort Scratchley. This was a huge advantage for the Newcastle defences as a ship traveling at (say) 12 knots would be in sight from Shepherds Hill for some 28 minutes before being able to be seen from Fort Scratchley.

The site also affords views to Fort Wallace and the adjacent Park Battery.

#### 3.2 8 inch breech loading gun on a hydro-pneumatic carriage emplacement

The emplacement of the eight inch gun consists of the following features:

- Gun Pit
- Pump chamber
- Main passage,
- Vent over main passage
- Left (North) DRF and passage
- Right (South) DRF and passage
- New passage to Shell magazine
- Shell Magazine
- Cartridge Magazine
- Casemate
- Entry Ramp



### **3.2.1 Gun pit**

The concrete gun pit housed the hydro-pneumatic mount and the gun – both of which have been removed. The pit is circular with a sloping curved parapet.

Inside the pit are remains of the bolts for the mounting, a filled-in central pit which would have formed the location for the hydraulic cylinder, the mounting pivot and anchor bolts that secured the mounting to the concrete structure of the emplacement.

Around the side of the gun pit there are inserts in the concrete. Steinbeck, in his comments, notes that these were shell, cartridge and lamp recesses, and also tubes and fuses recesses.

The cartridge recesses, behind the gun pit, were for storage of the cylinders that contained the cartridge bags. The shell recesses were of two types: recesses with a timber insert installed were for the base-fused shells; and the concrete recesses were for nose (top) fused shells/rounds. However, no information is provided about which recess served which function.

There are four entrances to the gun pit. These are from a passage that runs parallel to the curve of the gun pit providing access, and a passage for material such as cartridges and shells. There are the remains of a single rail used as a mounting for a small travelling crane in the roof of the passage. This would have been for the carriage of the shells. Cartridges and shells would also have been carried on trolleys to the gun.

The gun pit seems to be in good condition with little evidence of damage or repairs; this is surprising in view of the reported damage to the pit from the creep incident of 1906.

The central pit which is filled in with sediment and rubbish has some archaeological potential to contain the anchor bolts and pivot for the mounting.

### **3.2.2 Pump chamber**

The pump chamber is off to the southern side of the gun pit and was the location of the pump used to charge the hydraulics of the mount. There is no evidence of any items relating to the pump.

(Steinbeck claims to have identified some bolts for mounting the pump and evidence of drains in the pump chamber.)

### **3.2.3 Main passage**

The main passage runs straight from the entry ramp through to the gun emplacement on an east-west axis. It has passages off to the shell magazine and the cartridge magazine as well as the two DRF posts and the passage behind the gun pit.

Although the passage would facilitate movement of material into the magazines and to the gun, having it straight is probably a design weakness as the blast from a shell exploding in the entry ramp area could be transmitted through the passage to the gun pit.

### **3.2.4 Vent over main passage**

This is a shaft or light well from the surface into the main passage. The vent is covered with an iron, presumably to protect it from explosion. It is not clear what the purpose of the vent is. The magazines would have to be kept dry and free from damp, as gunpowder was particularly susceptible to damp. The vent may have been one way to keep the airflow through the magazine and eliminate damp. (Alternatively, Steinbeck suggests it may have been to allow air to be drawn into the casement as the gun fired.)

### **3.2.5 Left (North) DRF and passage**

This passage provided access to the DRF pit and as well providing a lamp passage for the cartridge magazine. The access to the DRF has been blocked up.

The DRF position is circular with a rectangular trench to the rear. It is in fair condition although badly cracked and damaged. The interior has rubble and other material in it. There is no evidence of the mounting for the DRF or associated communication equipment.

There is some archaeological potential for the bottom of the pit since the removal of the fill may reveal where the DRF was located and evidence of how the position communicated with the gun and other positions.

### **3.2.6 Right (South) DRF and passage**

This passage provided access to the DRF pit and also provided a lamp passage for the shell magazine. The access to the DRF has been blocked up; and a new passage and entrance to the shell magazine cuts through this passage.

The DRF position is circular with a rectangular trench to the rear. It seems to be slightly smaller than the northern DRF, and is in fair condition although badly cracked and damaged. There is evidence of the mounting for the DRF and/or associated communication equipment in the form of rusted cables.

There is some archaeological potential for the pit in understanding the nature of the cable running into it, and whether it was for communication or some other purpose.

### **3.2.7 New passage to shell magazine**

The passage from the shell magazine to the pump chamber is of different construction, being concrete rather than brick, and is considered on stratigraphic grounds to be newer and added to the original design – perhaps to facilitate access for the heavy shells to the gun pit.

### **3.2.8 Shell magazine**

The shell magazine is located on the southern side of the main passage and is accessed by a passage on its western end, as well as by the new passage. Both the DRF passage and the passage on the western end contain niches for lamps. The lamps would have been inserted from outside the magazine into glassed niches so there was no likelihood of a spark from the lamps entering the magazine.

There is evidence of shell racks on the floor and a rail for a crane in the roof.

### **3.2.9 Cartridge magazine**

The cartridge magazine is located on the northern side of the main passage and is accessed by a passage on its western end as well as by the passage to the DRF. Both passages contain niches for lamps. The lamps would have been inserted from outside the magazine into glassed niches so there was no change of a spark from the lamps entering the magazine.

There is evidence of racks for cartridge storage in the floor.

### **3.2.10 Casemate**

The casemate area is the entrance to the gun pit and is where materials (particularly ammunition) could be unloaded undercover. There are two rooms off the Main Passage, both of which have windows onto the entry ramp. The northern room has a concrete footing while the southern room has concrete mounting for machinery as well as a rusted and collapsed I beam which would have been used for a crane – presumably to lift the shells and help transport them into the magazine.

(Steinbeck notes that the radar station had a backup generator that could have been mounted on one of these footings but offers no evidence that this was so.)

### **3.2.11 Entry ramp**

The entry ramp provides access for a wagon or motor vehicle to the magazines. There appear to be two phases of construction in the walls of the ramp. It is possible that the ramp was altered to accommodate motor vehicles.

### **3.2.12 Summary: 8 inch Breech Loading gun on a hydro-pneumatic carriage emplacement**

The concrete and brick elements of the gun emplacement are complete and in relatively good condition. The gun and hydro-pneumatic carriage and the DRFs, however, are not present and this clearly diminishes the ability of the mounting to be interpreted.

It is possible, however, to use the surviving fabric to at least demonstrate some aspects of how the original gun emplacement would have worked.

There appear to be no other structures in this area relating to the 1890s gun emplacement; so there is limited archaeological potential for remains relating to the period of occupation. However, the two DRF positions and the pit in the centre of the gun pit have some archaeological potential to contain information relating to the working of the gun's position.

## **3.3 Observation post**

Access to the observation post was limited due the lack of keys and for safety issues as some steel ladders had corroded to the point of collapse.

The building is a large concrete structure. There is little evidence on the exterior fabric of the various changes to the building. However, it is clear – on the north western façade (the rear) – that other structures were attached to the building, and there is some evidence on the roof of the mounting for the aerial.

The Observation post consists of the following features or areas within the building:

- Fortress Observation Post/ShD Radar Installation;
- Fort Wallace Battery Observation Post;
- Port War Signal Station; and
- The Park Battery Observation Post and Searchlight Control.

### **3.3.1 Fortress observation post/ShD radar installation**

The area was not accessible. It should be noted that aerial imagery shows that there are remains of the aerial installation on the roof of this section.

### **3.3.2 Fort Wallace battery observation post**

The only remains in this area are concrete plinths on which the DRFs were located.

### **3.3.3 Port war signal station**

The interior of the structure contained no evidence of its function.

### **3.3.4 The Park battery observation post (BOP)**

The Park BOP is partially flooded and contains only a concrete plinth for the DRF. The Searchlight Directing Station above and behind the post is simply a concrete shell.

(Steinbeck claims that there are mounting bolts in the floor; presumably he saw this floor when it was not flooded.)

### **3.3.5 Summary: Observation Post**

The observation post is basically a concrete shell with little evidence of the complex array of equipment once installed in the building.

## **3.4 Above Ground DRF Station**

This is a concrete structure with some form of iron roof/upper structure located on the northern edge of the site overlooking King Edward Park. The building is basically square in shape with a projecting semi-circular front. The interior has a raised concrete floor.

There seems to be little evidence of how this structure relates to anything. On the basis of its concrete and iron structure, this building dates to World War II; however, its view to the east is masked by the observation post, and then further to the west by the ground surface. Therefore, the building's main field of view is to the north and north-east.



Functionally, this structure looks like an observation post and, clearly, it would only serve a battery in King Edward Park firing to the north and north-east. The structure, however, lacks any equipment that would confirm its function.

(Steinbeck asserts that this building related to the disappearing gun emplacement; however, the evidence for this and his claim that every disappearing gun has “two of these structures” is not provided.)

Clearly, it is important to identify what this structure is and, consequently, identify its heritage significance as the building is deteriorating and, if of high heritage significance, may need conservation works.

### **3.5 Various Concrete Slabs**

There are a number of concrete slabs visible on the current aerial image and on the ground, and clearly some more were visible in 1984 as they are drawn on the site plan in the CMP (Browne 1984 Figure – Location Plan).

There is no doubt that these relate to the World War II use of the site as it is known that a number of ancillary buildings were erected (for example, the ShD radar was planned to be installed with a “small engine house” to supply power). Undoubtedly the concrete slabs relate to these buildings which were mostly used for accommodation.

The concrete slabs have a limited archaeological potential in that their fabric, once cleared, may tell the size of the building and something of its function. However, that is all that can be hoped from archaeology. More historical research may yield a wartime plan of the site which would further aid in its interpretation.

### **3.6 Archaeological Potential**

Archaeological Potential is defined by the NSW Heritage Office Archaeological Assessment Guidelines as ‘the degree of physical evidence present on an archaeological site’ (2009). This section discusses the potential of the study area to contain sub-surface archaeological evidence. The assessment of the potential involved consideration of the historically known activities in the project study area that are likely to have resulted in the deposition of archaeological remains. This was followed by a consideration of the historically known activities in the project study area that are likely to have altered or removed archaeological remains.

The initial period of activity of the site was the construction of the gun emplacements, underground magazine, range finders and Master Gunners Cottage. The gun emplacements were constructed of concrete and therefore resilient in the face of later construction.

The use of the site for the Port War Signal Station from 1916 created an overlay of buildings that added onto the existing structures of the site.

The construction of the Observation Posts in 1939 may have removed the original lookout for the Port War Signal Station and the above ground DRF Station seems to be

constructed on the site of the Wireless office. The war time accommodation was constructed over the Battery site and would have had a low impact.

It seems unlikely given the nature of military discipline (and the closeness of the cliffs) that a substantial archaeological deposit would have built up on the site relating to those living on it. Rubbish would have been efficiently disposed of either by waste disposal or tipping off the cliffs into the sea. Thus, there is likely to be a low level of archaeological evidence from service personnel across the site which would be from accidental loss of items.

Archaeological potential can be subdivided into the following categories, based on the likely occurrence of archaeological material:

High Potential	areas with known archaeological remains;
Medium Potential	areas that may have archaeological remains based on other lines of evidence such as maps or documents;
Low Potential	areas that are likely to have minimal archaeological remains based on analysis of known or likely disturbance;
No Potential	areas where it is known that archaeological remains will not occur.

It is reasonable to suggest based on historical research, reviewing of mapping data and site inspection that much of the study area is likely to have archaeological remains in the form of underground and surface remains of abandoned works and relics. Therefore, much of the project study area can be mapped as being of high archaeological potential.

### 3.6.1 Archaeological Research Potential

“Archaeological research potential is the ability of archaeological evidence, through analysis and interpretation, to provide information about a site that could not be derived from any other source and which contributes to the archaeological significance of that site and its ‘relics’” (Heritage Branch, Department of Planning 2009:11).

Archaeological potential identifies whether archaeological remains might be present on the site.

Archaeological research potential assesses whether archaeological remains are significant.

This is a critical part of any archaeological assessment, as archaeological management is based on significance rather than simply the presence of archaeological remains.

The key elements of assessing archaeological research potential would seem to be:

- What ability does the archaeological evidence at a place or landscape (or potentially at a place or landscape) have to provide information about the past?
- How could this be done using archaeological methods (both excavation and post-excavation analysis)?
- How important is that information in the context of historical research into the past?

There is not really an overarching research agenda for fortifications in Australia that can be readily tapped into to generate relevant research questions. Thinking about the kind of research questions that might be asked about the Shepherds Hill site such as how the HP-gun mount functioned, details about the radar installation, what life was like for those staffing the site, none necessarily require archaeological evidence to answer. There are maps and plans that show the location of items and details of their construction, there are technical specifications and details as well as drill books and procedures available that cover how items such as the gun and the various OP's would have functioned.

Militarily the key event for the Newcastle Defences was the submarine attack of the 8th June 1942. The role Shepherds Hill played in these events is not clear (in particular the role of the radar) but it is difficult to see how an archaeological investigation would answer questions around these events.

To conclude there is an abundance of historical evidence relating to the site and an absence of archaeological fabric that could help to answer relevant research questions.

The archaeological remains however retain a strong ability to demonstrate key elements of the sites history in particular, the strategic location of Shepherd Hill with its strategic views of the coastline, the locations of key elements of the site and the spatial relationships within elements and between them.

## 4 COMPARATIVE ANALYSIS

This section briefly outlines some comparable sites known by the author with the aim of placing the remaining fabric at Shepherds Hill into some form of context.

### 4.1 Hydro-pneumatic gun emplacements

The best preserved gun battery of this type is at Taiaroa Head in Otago, New Zealand, where a complete Armstrong 6 inch rifled breach loading gun and hydro-pneumatic carriage are preserved.

Fort Jervois, at Lyttelton Harbour, Christchurch, contains the remains of both an 8 inch and a 6 inch hydro-pneumatic mounts, but it is not clear how complete the mountings are.

Fort Queenscliff contains one complete gun and mounting, but the actual mounting was an 8 inch mounting relocated from the rarely visited South Channel Fort rather than the mounting for 9.2 inch gun that was originally installed at Fort Queenscliff; as such, although the mounting looks authentic to some, there has to be some question about the integrity of the mounting.

South Channel Fort, among the other sites, mounted two 8 inch guns on hydro-pneumatic carriages were installed and one hydro-pneumatic carriage remains in situ.

At Fort Nepean the remains of a hydro-pneumatic carriage for a 6 inch gun were excavated (against the author's advice).

Thus, there are at least seven fairly complete hydro-pneumatic carriages "in situ" across Australia and New Zealand. There are numerous emplacement remains, the nearest to Shepherds Hill being the one at Fort Scratchley.

This very brief overview helps place the Shepherds Hill gun emplacement into some form of context. In terms of demonstrating the functions and working of a disappearing gun, it is difficult to overlook the importance of the physical remains of the mounting in demonstrating to the public how it all worked.

Without such evidence there are only the remains of the gun pit and the magazines, and there are remains of similar gun emplacements throughout Australia and New Zealand. It is hard to differentiate between the fabric of them all as they all demonstrate the workings of a gun battery.

### 4.2 Observation Posts

Clearly there are many observation posts of a similar design as every battery required one, and there were usually several observation posts built separately from the batteries to serve as FOPs as well.

As far as the author can recall, there is only one that may still serve a similar purpose and contain some original equipment, and this is the range control building at Jervis Bay within Commonwealth land and current/serving defence purposes. The remaining sites are like Shepherds Hill and largely devoid of equipment. Thus, there is nothing unique about the fabric at Shepherds Hill.



Shepherds Hill and the fortress observation, and the Sydney Fire Command Post at Dover Heights (now adapted for use as a residence) share a similar association with the development of radar, although in both cases there is no fabric remaining that can demonstrate the location or workings of radar.

#### **4.2.1 Conclusion**

The built fabric of Shepherds Hill – both the gun emplacement and the observation post can be seen as entirely typical of their time and in their current form are representative of such structures after abandonment.

## 5 ASSESSMENT OF SIGNIFICANCE

The main body of the report will cover the significance of the site in more detail. In this report some comments will be made on how further research and assessment for the current project might add to the significance assessment of the site.

The NSW Heritage Council has adapted specific criteria for heritage assessment, which have been gazetted pursuant to the Heritage Act 1977 (NSW). The seven criteria upon which the following significance assessment is based are outlined below:

- Criterion (a) an item is important in the course, or pattern, of NSW's cultural or natural history;
- Criterion (b) an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history;
- Criterion (c) an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW;
- Criterion (d) an item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons;
- Criterion (e) an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history;
- Criterion (f) an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history; and
- Criterion (g) an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places or cultural or natural environments.

Comments will be made under each of the criterion.

### 5.1 Heritage Significance Assessment

#### 5.1.1 Criterion A

*An item is important in the course, or pattern, of NSW's cultural or natural history.*

The site's importance lies in its key role on the defensive schemes for Newcastle, initially as a battery position and then as an observation post for the Newcastle defences, in which capacity some of the earliest radar sets available in Australia were deployed.

#### 5.1.2 Criterion B

*An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history.*

The site has a fleeting association with Lord Kitchener who visited it while inspecting military installation on behalf of the Commonwealth Government.

### 5.1.3 Criterion C

*An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW.*

While the site would meet the requirement under this condition in respect of aesthetics as it clearly is a landmark location, it has to be questioned whether there is sufficient fabric on site to demonstrate the development of radar in Australia (undoubtedly a creative and technical milestone for Australia). On balance, the fabric of the observation post would not be able to demonstrate how the radar system worked and, therefore, would fail to meet this part of the criterion.

### 5.1.4 Criterion D

*An item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons.*

Clearly the various veterans associations – some of whom have erected a plaque on the Observation Building – have special associations with Shepherds Hill.

### 5.1.5 Criterion E

*An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history.*

The potential of the Shepherds Hill site to yield information that will contribute to an understanding of NSW's cultural history is limited by the existing fabric. There are areas where archaeological work may increase our knowledge about the site, but these are relatively minor points in the broader context of NSW's history.

### 5.1.6 Criterion F

*An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history.*

The built fabric of Shepherds Hill – both the gun emplacement and the observation post – are entirely typical of the structures built to serve their function at the time and in their current form are representative of such structures after abandonment. As discussed in Section 4 the remains at Shepherds Hill although uncommon are not rare.

### 5.1.7 Criterion G

*An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places or cultural or natural environments.*

The fabric of Shepherds Hill lacks integrity due the removal of so much of the key workings of both the gun emplacement and of the observation post; therefore, it would

have a limited potential to demonstrate the principal characteristics of either a hydro-pneumatic gun carriage or of the observation post.

However, as Steinbeck notes, visually the Shepherds Hill site provides a vantage point to view almost all the aspects of the role of defending Newcastle. It is possible to easily pick out the early line of defences for which the gun emplacement was constructed. Key sites from the later defences can also be seen, as well as the key locations for the Japanese attack.

As a consequence of this, the Shepherds Hill site can be seen as important in demonstrating the principal characteristics for the defences of the Port of Newcastle and of the Japanese attack on the Port.

Thus, Shepherds Hill meets this criterion at a State level as these were events that had State and National consequences.



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## 8 MAPS, PLANS AND IMAGES



Figure 1: General location of the study area



Figure 2: Shepherds Hill located on a 1910 survey plan of Newcastle



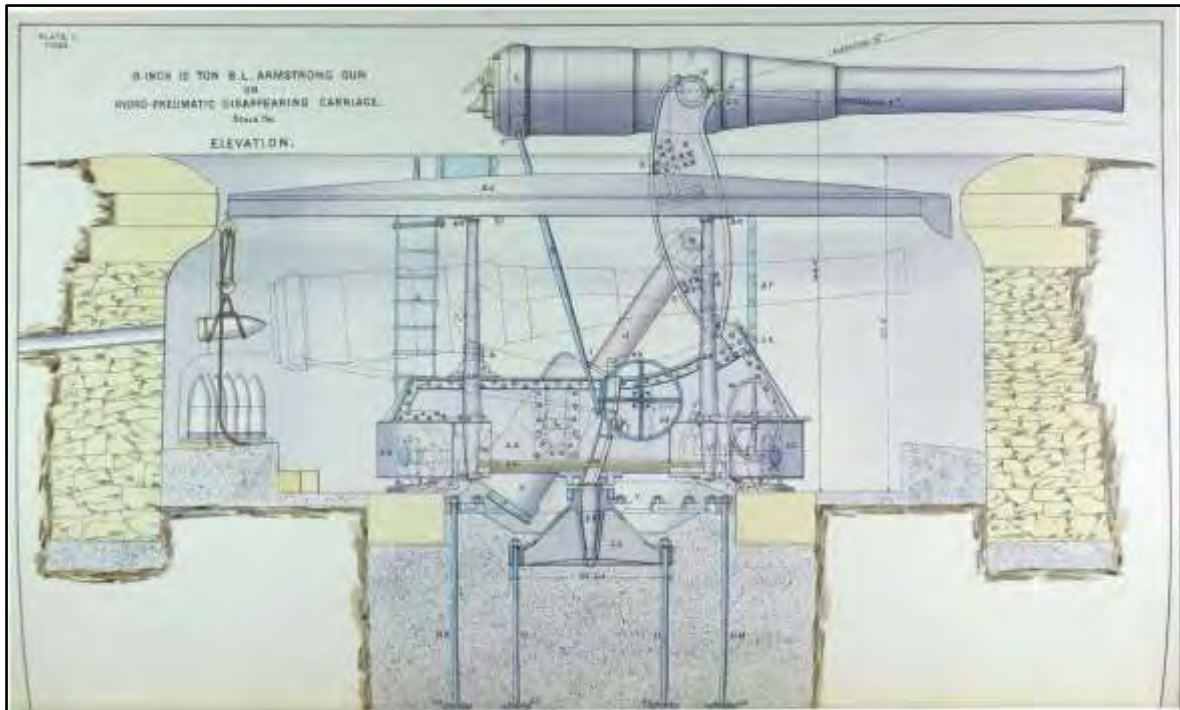


Figure 3: Diagram of an 8 inch gun on a hydro-pneumatic carriage (from the Manual)



Figure 4: Preserved and restored BL 6-inch Mk V gun on hydro-pneumatic carriage, Tairaroa Head, Otago, New Zealand



Figure 5: Depression Range Finder restored on concrete mounting Taiaroa Head, Otago, New Zealand (note the datum figures on the mounting for quick reference)



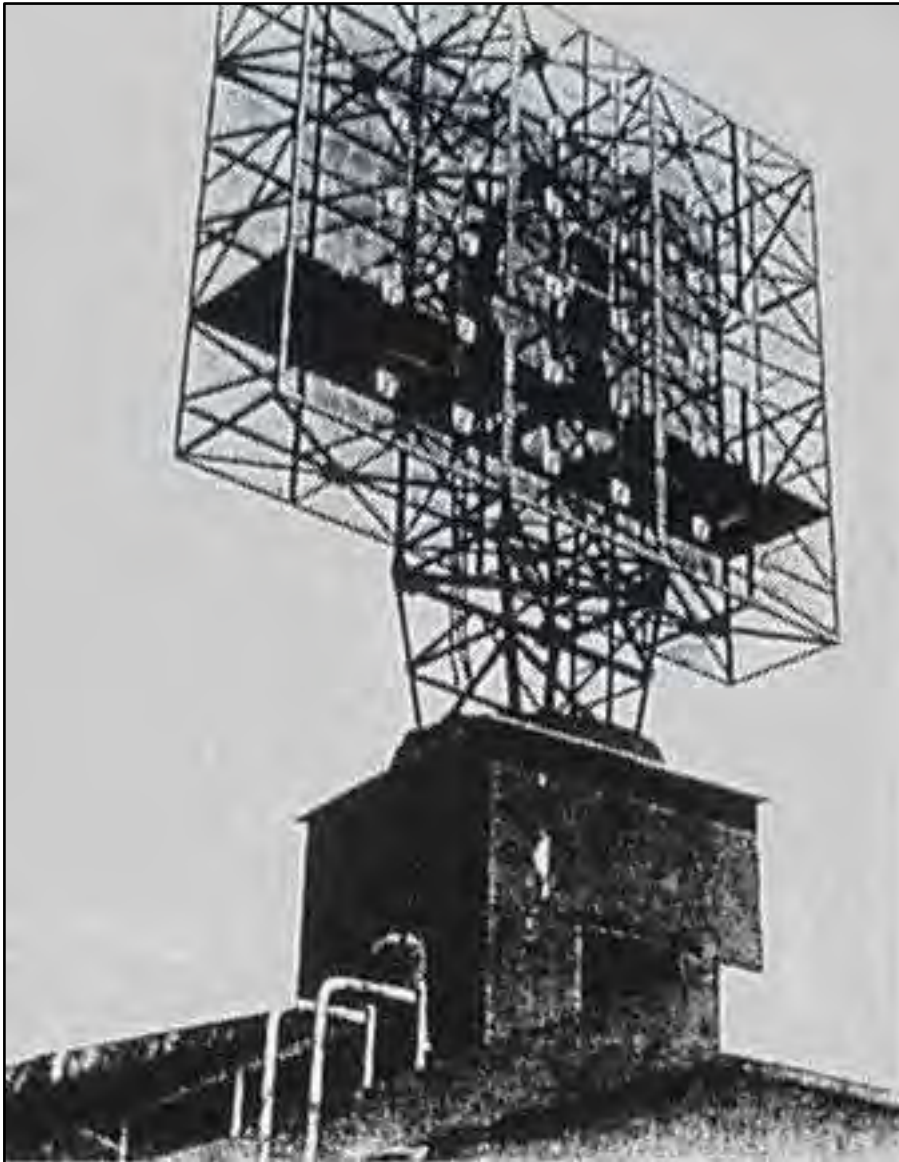


Figure 6: Supposedly a photo of the antenna on Shepherds Hill; the antenna looks correct but the location is not readily identifiable as Shepherds Hill (source <http://www.ozatwar.com/raaf/shepherdshillradar.htm> accessed June 2016)



Figure 7: Gun emplacement features overlain on aerial image of the site



Figure 8: Features of the observation post





Figure 9: Other site features



Figure 10: Horizon and gun ranges from Shepherd Hill and Fort Scratchley



Figure 11: Looking NNE across the site showing the south DRF station, the gun emplacement and the observation post



Figure 12: Looking east across the site showing the entrance to the magazines and the above ground DRF Station





## 12.8 Appendix H - Structural Engineer's Report, Mott MacDonald

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City Plan Services  
Level 1, 364 Kent St,  
SYDNEY NSW 2000

Attn: Anna McLaurin  
Email: annam@cityplan.com.au

14<sup>th</sup> December 2016

Dear Anna,

**RE: SHEPHERDS HILL DEFENCE GROUP: STRUCTURAL REPORT**

We report the findings from our recent site inspections.

**1.0 DETAILS OF INSPECTION**

- 1.1 Date of inspection:** 17<sup>th</sup> May and 8<sup>th</sup> June 2016
- 1.2 Inspected by:** Alex Been, senior structural engineer for Mott MacDonald
- 1.3 Purpose:** To provide structural engineering input into the conservation management plan for the site, specifically reporting on the condition of structural fabric, recommended actions and maintenance, and discussion of feasible uses for the items contained within the site.
- 1.4 Revision** Rev B: Final 14.12.2016

**2.0 CONDITION SUMMARY**

**2.1 COTTAGE**

The structural fabric of the cottage is in good condition with few significant defects. The cottage is currently in a vulnerable state with missing sections of roof that is likely to cause rapid deterioration of the structural framing if not rectified as a matter of urgency. No structural remedial works are specified in this report. Some alteration or replacement of individual framing members may be required to enable installation of new roof cladding however the extent of such works should be determined by the contractor during site works.

**2.2 OBSERVATION POST**

The observation post is a robust reinforced concrete structure, but is in generally poor condition. Erosion of earth on the southern side of the building is undermining the structure. The lowest level of the building is subjected to frequent flooding during rainfall. It appears that the internal and external drainage systems are inadequate or blocked.

The majority of structural elements throughout the building are subject to active deterioration through corrosion of steel reinforcement and spalling concrete. Several elements are nearing structural failure and are at risk of collapse. Refer to the condition and repair schedule for further details. Major intervention is required to prevent ongoing, rapid deterioration of the building.

### **2.3 GUN EMPLACEMENT AND ASSOCIATED TUNNELS**

The gun emplacement is a robust reinforced concrete and (most likely) masonry structure. Structural elements often contain partially embedded structural steel sections. Defects around the gun emplacement are typically minor, limited to surface corrosion of exposed structural steel elements and small areas of reinforcement corrosion and concrete spalling. The gun emplacement itself appears to have a functioning drainage system, however this system was not observed on site.

The adjacent system of tunnels and rooms are constructed of brick masonry and reinforced concrete with some embedded structural steel sections. Typical defects are similar to the gun emplacement, generally limited to surface corrosion of exposed structural steel and localised areas of reinforcement corrosion and concrete spalling. The lowest areas of the tunnel system appear to be prone to flooding. There is a significant build-up of rubbish and debris in these areas that may be causing a blockage in the drainage system.

The masonry retaining walls outside the tunnel entrance (forming the road cut) remain in serviceable condition with only minor defects.

### **2.4 SEARCHLIGHT BUNKER**

The searchlight bunker is a generally robust reinforced concrete structure with the remains of a structural steel roof frame supported on the concrete perimeter walls. The concrete elements of the bunker are in reasonable condition with typically minor defects. The structural steel roof frame has severely corroded and suffered significant section loss in critical points in the frame. The frame is partially detached from the concrete walls, and is likely to further deteriorate leading to eventual collapse without some intervention.

### **2.5 DRF STATIONS**

The pits are of robust concrete construction. The pit walls have significant defects (large cracks, missing capping) but due to their construction and form are reasonably stable. The bases of the pits contain rubble that appears to be the remains of capping stones.

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## **2.6 ADJACENT GUN EMPLACEMENT**

The gun emplacement is likely to have been constructed in a mix of masonry and reinforced concrete elements. The roof of the gun emplacement is supported along its outer edge by an embedded structural steel beam. The construction is robust and defects are typically minor, with the exception of concrete spalling in the soffit of the roof and beam which presents a hazard for public access. The structure is likely to be actively deteriorating, however the process is likely to be slow and therefore the structure will remain in a stable state for many years without significant intervention. Some make-safe works are required to reduce the risk to the public. The tunnels behind this gun emplacement were not inspected.



### 3.0 OUTLINE SCHEDULE OF REMEDIAL WORKS

#### 3.1 COTTAGE

Item No.	Location	Description	Condition	Damage Category	Remedial Actions	Priority
1	Verandah	Timber posts	Several timber post bases have decayed or otherwise failed.	Moderate	Replace/ strengthen post bases	Medium
2	External walls	Timber wall framing	Minor decay noted in exposed framing. Termite damage noted in lining boards.	Minor	Augment/ replace decayed or termite damaged framing as needed to secure cladding.	Low
3	All areas	Ceiling boards/ linings	Falling damp noted in ceiling. Some minor damage to roof farming members may have occurred.	Presumed minor	None.	Low
4	Southern roof	Cladding	Cladding missing along southern side of building	NA	Install new roof cladding	High
5	All areas	Masonry walls	Some rising and penetrating damp noted.	Minor	Check for damp proof course, check roof cladding for leaks	Medium

### 3.2 OBSERVATION POST

Item No.	Location	Description	Condition	Damage Category	Remedial Actions	Priority
1	South external elevation	Wall	Vertical and horizontal cracks, spalling concrete	Moderate	Remove loose concrete. Inject cracks. Monitor condition.	Medium
2	South external elevation	Ground slab	Undermining of slab by soil erosion	Moderate	Adjust drainage system to disperse water away from edge of building.	High
3	West external elevation	Wall	Spalling concrete, exposed corroding reinforcement, corroding fitments. Fine cracking.	Moderate	Remove loose concrete. Patch repair.	Medium
4	North external elevation	Wall	Spalling render and concrete. Exposed corroding reinforcement. Corroding fitments. Fine cracking	Minor	Remove loose render and concrete.	Low
5	North external elevation	Base of wall	Trees growing from base of wall	Minor	Remove trees and roots.	Medium
6	East external elevation	Wall	Vertical and horizontal cracks, spalling concrete, exposed corroding reinforcement	Medium	Remove loose concrete. Inject cracks. Monitor condition.	Medium
7	All internal areas	Floor	Concrete debris and rubbish	Minor	Remove debris.	Medium
8	Level 1 Entry	Roof	Severe spalling and reinforcement corrosion.	Severe	Remove roof slab.	High
9	Level 1 Room 9	Perimeter beam	Severe concrete spalling and reinforcement corrosion	Critical	Install new support structure to ground. Remove loose concrete. Monitor for deterioration and adjust support requirements as necessary.	High
10	Level 2 Room 8	Perimeter beam	Severe concrete spalling and reinforcement corrosion	Critical	Install new support structure to ground. Remove loose concrete. Monitor for deterioration and adjust support requirements	High

Item No.	Location	Description	Condition	Damage Category	Remedial Actions	Priority
					as necessary.	
11	Level 2 Room 8	Slotted opening	Corroded security bars. Augmented support system.	Moderate	Consider replacement.	Low
12	Level 3 Room 2	Walls and roof soffit	Spalling render and concrete	Minor	Remove loose and drummy render. Remove loose concrete.	Low
13	Level 3 Room 2	Corbel and bracket	Steel bracket corroded	Medium	Monitor for deterioration and remove/ replace before failure.	Medium
14	Level 3 Room 2	Western window grilles	Corroded security grille	Medium	Consider replacement	Low
15	Level 3 Room 6	Column	Concrete spalling, reinforcement corrosion, cracked column	Critical.	De-load column. Patch repair.	High
16	Level 3 Room 6	Roof soffit	Concrete spalling, reinforcement corrosion.	Severe	Remove loose concrete. Patch repair.	High
17	Level 3 Room 6	Walls	Concrete spalling, reinforcement corrosion. Cracking and loose concrete.	Severe	Remove loose concrete. Patch repair.	High
18	Level 3 Room 6	Lintel over external door	Corroded and deflecting steel lintel.	Severe	Replace lintel.	High
19	Level 3 Room 5	Ladder to Room 10	Corroded. Rungs and stringers missing.	Severe.	Do not use. Consider removal or replacement.	Medium
20	Level 3 Room 5	Roof soffit	Concrete spalling, reinforcement corrosion.	Severe	Remove loose concrete. Patch repair.	High
21	Level 3 Room 4	Roof soffit	Spalling concrete. Exposed corroded reinforcement.	Severe	Remove loose concrete. Patch repair.	Medium
22	Level 3 Room 4	Corbel and bracket	Corroded steel bracket. Cracked corbel, spalling concrete, exposed reinforcement.	Severe.	Monitor for deterioration and remove/ replace before failure.	Low
23	Level 3 Room 4	West window	Spalling concrete. Exposed corroded reinforcement. Minor cracking below window.	Moderate	Patch repair. Monitor crack for deterioration.	Medium
24	Level 3 Room 4	West window	Corroded security grille.	Moderate	Replace.	Medium

Item No.	Location	Description	Condition	Damage Category	Remedial Actions	Priority
25	Level 3 Room 7	Plinths	Minor to severe concrete damage, exposed reinforcement.	Moderate	Remove loose concrete. Patch repair.	Low
26	Level 3 Room 7	Walls and roof soffit.	Spalling concrete. Exposed corroded reinforcement. Cracking common.	Critical	Install new support structure to ground. Remove loose concrete. Monitor for deterioration and adjust support requirements as necessary.	High
27	Level 3 Room 7	Slotted opening	Corroded security bars. Augmented support system.	Moderate	Consider replacement.	Low
28	Level 4 Room 1	Doorway to Room 2	Spalling concrete. Exposed corroded reinforcement.	Moderate	Remove loose concrete. Patch repair.	Medium
29	Level 4 Room 3	Roof slab and perimeter beam	Spalling concrete. Exposed corroded reinforcement.	Critical.	Install new support structure to ground. Remove loose concrete. Monitor for deterioration and adjust support requirements as necessary.	High
30	Level 4 Room 3	Walls	Spalling concrete. Exposed corroded reinforcement.	Moderate	Remove loose concrete. Patch repair.	Medium
31	Level 4 Room 3	Slotted opening	Corroded security bars. Augmented support system.	Moderate	Consider replacement.	Low
32	Level 4 Room 10	Roof soffit	Spalling concrete. Exposed corroded reinforcement.	Moderate	Remove loose concrete. Patch repair.	Medium
33	Level 4 Room 10	Structural steel framing	General surface corrosion of column, beams, brackets and connections. Column possible detached at base.	Severe	Determine purpose of framing. Replace column base connection. Monitor framing for deterioration. Remove prior to failure. Consider immediate removal/ replacement of framing.	High
34	Level 4 Room 10	Walls	Spalling concrete. Exposed corroded	Moderate	Remove loose concrete. Patch repair.	Medium



Item No.	Location	Description	Condition	Damage Category	Remedial Actions	Priority
			reinforcement.			
	Level 4 Room 10	Roof access gate	Corroded frame and bars	Moderate	Remove frame. Apply new protective coating to gate.	Low

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### 3.3 GUN EMPLACEMENT AND ASSOCIATED TUNNELS

Item No.	Location	Description	Condition	Damage Category	Remedial Actions	Priority
1	Entry Ramp	North wing walls	Vertical cracks at joint with main ramp walls, spalling concrete	Minor	Monitor for deterioration and overturning. Brace or strengthen prior to collapse	Low
2	Entry Ramp	Ramp walls	General minor cracking and spalling concrete	Minor	Check for loose concrete and remove.	Medium
3	Entry Ramp	Ramp walls	Loosely laid stone capping	Minor	Check capping stones for stability. Re-bed or remove stones at risk of falling off wall.	Low
4	Entry Ramp	Tunnel entry external wall	Weathered stone lintels, spalling render	Moderate	Remove loose render. Check stability and robustness of stone lintels. Strengthen or replace lintels as required.	Medium
5	Casemate	Central structural steel beam	Partially collapsed	Severe	Remove from position and store	High
6	Casemate	Roof soffit	Drummy and loose render, falling damp	Moderate	Remove loose render. Improve drainage above roof.	High
7	All areas	Floor	Debris, trip hazards, corroding steel fitments. Damp.	Moderate	Remove debris. Consider trip hazards in relation to level of public access. Improve drainage above and around the tunnel	Low

Item No.	Location	Description	Condition	Damage Category	Remedial Actions	Priority
					complex.	
8	Main passage	Roof soffit	Spalling render. Corroding exposed steel beams	Moderate	Remove loose and drummy render. Monitor beams for deterioration and replace before failure.	High
9	Main passage	Skylight/ vent hatch	Hatch frame severely corroded. Perimeter brick edging broken.	Severe	Monitor for deterioration. Remove and replace or strengthen hatch frame before failure.	Medium
10	Casemate	Walls	Corroding fitments.	Minor	Consider removal of fitments to prevent masonry cracking.	Low
11	Cartridge Store passage	Door frame	Corroded frame	Severe	Consider application of new protective coating	Low
12	Cartridge Store passage	Roof soffit	Minor concrete spalling	Minor	Patch repair	Medium
13	Cartridge Store passage	Cartridge store window and door openings	Corroded lintel beams, spalling brickwork	Severe	Monitor for deterioration and replace before failure	Medium
14	Cartridge Store	Walls	Rising damp, brick fretting	Minor	Improve drainage above and around the tunnel complex.	
15	Cartridge Store	Roof soffit	Spalling render. Corroding exposed steel beams	Minor	Remove loose and drummy render. Monitor beams for deterioration and replace before failure.	High
16	Shell Store Passage	Roof soffit	Spalling render. Corroding exposed steel beams	Moderate	Remove loose and drummy render. Monitor beams for deterioration and replace before failure.	High
17	Shell Store Passage	Door frame	Corroded frame	Moderate	Consider application of new protective coating	Low

Item No.	Location	Description	Condition	Damage Category	Remedial Actions	Priority
18	Shell Store Passage	Cartridge store window and door openings	Corroded lintel beams, spalling brickwork	Severe	Monitor for deterioration and replace before failure	Medium
19	Shell Store	Hanging beam	Steel beam and connections corroded.	Moderate	Monitor for deterioration and remove before failure	Low
20	Right DRF Station Passage	Floor waste point	Drainage channels and sump blocked with debris	Moderate	Clear and check drains.	High
21	Right DRF Station Passage	DRF Station hatch	Corroded steel hatch and frame	Severe	Remove or strengthen. Remove rubble above to reduce load on hatch.	High
22	Left DRF Station Passage	Door frame	Corroded beam	Severe	Remove flaking corrosion. Monitor for deterioration and remove before failure	High
23	Left DRF Station Passage	DRF Station hatch	Concrete infill below hatch. Hatch corroded. Open to sky.	Moderate	Install new cover over hatch to prevent water ingress. Monitor hatch and infill for deterioration and remove before failure	High
24	Pump Chamber Passage	Roof soffit	Spalling render. Corroding exposed steel beams	Moderate	Remove loose and drummy render. Monitor beams for deterioration and replace before failure.	Low
25	Pump Chamber Passage	Storage Racks	Corroded steel racks and fitments	Moderate	Monitor for deterioration and remove before failure	Low
26	Gun Pit perimeter passage	Roof soffit	Corroded bottom flanges of exposed steel beams.	Moderate	Monitor for deterioration and replace before failure.	Low
27	Gun Pit perimeter passage	Hanging beam	Steel beam and connections corroded.	Moderate	Monitor for deterioration and remove before failure	Low
28	Gun Pit	Edge beam	Corroding hanging fitments	Minor	Monitor for deterioration and remove before failure	Low
29	Gun Pit	Perimeter walls	Vertical, diagonal and horizontal cracks in	Minor	Monitor for deterioration. Remove loose	Low

Item No.	Location	Description	Condition	Damage Category	Remedial Actions	Priority
			concrete		concrete and patch as necessary.	
30	Gun Pit	Floor	Drainage system unknown	Minor	Check for drainage system and clear drain.	High

### 3.4 SEARCHLIGHT BUNKER

Item No.	Location	Description	Condition	Damage Category	Remedial Actions	Priority
1	Perimeter walls	External elevations	Cracked and spalling render and concrete	Moderate	Remove loose and drummy render. Monitor ongoing deterioration. Address any instability as it occurs.	Low
2	Perimeter walls	Internal elevations	Cracked and spalling render and concrete. Corroding steel fitments.	Moderate	Remove loose and drummy render. Monitor ongoing deterioration. Address any instability as it occurs.	Low
3	Roof frame	Perimeter beam and legs	Corrosion of entire surface. Severe section loss in locations	Severe	Strengthen connection between steel frame and concrete walls. Augment steel frame where severe section loss has occurred.	High
4	Roof frame	Steel purlins	Corrosion of entire surface. Severe section loss in locations	Severe	Monitor for deterioration. Loose connections to the concrete walls or steel perimeter beam to be re-established or the purlin removed.	Moderate
5	Internal area	Floor slab	Pitting, wear and spalling concrete and some staining from corrosion of roof members	Moderate	Monitor for deterioration. Address any instability as it occurs.	Low



### 3.5 DRF STATIONS

Item No.	Location	Description	Condition	Damage Category	Remedial Actions	Priority
1	Right DRF Station	Perimeter walls	Concrete cracked and spalling. Corroded fitments.	Moderate	Monitor for deterioration. Address any instability as it occurs.	Low
2	Right DRF Station	Capping stones	Capping stones fallen into pit	NA	Consider replacement of capping stones in original location.	Low
3	Right DRF Station	Pit base	Dirt and rubbish in base. Hatch and drainage obscured	Severe	Clear base of debris. Expose drain and maintain. Cover or augment hatch.	High
4	Left DRF Station	Perimeter walls	Concrete cracked and spalling. Corroded fitments. Small section collapsed.	Severe	Infill collapse with concrete. Monitor for deterioration. Address any instability as it occurs.	high
5	Left DRF Station	Capping stones	Capping stones fallen into pit	NA	Consider replacement of capping stones in original location.	Low
6	Left DRF Station	Pit base	Vegetation in base. Hatch and drainage obscured. Partial concrete infill	Severe	Clear base of debris. Expose drain and maintain.	High

### 3.6 ADJACENT GUN EMPLACEMENT

Item No.	Location	Description	Condition	Damage Category	Remedial Actions	Priority
1	Roof	Outer edge beam	Spalling concrete encasement. Exposed steel section corroded.	Severe	Remove loose concrete. Monitor for ongoing deterioration.	High
2	Roof	Cantilevered slab soffit	Spalling concrete, exposed corroded reinforcement	Moderate	Remove loose concrete. Patch repair exposed reinforcement.	High

Item No.	Location	Description	Condition	Damage Category	Remedial Actions	Priority
3	Roof	Main roof soffit	Fine cracking	Minor	Monitor for deterioration. Remove loose concrete.	Low
4	Roof	Top surface	Ribbed surface filled with earth. Vegetation growth. Some water ponding.	Moderate	Remove vegetation and earth. Expose or create drainage, or consider application of waterproof membrane or similar.	High
5	Roof	Top surface	No edge protection.	NA	Risk of falls-from –height. Consider preventing unauthorised access to roof.	High
6	Walls	Northern corner column	Concrete cracked and spalling.	Moderate	Remove loose concrete. Patch repair any exposed reinforcement.	Medium
7	Walls	Rear curved wall	Fine cracking	Minor	Monitor for deterioration. Remove loose concrete.	Low
8	Walls	Southern corner column	Concrete cracked and spalling.	Moderate	Remove loose concrete. Patch repair any exposed reinforcement.	Medium
9	Walls	Northern external side wall	Fine cracking	Minor	Monitor for deterioration. Remove loose concrete.	Low
10	Walls	Southern external side wall	Cracked concrete.	Modertate	Remove loose concrete. Patch repair exposed reinforcement.	Low
11	Floor	Gun pit	Pit base filled with rubbish. Drainage likely blocked.	Moderate	Remove rubbish. Clear drain if exists. Consider covering pit to prevent build-up of rubbish.	Medium

## **4.0 MAINTENANCE STRATEGY**

Aside from the cottage the assets are extremely vulnerable to ongoing deterioration due to their material construction, existing level of dilapidation and coastal location. It is not expected that remedial works will be carried to such an extent that the structures will be protected against ongoing deterioration. As a result, maintenance and monitoring protocols will be important in order to provide some level of ongoing access to the site and structures.

Monitoring and maintenance should address (but not be limited to):

1. Ensuring clear drainage systems within and beyond all items
2. Removal of loose and drummy render and concrete wherever at risk of falling
3. Engineering inspection of at-risk items (cantilevered roofs, structural elements with severe levels of existing damage) to determine the requirement for additional support, or removal of risk by other methods.
4. Maintenance of existing safety barriers

Monitoring inspections should be carried out by Wollongong City Council staff at regular (minimum bi-yearly) intervals. If items are identified as displaying significant signs of distress or rapid deterioration some additional engineering advice may be required.

## **5.0 FEASIBLE USES OF THE ITEMS**

Alternative uses for the DRF Stations and Searchlight Bunker have not been considered.

### **5.1 COTTAGE**

Upon weatherproofing and general renovation we expect the cottage to be suitable for ongoing use as a residence or for office or retail type occupation. The floor framing does not have the capacity to support loads beyond these occupation types.

### **5.2 OBSERVATION POST**

In its current condition the observation post is not suitable for occupation or indeed public access. Significant structural remediation will be required before public access is possible. Works to enable permanent public access to the observation post is possible. It is not expected that the building will be of sufficient standard to enable permanent occupation.

### **5.3 GUN EMPLACEMENT AND ASSOCIATED TUNNELS**

Upon completion of minor structural rectification and make-safe works the gun emplacement and associated tunnels are likely to be of acceptable condition to allow public access. Due to the layout of the tunnel system it is not expected that permanent

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public access is likely to be appropriate and that access should be restricted to tours or similar. In such cases some areas of the tunnel system such as narrow tunnels and dead-ends may need to be cordoned off. It is not expected that the building will be of sufficient standard to enable permanent occupation.

#### **5.4 ADJACENT GUN EMPLACEMENT**

The gun emplacement remains accessible to the public. There are significant safety risks associated with this structure. Some make-safe works are possible to reduce the risks however we suggest that public access to this structure should be restricted by appropriate fencing and other barriers. The gun emplacement is not suitable for occupation. It is not likely that the associated tunnels are suitable for occupation or public access, though such access may be possible upon structural rectification and other renovation.

We trust that the foregoing is of assistance. Please contact the undersigned for any further information.

Yours faithfully



**Mott MacDonald Australia**

**ALEX BEEN**

**SENIOR STRUCTURAL ENGINEER**

BE, MHERITCONS, MIEAUST





## 12.9 Appendix I - Shepherds Hill Title and Covenant

NP 18A

STAMP DUTY

Crown Instrument not liable to Stamp Duty

or payment of registration fees.

H. K. ROBERTS

Crown Solicitor



## TRANSFER

(INCLUDING EASEMENT/COVENANTS)

REAL PROPERTY ACT, 1900  
(See Instructions for Completion on back of form)

X720667

DESCRIPTION  
OF LAND  
Note (a)TENEMENTS  
PANEL  
Note (b)This panel is to be  
completed for  
transfers by transferorTRANSFEROR  
Note (c)

Note (d)

TRANSFeree  
Note (e)TENANCY  
Note (f)PRIOR  
ENCUMBRANCES  
Note (g)

Note (h)

Note (i)

EXECUTION  
Note (j)

Note (k)

TO BE COMPLETED  
BY LODGING PARTY  
Notes (l) and (m)

OFFICE USE ONLY

LAND being transferred			
Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location	
VOLUME 9767 FOLIO 35	WHOLE	SHEPHERDS HILL, NEWCASTLE	
it is requested that a Notification that the said land has become Crown Land within the meaning of the Crown Lands Act be recorded on the register and upon Land Grant Volume 9767 Folio 35			
Servient Tenement (Land burdened by easement)		Dominant Tenement (Land benefited by easement)	
Torrens Title Reference	Torrens Title Reference	Torrens Title Reference	Torrens Title Reference
THE COMMONWEALTH OF AUSTRALIA c/- Department of Administrative Services, Commonwealth Government Centre, Chifley Square, Sydney N.S.W. 2000			

(the above-named TRANSFEROR) hereby acknowledges receipt of the consideration of \$24,000.00 and transfers an estate in fee simple in the land being transferred above described to the TRANSFeree

HER MAJESTY QUEEN ELIZABETH II as Crown Lands within the meaning of the Crown Lands Consolidation Act 1912 as amended	
STATE OF NSW. 1913	
as joint tenants in common	

subject to the following PRIOR ENCUMBRANCES 1. NIL

2. \_\_\_\_\_

AND the TRANSFEROR:—

(a) GRANTS RESERVES on easement to set out in SCHEDULE ONE hereto

(b) COVENANTS with the TRANSFeree as set out in SCHEDULE TWO hereto

AND the TRANSFeree COVENANTS with the TRANSFEROR as set out in SCHEDULE THREE hereto

DATE OF TRANSFER 19th July 1988

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

Signed in my presence by the Transferor who is personally known to me.

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

Signature of Transferor

H. K. ROBERTS

State Crown Solicitor

per

Signature of Transferor

An Officer of the Attorney-General's Department

Signed in my presence by the Transferee who is personally known to me.

Signature of Witness

L. FAULKNER

Name of Witness (BLOCK LETTERS)

State Crown Solicitor, Clerk.

Address and occupation of Witness

Signature of Transferor

81/2937 C27:VR

Signature of Transferor

LOCATION OF DOCUMENTS

LODGED BY

STATE CROWN SOLICITORS OFFICE

GOODSELL BUILDING

8-12 CHIFLEY SQUARE, SYDNEY. 2000

DX 19 PHONE: 238-7406

813E

Delivery Box Number

Extra Fee

Checked by

REGISTERED / -P-19 PP.

ON CV.

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## SCHEDULE THREE HEREBY REFERRED TO

Notes (a) and (i) The Transferee hereby covenants with for itself its successors and assigns with the Transferor that -

- (1) The Transferee shall not demolish, damage, alter or change the essential historic character of the said land and the improvements thereon or permit same and shall maintain the land and the improvements thereon in good order and condition having regard to their essential historic character;
  - (2) The Transferee shall not use or permit to be used the land and any improvements thereon for any purposes other than as an historical and recreational site provided however that the cottage on the said land (being the cottage known as "No. 45 The Terrace, Shepherds Hill"), may be occupied as a home for an artist-in-residence or for any similar purposes not inconsistent with the said historical character;
  - (3) The Transferee shall not permit any new buildings or structures to be erected on the said land which adversely affects the historic character of the cottage, battery or King Edward Park; and
  - (4) These covenants shall run with the land.
-




## 12.10 Appendix J - National Archives of Australia list of Shepherds Hill related documents



## Item list

Select	Series no.	Control symbol	Item title	Date range	Digitised item	PDF	Item barcode	Format
<input type="checkbox"/>	SP553/1	<a href="#">125</a>	Shepherds Hill, alteration and additions. Plan No 7518 Access status: Open Location: Sydney	1944 - 1944			307949	
<input type="checkbox"/>	SP1048/7	<a href="#">S38/2/243</a>	Tunnel - Shepherds Hill - Newcastle Access status: Open Location: Sydney	1945 - 1946			309001	
<input type="checkbox"/>	MP472/1	<a href="#">1/17/7162</a>	Port War signal Station. Shepherds Hill Newcastle Access status: Open Location: Melbourne	1917 - 1917			375573	
<input type="checkbox"/>	MP1049/5	<a href="#">1984/3/312</a>	Shepherds Hill - Port War signal station Access status: Open Location: Melbourne	1940 - 1940			472692	
<input type="checkbox"/>	SP857/6	<a href="#">PH/840</a>	Shepherds Hill, Newcastle - Acquisition file [Box 763] Access status: Open Location: Sydney	1942 - 1947			679600	
<input type="checkbox"/>	MP472/1	<a href="#">18/18/4747</a>	Signal Station, Shepherds Hill, NSW, alterations and additions Access status: Open Location: Melbourne	1918 - 1919			971779	
<input type="checkbox"/>	MP472/1	<a href="#">11/17/1852</a>	8" BLHP gun mounted at Shepherds Hill, Newcastle (PWSS)[Port War Signal Station] Report of Court of Inquiry into accident to gun Access status: Open Location: Melbourne	1917 - 1917			971794	
<input type="checkbox"/>	MP472/1	<a href="#">18/17/4573</a>	Naval quarters at Shepherds Hill, Newcastle - repairs and painting of - occupant relieved of paying rent Access status: Open Location: Melbourne	1917 - 1917			971802	
<input type="checkbox"/>	MP472/1	<a href="#">18/17/4634</a>	Permanent quarters, Shepherds Hill, Newcastle - painting and repairs - maintenance of sewerage Access status: Open Location: Melbourne	1917 - 1917			971803	
<input type="checkbox"/>	MP472/1	<a href="#">18/17/4636</a>	Newcastle, Shepherds Hill - quarters for officers and ratings unfit for use, officers to live out and drill hall turned into sleeping quarters for ratings Access status: Open Location: Melbourne	1917 - 1917			971806	
<input type="checkbox"/>	SP394/1	<a href="#">NL20/2684</a>	Newcastle - defence property Shepherds Hill [Box 61] Access status: Open Location: Sydney	1920 - 1923			1017930	
<input type="checkbox"/>	SP394/1	<a href="#">NL23/2211</a>	Newcastle - Defence property - Shepherds Hill Fort [Box 61] Access status: Open Location: Sydney	1915 - 1923			1017933	
<input type="checkbox"/>	SP857/3	<a href="#">PC/607</a>	Shepherds Hill, Newcastle New South Wales [Box No 581] Access status: Open Location: Sydney	1944 - 1955			1053619	

<input type="checkbox"/>	SP155/1	<a href="#">DEF22647E</a>	NEWCASTLE Specification for erection of camp buildings at Shepherds Hill. 29 December 1939. [Box 72]  Access status: Open Location: Sydney	1939 - 1939			1684680	
<input type="checkbox"/>	SP155/1	<a href="#">DEF22173G</a>	NEWCASTLE Specification for erection and completion of fire observation post at Shepherds Hill. 13 October 1939. [Box 72]  Access status: Open Location: Sydney	1939 - 1939			1684687	
<input type="checkbox"/>	SP155/1	<a href="#">DEF32123F</a>	NEWCASTLE Specification for erection of 2 sleeping huts at Shepherds Hill. 15 September 1942. [Box 77]  Access status: Open Location: Sydney	1942 - 1942			1684798	
<input type="checkbox"/>	SP155/1	<a href="#">14</a>	NEWCASTLE Contract for erection of men's quarters, w.c.s, shower baths etc at Shepherds Hill Port war signal station. 01 May 1919. [Box 129]  Access status: Open Location: Sydney	1919 - 1919			1686159	
<input type="checkbox"/>	D359	<a href="#">70/155</a>	Steering Committee on Use of Colebrook Home as a residential training college - [minutes of meetings, copy of draft report prepared by Dept of Aboriginal Affairs, Report of Joint Steering Committee on the future use of "Colebrook Home" 276 Shepherds Hill Road Eden Hills SA]  Access status: Not yet examined Location: Sydney	1969 - 1972			1831669	
<input type="checkbox"/>	A9568	<a href="#">1/12/5</a>	Port of Newcastle: Designs for Leading Towers to be Erected on North Side Shepherds Hill (Never Executed)  Access status: Open Location: Canberra	circa1857 - circa1857			4957053	
<input type="checkbox"/>	B883	<a href="#">NX171856</a>	MILNE WILLIAM JACK : Service Number - NX171856 : Date of birth - 30 Oct 1914 : Place of birth - DUNDEE SCOTLAND : Place of enlistment - SHEPHERDS HILL NSW : Next of Kin - MILNE DAVID  Access status: Open Location: Canberra	1939 - 1948			5580958	
<input type="checkbox"/>	MP150/1	<a href="#">569/224/99</a>	Plan - PLAN of SHEPHERDS HILL, Drawing not to scale from HMAS MAITLAND, Newcastle - WRANS [Women's Royal Australian Naval Service] accommodation [includes various outsized plans]  Access status: Open Location: Melbourne	1943 - 1945			5798371	
<input type="checkbox"/>	B2455	<a href="#">SIMPSON GEORGE ALFRED</a>	SIMPSON George Alfred : Service Number - 6329 : Place of Birth - Shepherds Bush England : Place of Enlistment - Blackboy Hill WA : Next of Kin - (Brother) SIMPSON Edward Vincent  Access status: Open Location: Canberra	1914 - 1920			8085237	

## 12.11 Appendix K - Historic Newspaper Articles

The following newspaper articles provide further information regarding the history of the Shepherds Hill site and have been extracted from a book of newspaper clippings and photographs held by Newcastle Library Local Studies (Shepherd's Hill: photographs and paper cuttings, catalogue no. 919.442/SHE)

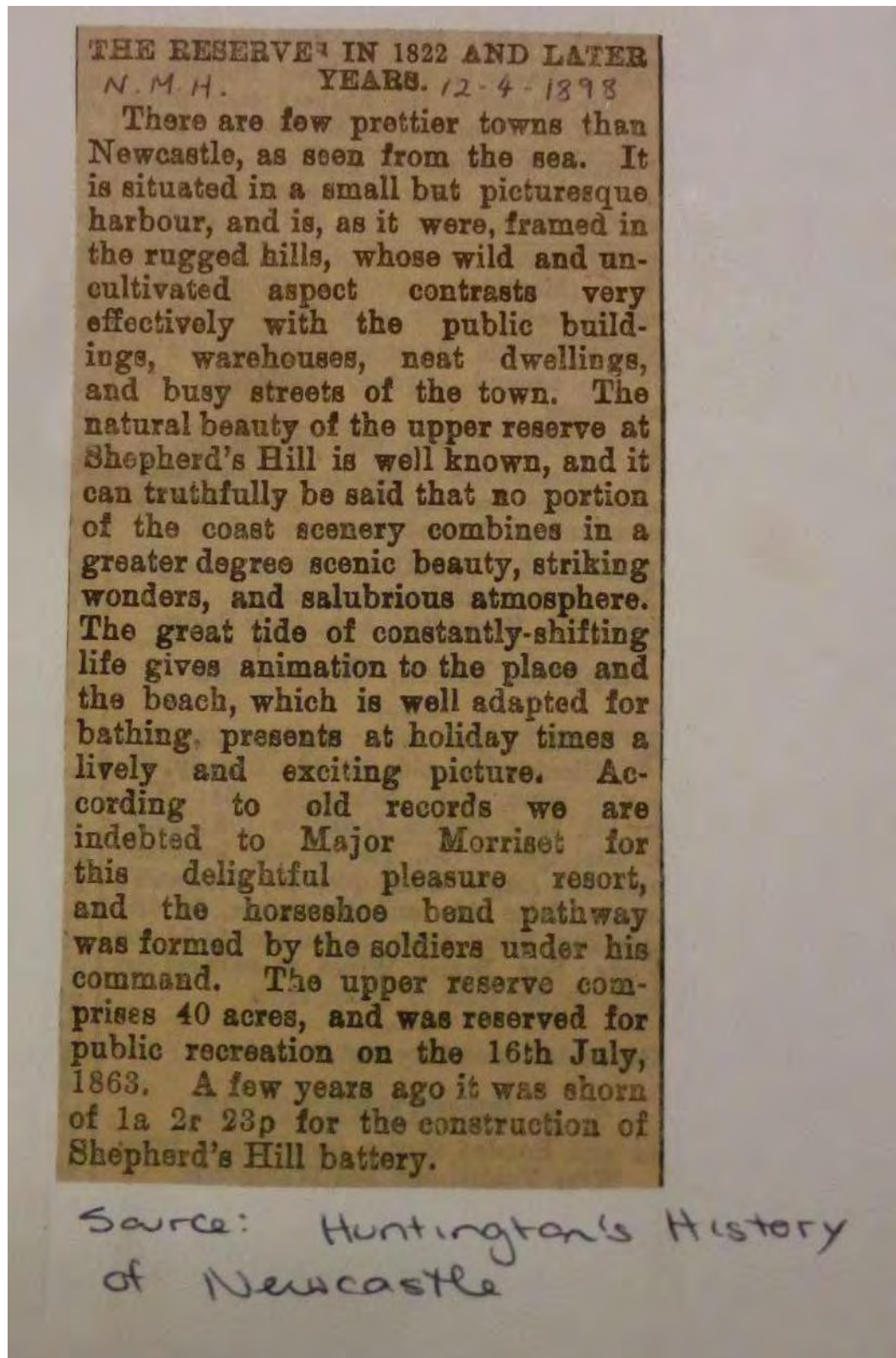


Figure 229: Newspaper article from 12 April 1898 describing Shepherds Hill and Newcastle generally.



# Govt. Wants To Sell Shepherd's Hill Land

The Commonwealth Government wants to sell a large part of the Shepherd's Hill army depot next to King Edward Park.

The Department of the Interior's Chief Property Officer for NSW (Mr. R. Snellgrove) has informed Northumberland County Council of this in a letter to be discussed at tonight's county meeting.

He said that the Commonwealth was considering disposing of the Shepherd's Hill depot area, with the exception of land containing married quarters, which it would retain.

He asked the County Council to advise what zoning would be placed on the land if it was sold by the Commonwealth. It was normal for such land to be zoned "special purposes-defence" while owned by the Commonwealth and for this zoning to be reviewed when land was sold to another owner.

## Zoned For Park

In a report to be submitted to tonight's meeting, the County Planning Consultant (Mr. F. G. D. Stone) says that the army depot land had not been zoned for special purposes-defence. Anticipating the possible future release of the land by the Commonwealth, the County Council had zoned

it for park and recreation purposes.

Mr. Stone says that the land is on the eastern side of Terrace St. and actually forms part of King Edward Park. It was an important part of the chain of open space reservations along the Newcastle ocean front and should be retained for park purposes.

"It appeared during the planning period that the use of this land for defence purposes would possibly become obsolete within a reasonably short time. For this reason it was zoned for park and recreation to ensure its retention for all time as part of King Edward Park," Mr. Stone's report adds.

He recommends that the County Council advise the Department of the Interior that it intended to retain the park and recreation zoning on the land.

The Lord Mayor (Ald. Purdue) said today that he agreed that the Shepherd's Hill depot area should be retained for a park.

He believed the City Council would be prepared to buy the area that the Commonwealth wished to dispose of and develop it as part of King Edward Park.

Figure 230: Newcastle Star article from 29 June 1961 regarding the Commonwealth's desire to sell part of Shepherds Hill and the zoning of the site for park and recreational purposes rather than defence.





Figure 231: Newcastle Morning Herald article from 9 October 1976 voicing the concerns of local residents in regards to the Shepherds Hill and Bar Beach cliff walk which was considered dangerous and treacherous. The article also notes that a recommendation was made by geologist Dr Moelle to plant saltbushes and other plants along the cliff and resurfacing of the path. The shrubbery present at Shepherds Hill today was most likely planted during this time in response to the concerns raised.

NH 14/11/1988

## Facelift for city's military history

A SMALL but dedicated band of gunners and former gunners with the Australian Army began work at the weekend on Newcastle's Shepherds Hill, at the southern end of King Edward Park, to restore part of the Hunter's military history.

The remnants of two wars and three different army set-ups can be found on the hill, according to Lt Col Richard Mort ED (RL), an expert on local military history.

The significance of Shepherds Hill to the defence of Newcastle dates back to about 1890 when an eight-inch disappearing gun was put there, Col Mort said.

Although the gun had long gone, the pit where it was situated was still there as was an area behind it that housed chambers for magazines and a small engine room.

Also still on the site is a three-storey concrete building which dates back to about 1939 and which has since been used by all three defence forces.

Col Mort said the building was erected as a battery observation post for Stockton's Fort Wallace.

But it was also used as the post for the commander in control of all batteries in the Newcastle district, from the guns at Fort Scratchley to guns located at Nobbys.

The Navy also placed a man at the Shepherds Hill post to watch for war vessels and identify them as friendly or not.

And on top of the post, in about 1941, the RAAF set up an early-warning radar set, Col Mort said.

Also of great historical significance in the area is the master gunner's cottage, built on the hill when the disappearing gun was installed.

And near the water tower, just south of the cottage, were the remnants of an emplacement for a six-inch gun.

Gunner Graeme (Tony) Steinbeck of the 113th Field Battery at Adamstown, who is a member of the group working to have the Shepherds Hill site restored, said few people were



Volunteers Dave Conway, left, Bill Davies, Bruce Aird and Tony Steinbeck clean up a gun emplacement on Shepherds Hill.

aware of the historical significance of the site.

Although that lack of understanding had seen the structures remaining at the site vandalised and lapse into a state of disrepair over the years it was still possible to restore much of what was left.

Gunner Steinbeck and other devoted volunteers began on the weekend the massive job of cleaning up the rubbish around the site and are now awaiting white-wash, provided free of charge by CIG, to repaint the observation post.

Figure 232: Newcastle Herald article from 14 November 1988 indicating that a group of gunners and former gunners with the Australian Army undertook works at Shepherds Hill in an attempt to restore the site which included cleaning rubbish and white washing the Battery Observation Post.



# Call for more aid at patrol

22.6.2002  
By DEBRA KILLALEA

THEY are often regarded as the guardian angels of the sea, but this time the Newcastle Royal Coastal Patrol are the ones calling out for help.

The voluntary organisation, which is based at Shepherds Hill in Newcastle's King Edward Park, was recently accredited by the State Rescue Board as a Marine Radio Base.

Its base monitors boating and vessel movements.

Coastal patrol volunteers are also involved in search and rescue along the coast and in Newcastle Harbour.

The service operates 24 hours a day, seven days a week.

Volunteers work with the Newcastle Port Authority, water police and naval cadets from HMAS Tobruk.

But Newcastle secretary Dianne Sergeant said it desperately needed more volunteers to help keep the service running.

'We are an important service as we provide radio assistance to boats and vessels in transit up and down the coastline, and help keep tabs on them,' Mrs Sergeant said.

Those interested in volunteering can call 4927-8237.



SEA ANGELS: Volunteer Coastal Patrol members Capt Harry Taylor and Lt Di Taylor at work yesterday.  
— Picture by Jamie Wicks

Figure 233: Newcastle Herald article from 22 June 2002 identifying a need for more Marine Patrol volunteers.

## Permanent protection for fortification



HERITAGE: Samantha Curran and Shayne Knight at the site yesterday. – Picture by Ryan Osland

HISTORIC Shepherds Hill military fortifications will be given the state's highest level of heritage protection under changes to be revealed today by the NSW government.

Minister for the Hunter Jodi McKay is poised to announce that installations, which include gun emplacements, pits and a 100 metre-long tunnel and observation posts,

have been placed on the State Heritage Register.

Ms McKay said it had a rich history.

"Shepherds Hill coordinated Newcastle's various coastal defences during World War II and I am very pleased it will be protected for generations to come," she said.

The listing means that any major works for the installations would be subject to scrutiny from

the Heritage Council of NSW as well as Newcastle City Council.

The site will have to be maintained to a predetermined standard of repair and there will be increased access to heritage funding.

Ms McKay said military occupation of the Shepherds Hill site began in the 1890s to guard against possible attacks by Russia. It included the

construction of a gun emplacement with underground rooms.

Planning Minister Tony Kelly, who played a role in adding the site to the heritage register, said that during World War II the defence systems at Shepherds Hill were strengthened to include troop accommodation, searchlights and tunnel.

– Julianne Strachan

NMH-30.6.10

Figure 234: Article from the Newcastle Morning Herald dated 20 June 2010 regarding the listing of Shepherds Hill as a heritage item on the SHI.





Figure 235: This article from the Newcastle Herald, dated 10 January 1987, provides information about Gardener Brown's Conservation Management Plan for Shepherds Hill and details the recommendations made in the report.



• Tony Steinbeck surveys the eroding pathway which he wants to reconstructed and re-opened to the public.

Star 26/4/1989

## Army offers to save cliff

LOCAL Australian Army Reservists have agreed to help reconstruct the eroding pathway and cliff face from Shepherds Hill to Bar Beach if Newcastle City Council (NCC) will supply the materials.

Army Reservist and worker-in-residence at Shepherds Hill cottage, Mr Tony Steinbeck, said the Army was very interested in becoming involved with the restorative work if council "came to the party."

Mr Steinbeck, who is restoring historic gun placements on the hill, believes the Shepherds Hill walk could become a major tourist attraction for the city if the path was made safe.

Last week, *The Star* reported on the dangerous state of the walkway from Shepherds Hill cottage at the top of King Edward Park along the ocean cliffs to Bar Beach.

Local residents and curious visitors are continuing to use the pathway despite its precarious condition and the fact that it has been officially closed.

In places the path, which is overgrown with bitou bush, is just 30cm wide and there are gaping cracks in the hill up to two metres deep.

According to Mr Steinbeck, the cracks have been getting noticeably larger over the past couple of years and show no sign of closing up.

Mr Steinbeck believes the hill is moving westwards which could threaten Memorial Drive and Fenton Avenue.

"The hill needs to be restored or reconstructed now; it's no use waiting until it falls apart even further and lives are lost."

The Army Reservists could help by clearing the land for parkland and generally propping up the hill with new vegetation and, perhaps, shaving off portions of the cliff and levelling it out so a safe pathway could be designed.

Figure 236: Article from the Star dated 26 April 1989 regarding the Shepherds Hill to Bar Beach pathway and the need for reconstruction to improve safety.





Figure 237: Article from the Sun dated 28 May 1985 indicating the cottage had been unoccupied for a number of years and also provide information about the future transfer of the property to the NSW Government and Newcastle City Council.



Shepherd's Hill Cottage, which historian Dr John Turner believes could be restored and used as a tourist tea room.

## Council discusses future of Shepherd's Hill Cottage

NEWCASTLE City Council was presented during a public access committee meeting this week with a number of alternatives for the conservation of Shepherd's Hill Cottage and the surrounding area.

The council was addressed this week by three people including a historian, Dr John Turner, Newcastle Hill Residents Group member Mrs Margaret J. Bond, and the chairman of the bicentenary environmental sub-committee, Mr Kevin Macdonald.

Dr Turner told the council this week that he believed the cottage would be best used if it was restored to original condition and used as a tea room and education centre for history walking tours by pre-arranged groups and schools.

Dr Turner told the council that he believed the cottage would provide an ideal base for tours he already had been involved with through the university's adult education program and the Workers Educational Association.

Dr Turner proposed a plan in which a member of his family would share the residential section of the cottage with Newcastle's artist-in-residence.

Ald Lanham said he was concerned that Dr Turner's plan

would lead to a number of buses crowding the area, but Dr Turner said his plan would see only pre-arranged groups visiting the cottage during the week, although he believed it would be good to have the cottage open all weekend to the public.

But Ald Lanham's suggestion that the cottage was so run down that it might be better to demolish it and build a replica sparked some debate over the state of conservation orders in force on the cottage.

### Display of photographs

Dr Turner said that he believed, from the council's own study, that funds could be available to restore the cottage to its original 1890 Master Gunner's residence condition.

'The cottage might also be a great place to display some of the historic photographs of Newcastle that have been collected in the past few years,' Dr Turner said.

The council's director of planning services, Mr Fielding, said that no investigation of the cost of restoring the building had been done.

But Mrs Bond told the council that although she could think of no one better qualified than Dr Turner to operate a tea

room in the cottage, she believed the council should not rush a decision on the cottage's future until the impact on King Edward Park was examined in a NSW National Trust study on urban parks.

'Any commercial lease on the building should be set aside because, if in the future the leaseholder wanted to expand commercial activities, there might be little the council could do,' Mrs Bond said.

She said that the listing of King Edward Park and the cottage on the National Estate register could make it easier for the council to get funds to restore the area.

Mr Fielding said that the cottage was on the register and, therefore, the Commonwealth would expect the council to restore the building.

But, Mr Fielding said, the cottage was not part of the King Edward Park public recreation reserve held in trust by the council from the State Government.

Mrs Bond said she believed that because the cottage was built as a dwelling place it should be retained as such, with perhaps a member of the council's outdoor staff sharing it with the artist-in-residence.

Figure 238: Newcastle Herald dated 16 July 1987. This article provides information about a discussion between Council and three residents regarding the potential future use of the Shepherds Hill cottage.





Figure 239: Undated newspaper images, possibly from the Newcastle Herald article of 16 July 1987. Includes an artist's impression of how the cottage could look should it be used as a tea room.

## For \$50,000, a prime cliff-top address

By SALLY CROXTON,  
Civic Reporter  
NH 13-10-1990

SHEPHERDS Hill Cottage, located on what must be the best spot in Newcastle on the cliff edge in King Edward Park, is to be leased by Newcastle City Council with mixed commercial/residential use in mind.

The council is trustee of the century-old former gunner's cottage and the Crown land on which it stands, which formed Shepherd's Hill Fort.

Providing the Department of Lands, the body responsible for the land, agrees, the council will be advertising for people interested in spending the estimated \$50,000 to \$60,000 needed to restore the run-down cottage, offering a lease of up to 25 years.

There are some strings attached for anyone interested in the proposal, including strict time limitations on completion of the work and upgrading the heritage-listed building to specifications supplied by the council.

But for those who know the cottage, whose postal address, The Terrace, is probably the most prestigious in Newcastle, it could be an inviting and exciting prospect.

In deference to the neighbours,

only low-key commercial projects, such as a tea house, kiosk or souvenir shop mixed with residential use, will be considered.

The uses were suggested in a conservation study done in 1986 by a planning consultant, Mr Gardner Brown. After a display of the study, residents generally opposed the cottage being used for any commercial activities.

But the council has come to the conclusion that members of the public should have some access to the building, and this would be denied them if the cottage was used purely for housing.

According to a history of the cottage given at a recent council meeting by Lt Col R.S. Mort, the building was originally occupied by a Mr James Woollett and his family, whose descendants still live in the region.

The council once housed its artists-in-residence at the cottage. When it abandoned the scheme about three years ago, a keen amateur historian, Mr Tony Steinbeck, leased the building. He has been there ever since doing a good deal of work to clear up the site and the tunnels nearby.

Mr Steinbeck said yesterday that he was bitterly disappointed he would have to leave after all his efforts. He did not have the money to put in a tender to try to restore the building and take out the lease on the site.

Shepherd's Hill Cottage ... on the best spot in Newcastle.

Figure 240: Newcastle Herald article from 13 October 1990 written by Sally Croxton regarding Council's desire to lease the cottage as mixed commercial/residential use.



Figure 241: Newcastle Herald article by Mike Scanlon dated 15 August 1998. This article details the potential future use of the cottage by the Royal Volunteer Coastal Patrol (Marine Rescue).





Figure 242: Article by Sally Croxton dated 14 January 1999, from the Newcastle Herald, providing information about the use of part of the cottage by the Royal Volunteer Coastal Patrol (Marine Rescue NSW).

## Shepherd's Hill tunnels restored

Star 19/4/1989

• Worker-in-residence Tony Steinbeck (second from right) standing in one of the historic tunnels at Shepherd's Hill which he is restoring with the help of (from left) Fred Dwyer, Colin Kime and Bill Davies. The cleaning and white-washing of this and another tunnel are just part of the general restorative work Tony has initiated to help make this area a tourist attraction once again. So far, the upgrading has cost him "a few hundred dollars" but he is hoping Newcastle City Council will "come to the party" with more funds to continue the work.

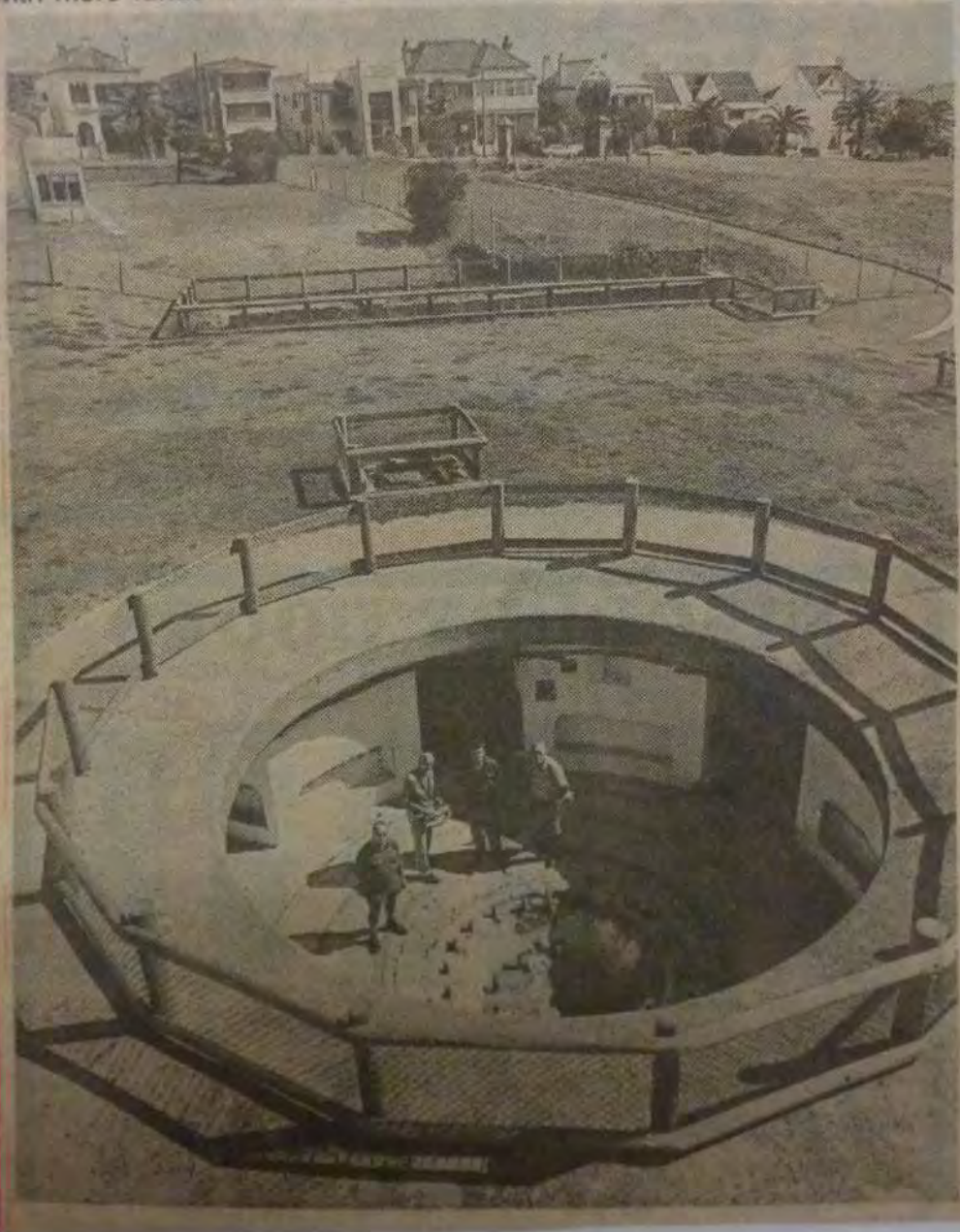


Figure 243: Article from the Star dated 19 April 1989 regarding the conservation works undertaken to the Shepherds Hill gun emplacement by a group including Tony Steinbeck who also undertook works on the site towards the end of 1988 (see Herald article from 14 November 1988).





Figure 244: Two articles from the Newcastle Herald dated 24 January 2004 and 11 February 1988. The first article provides information about Shepherds Hill while the second is concerned with a new park project that involved cleaning and restoring the Shepherds Hill Defence group Military Installations. This article most likely refers to the works later undertaken by Tony Steinbeck and his team.

# Workers cleaning up Bogey Hole fort area

NH 11-3-1988

WORK has begun on a nine-month project to beautify the area around Shepherd's Hill Fort and the Bogey Hole, two of Newcastle's most popular and historically significant sites.

Four workers employed under the Community Employment Program have spent the past five weeks clearing rubble from the old 'disappearing-gun' pit, the concrete observation post and the maze of tunnels under the fort.

The old gun emplacements and tunnels, which have long been the haunt of vandals and vagrants, will be sealed off by grilles in the next few weeks and the dangerous area around the cliff top has been fenced off.

The entire area has been cleared of saltbush and will be landscaped to become a new park adjoining King Edward Park, as part of Newcastle City Council's tourism and green city strategy.

Also included in the \$100,000 project is a new lookout over the Bogey Hole and the demolition of the old toilet block on the bluff.

The acting Town Clerk, Mr Keith Swan, said the toilet block, a haven for vandals and vagrants, and had been locked for the past few years. He said it would not be replaced.

The Shepherd's Hill restoration scheme is jointly funded by Newcastle City Council and the Community Employment Program.

## Fort dates to 1890

The council gained interim care, control and management of the Shepherd's Hill Fort last year and it is expected that the Department of Administrative Services will appoint the council as trustee this year.

The fort dates to 1890, when an eight-inch 'disappearing' gun was first installed. It was removed before World War II and the pit, which was filled with rubble, was cleared a few weeks ago.

The observation post directly in front of the gun pit was built in 1939 and was used in World War II as the navy's signal station and a fire command and radar post.

Figure 245: Newcastle Herald article from 11 March 1988 regarding works undertaken to the gun emplacement and surrounds. The grilles and fencing was also installed at this time.



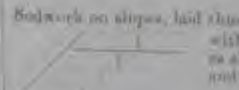


Figure 246: Article from the Newcastle Herald dated 26 June 1979 regarding the acquisition of Shepherds Hill by the State Government.

## 12.12 Appendix L - Additional Historic Images

### 12.12.1 Specification of 11 March 1890 for the Construction of Shepherds Hill Battery

Source: Public Works Department, Special Bundles, Shepherds Hill Battery, 1890, SANSW 2/895

DEFENCES OF NEW SOUTH WALES.							
PORT JACKSON.							
SCHEDULE OF PRICES.							
NOTE.—The following Schedule Form must be filled in and sent in with each Tender. The prices opposite the items to include all carriage and fixing, complete, according to the Specification and General Conditions.							
Item.	Description.		Quantity.	Rate.	Price.		
					£	s.	d.
Excavation.							
In all cases the excavation from which the stuff is taken is to be measured, and the Contractor is to provide, fix, and remove all necessary planking, shoring, &c. He will also have to level, spread, or form into slopes, embankments, parapets, &c., so much of the stuff as may be required for these purposes.							
1	Excavating earth, clay, shale, or any other formation that may be met with, except rock, and wheeling not exceeding 25 yards run, and disposing of same as above	per cu. yd.	738	1/6	55	7	
1a	Excavating for wall foundations, drainage or ventilating pipes, cesspits, wells, &c., including refilling and ramming in earthwork, clay, or shale	do.	35	2/6	4	4	6
	Do. do. rock	do.	10	1/-	6		
2	Add to item 1 for wheeling every additional 25 yards		100	2d.		16	8
3	Add to item 1 for carting every quarter of a mile	do.	220	6d.	5	10	
4	Excavating rock to any depth and for any purpose, finished to a given line or level without the aid of blasting, including wheeling, &c., as item 1	do.	200	10/-	100		
5	Excavating rock, as item 4, including wheeling, &c., with the aid of blasting	do.	360	4/6	81		
6	Add to items 4 and 5 for wheeling every additional 25 yards run	do.	50	2d.		8	4
7	Add to items 4 and 5 for carting every quarter of a mile	do.	50	6d.	1	5	
8	Earthwork, not less than 6 in. thick, the excavation from which the earth is taken to be measured as item 1	do.	20	2/-	2		
9	Sodwork, with good compact couch-grass, laid close in that, well beaten down, kept properly watered till the sods have taken root, including rods and mowing	per sq. yd.	18	1/3	1	2	6
10	Sodwork on slopes, laid thus—  with grass face downwards, watered, as above measured on the slope only and including rods and mowing	do.	30	3/6	5	5	0
Carried forward					263	2	0



Item.	Description.	Quantity.	Rate.	Price.		
				£	s.	d.
	Brought forward			263	9	-
11	Channelling rock for faced work, either straight or circular, one face only of channel to be measured, the rock cut away to be paid for as item 4. No channelling to be paid for unless ordered to be done by the officers in charge of the works. All excavation less than 18 in. in width to be taken as one channel only	per sq. ft. ...	220 1/-	11	-	-
12	Dressing down or escarping face of rock, finished true to a straight edge or mould, either straight or circular, in rough picked work; the excavation to be paid for as item 4. This item is also intended to apply to defective parts of rock faces to be made good with concrete or masonry	per sq. ft. ...	300 6/-	4	10	
13	Clay puddle for any purpose, well tempered and rammed, to be measured when in its place	per cub. yd. ...	10 6/-	3		
14	Dry backing of stone spalls for any purpose, hand-packed, and to be measured when in its place	do. ...	34 3/-	5	2	
Drainage.						
14a	2-in. porous earthenware drain-pipes, laid	per lin. ft. ...	50 6/-	1	5	
	Glazed earthenware drain-pipes for any purpose, including bends, junctions, &c., and filling in trenches when pipes are laid; but exclusive of excavation					
15	4-in. glazed earthenware pipe, pointed with clay	do. ...	84	-	-	-
16	4-in. do. do. do. cement	do. ...	116 10/-	4	16	8
17	6-in. do. do. do. clay	do. ...	1/-	-	-	-
18	6-in. do. do. do. cement	do. ...	117 1/2/-	6	16	6
19	9-in. do. do. do. clay	do. ...	2/-	-	-	-
20	9-in. do. do. do. cement	do. ...	54 2/3/-	6	1	6
21	12-in. do. do. do. clay	do. ...	26	-	-	-
22	12-in. do. do. do. cement	do. ...	84 2/9/-	11	11	-
23	16-in. do. do. do. clay	do. ...	4/-	-	-	-
24	16-in. do. do. do. cement	do. ...	10 4/6/-	2	5	-
Concrete.						
25	All concrete used on the works to be composed of stone broken to a 2 in. gauge, having its natural proportion of screenings and small stone. The ingredients shall be gauged in the following manner:—A fair sample of the stone having been placed in a tank of known contents, the amount of rods will be measured by filling the same with water. The sand, cement, and water shall in all cases together measure for each batch of concrete 10 % more than the amount of rods found in the manner. For No. 1 concrete the proportions shall be 60 % cement, 50 % sand, and 10 % water to each measure of broken bluestone. For No. 2 concrete, 80 % cement, 60 % sand, and 20 % water to each measure of broken bluestone. In No. 3 concrete, the proportions of cement, sand, and water to be the same as for No. 2, with hard freestone or shingle substituted for bluestone. All					
	Carried forward			322	9	8

Item.	Description.	Quantity.	Rate.	Price.		
				£	s.	d.
	Brought forward			322	9	8
	<p>concrete is to be thoroughly mixed, being well turned over on a clean platform (3) three times, twice dry and once wet, water being added with a rose. It is to be put in place immediately after being mixed in layers not exceeding (12 in.) twelve inches deep, and well rammed until the cement flushes to the top. No ramming to be carried on after the concrete has been in place one hour. In cold weather the concrete must be covered, and in hot weather protected from the sun and well watered until hard. The frames, moulds, centres, &amp;c., must be made and fixed and the whole of the work performed to the satisfaction of the superintending officer. If at any time during the progress of the work or during the period of maintenance it shall be found that the concrete is defective, perished, or not set sufficiently hard, the contractor shall take down, amend, or reconstruct the work. In all cases the finer portions must be worked to the outside, getting finer as they approach the surface. Where directed the upper faces shall be finished smooth and even with a trowel.</p>					
26	No. 1 concrete for any purpose and of any thickness, either 1 or 2 faced work	per cub. yd...	340	54/6	9/60	10 -
26a	Add for planed or zinc lined mouldings	per sq. yd. ...	130	4/6	20	8 -
27	No. 2 concrete for any purpose and of any thickness, 1 or 2 faced work	per cub. yd...	130	50/-	325	- -
27a	Add for planed or zinc lined mouldings	per sq. yd. ...	60	4/6	13	10 -
28	Cementing, straight or circular, to walls, ceilings, &c., 1 in. thick, mixed in the proportion of two of cement to three of sand, well floated and hand floated	per sq. yd. ...	42	2/6	5	5 -
28a	No. 3 concrete in floors and foundations	per cub. yd...	40	45/-	90	- -
29	Ditto in retaining walls	do. ...	60	44/-	135	- -
29a	Add for cutting rails supplied and fixing in roofs	per cwt. ...	420	5/-	105	- -
	<b>Masonry.</b>					
	<p>Flags used for footings under walls to be close jointed for the full extent of the wall, properly squared or worked to the radius, and the under side worked to an even surface so as to bed solidly on the ground. As much of the upper side as is covered by the walling to be neatly axed and drafted. Flags standing on edge and all exposed beddings to be neatly squared and dressed to the required form, and to have joints, beds, and exposed surfaces clean chiselled. All ashlar and blocking must have beds and joints neatly hoisted over, and be well squared or dressed to the radius, as the case may be. All wall stones to be neatly hammer dressed. The width on the bed must measure not less than one third more than the depth of the stone. The length of all coping stones must be at least double their width. In the heavier class of work there must be at least one bond stone in every square yard, and in the smaller from two to four. All sills, ashlar piers and copings must have &gt; grooves cut in the vertical joints for cement dovelling. All stones to be well knocked down to their beds to make as small a joint as possible, and well wetted before being set. Masonry to be set in cement mortar composed of one part of cement and two of sand, and well grouted. Wrought surfaces to be measured.</p>					
	Carried forward			1985	195	



Item.	Description.	Quantity.	Est.	Price.		
				£	s.	d.
	Brought forward			1985	19	8
29	Masonry in blocks, any dimensions; not less than 14 cubic feet: beds and joints, good axe and draft work, straight, circular, or radiating	per cub. yd. 11	67/6	37	2	6
30	Masonry, as above, but less than 14 cubic feet in one block	do. 20	67/6	67	10	-
31	Parapet walling, any thickness, axe and draft beds and joints	do. 20	78/-	72	-	-
32	Good neat axe and draft facework, straight or circular	per sup. ft. 30	6/-	-	15	-
33	Clean chiselled work, on face, straight or circular	do. 180	10/-	7	10	-
34	Neat axed work on rock, with chiselled draft at angles or quoins, straight or circular: to be paid for in addition to item 12	do. 300	6/-	7	10	-
35	Granite or bluestone dowels, 7 in. x 4 in. x 4 in., let into joints of stonework as directed, and grouted with cement	each 28	3/-	4	4	-
36	Cutting surface drain in stone or concrete, straight or circular: average girth 4 in.	per lin. ft. 160	6/-	4	-	-
36a	Do. do. do. 8 in.	do. 60	8/-	2	-	-
37	Cutting in stone or concrete, average section 7 in. x 1 in., circular sinking, for gun racers, including fitting and running with lead all plates, &c., for fixing racers to bed and fix racers as directed, and run all round with one part of antimony to two parts of lead. Racers must be laid perfectly level and correct in all respects	do. 70	4/-	14	-	-
38	Large flat rubble work, set in cement the same as all other masonry, intended principally for foundations and revetting	per cub. yd. 120	40/-	24	-	-
39	Rubble walling, in cement, any thickness, one or both faces exposed, joints to be neatly pointed	do. 20	45/-	45	-	-
40	Bluestone of approved quality, in blocks, any dimensions not less than 14 cubic feet, beds and joints, axe and draft work; straight, circular, or radiating, all exposed faces or parts to be fine axed	do. ft 118	6/-	35	8	-
41	Bluestone, as above, but less than 14 feet in one block	do. ft 24	7/-	8	8	-
42	Hard sandstone ballast, delivered and deposited where directed	do. 10	6/-	3	-	-
43	Approved bluestone broken to a 2-in. gauge, delivered, &c., as item 42	do. 20	12/-	12	-	-
<b>Brickwork.</b>						
44	The bricks to be used to be of the character specified, and every brick shall be well saturated with water before use. No broken bricks will be permitted to be used externally or internally unless absolutely necessary as chasers. No difference of workmanship will be allowed in the inside and outside work. Every brick shall be bedded in cement mortar, as specified for masonry, and set with a mallet wherever directed. The whole of the joints must be flushed up with mortar, and the outside joints neatly pointed and drawn. No joint of mortar shall exceed 1/2 of an inch in thickness, and the work shall be laid in English bond, and well grouted.					
	Carried forward			2330	7	2

Item	Description		Quantity	Rate	Price		
					£	s.	d.
	Brought forward				2330	7	2
	The Contractor will have to provide, erect, and strike all necessary scaffolding, &c., form ventilating flues, insert air openings, form recesses, and all work shown on the detail Drawings.						
44a	Brickwork for underground chambers and recesses	per cub. yd.	30	38/-	57	-	-
44b	Brickwork in walls and buildings	do.	120	40/-	240	-	-
44c	Paving with pressed bricks	add sq. yd.	10	6/-	3	-	-
44d	Brickwork in partitions	per cub. yd.	12	40/-	24	-	-
44e	Brickwork in arches, walls, pits, lifts, ventilating shafts, &c.	do.	6	45/-	13	10	-
44f	Brick paving with glazed bricks	per sq. yd.	10	6/-	3	-	-
44g	Paving with glazed tiles	do.	15	8/-	6	-	-
45	Pointing in full joint	do.	50	6d	1	5	-
46	Hard single pressed bricks	per thousand	2000	55/-	5	10	-
47	Glazed channel bricks, 12 in. x 6 in. wide	per hundred	120	50/-	3	-	-
48	Glazed earthenware air-bricks, 3 in. x 6 in., including fixing	do.	20	50/-	-	10	-
49	Best Portland cement as specified, 400 lbs. gross weight, including sufficient clean sharp fresh sand, and water for mixing with the same; mixing included	per barrel	12	25/-	15	-	-
50	Unslaked stone lime	per ton	1	40/-	2	-	-
51	Clean sharp fresh drift, or pit sand	per cub. yd.	10	46/-	2	5	-
52	Clean sand taken from any of the bays above high-water mark, and deposited, spread, and levelled where directed	do.	20	44/-	4	-	-
	Tar Paving and Asphalte.						
53	Tar paving (4 in.) six inches thick, to be composed of 2 in. gauge for first layer, 1 in. gauge for second, and fine grit for the third; all to be blue metal. Point twice with hot coal tar and sand when directed. Paving to be well rolled, and finished to any given line, level, gradient, or convexity	per sq. yd.	30	57/-	4	10	-
54	Pure Seyssel, Lannier, or Val de Travers asphalt, any of these brands as required, laid 1 in. thick, including necessary material, tar, labour, and fuel	do.	36	10/-	18	-	-
55	Do. do. laid 1 in. thick	do.	110	11/-	60	10	-
56	Do. do. one (1 in.) inch thick <i>or 2 1/2 layers</i>	do.	390	12/-	334	-	-
57	Kerosene tar	per gallon	10	1/-	-	10	-
58	Coal tar	do.	20	1/-	1	-	-
	<i>3 1/2" Oak plank 12 inch</i>			15/-			
	Timber Work, etc.						
	All timber to be sound, well seasoned, full cut, the square, free from sap, gum veins, and all other defects.						
59	Hardwood of this Colony, either rosinbark, blue gum, blackbutt, tallow wood, sawn to any scantling or planking	per 100 sq. ft.	1400	16/6	11	11	-
	Carried forward				3043	8	2



Item	Description	Quantity	Rate	Price		
				£	s	d
	Brought forward			3043	8	2
59a	Hardwood in studs and joists, including nailing and fixing	per 100 sup. ft.	3 $\frac{2}{10}$ 25/-	4	-	-
59b	Batten flooring, hardwood, $\frac{1}{2}$ in. x 7 in. wide, laid folding, including nailing and laying	do	3 $\frac{1}{4}$ 27/6	1	-	8
59c	Batten flooring, hardwood, 1 in. x 7 in. wide, laid folding, including nailing and laying	do	1 $\frac{1}{2}$ 32/-	2	8	-
59d	Batten flooring, hardwood, 1 $\frac{1}{2}$ in. by 7 in. wide, laid folding, including nailing and laying	do	5 $\frac{7}{100}$ 40/-	1	1	7
59e	Batten flooring, Baltic or Kauri pine, 1 in., laid straight joint, including laying	do	6 $\frac{0}{100}$ 32/-	-	19	3
59f	Batten flooring, Baltic or Kauri pine, 1 $\frac{1}{2}$ in., laid straight joint, including laying	do	3 $\frac{3}{4}$ 48/-	9	-	-
59g	Batten flooring, Baltic or Kauri pine, 2 in., laid straight joint, including laying	do	3 $\frac{6}{100}$ 64/-	1	3	-
59h	Pine skirting, including fixing, 9 in. x 1 in.	per ft. run	100 64/-	2	10	-
59i	Lining to magazines and recesses, copper nailed as shown in detail drawing	per 100 sup. ft.	15 $\frac{15}{100}$ 44/-	9	11	-
60	Timber, as above, framed and fixed for any purpose, including all nails, screws, &c., add to item 59.	do	2 $\frac{11}{100}$ 14/6	-	3	-
61	Timber, as items 59 and 60, with the addition of being wrought; wrought surfaces to be measured only; add to item 60	do	5 $\frac{1}{2}$ 14/6	3	8	9
Items 60 and 61 are also intended to apply to any other description of timber or work not specified. Notice should be taken that brass or copper nails and screws must be used for fittings in magazines, shell rooms, or any other place where powder is kept or handled.						
62	Red Baltic deal, sawn to any thickness, or scantling	do	2 $\frac{1}{2}$ 34/-	4	7	6
63	Oregon timber, any dimensions	do	1 $\frac{8}{10}$ 22/-	1	2	-
63a	Kauri pine	do	1 $\frac{10}{10}$ 28/-	2	6	9
64	Colonial pine, any dimensions	do	2 $\frac{1}{2}$ 22/-	2	15	-
65	Cedar, sawn, as item 62	do	1 $\frac{10}{10}$ 60/-	3	6	-
66	Troularh girders, 12 in. x 12 in., any lengths	per foot run	120 3/-	18	-	-
The same price proportionately will be paid for any other dimensions for girders as item 66, and sections may be from 51 sup. inches to 120 sup. inches.						
67	Strong 5 in. brass butt hinges, including brass screws and fixing	per pair	26 7/6	9	15	-
68	Strong brass drop rings for doors, &c., fixed, complete	do	6 8/-	1	10	-
69	Strong 8 in. brass barrel bolts, fixed, complete	do	24 8/-	6	-	-
70	All brass deadlock 6 in., with two gun-metal keys for each, keys to be interchangeable for these locks when required; including fixing lock, wrench, &c., complete. Specimen locks may be seen at Military Works Office. Master keys will also have to be provided	each	30/-	-	-	-
71	Do, do, 7 in. lock	do	13 35/-	22	15	-
	Carried forward			3150	10	8

Item.	Description.	Quantity.	Rate.	Price.		
				£	s.	d.
	Brought forward			3150	10	8
71a	Hobbs' patent three inch (3 in.) galvanized iron padlocks, with two keys for each lock, and keys to be interchangeable, also master keys provided when required	each ...	4	14	2	8
72	Copper nails, any sizes	per lb.	10	19	-	14 6
73	Iron wire nails, any sizes	do.	30	44	-	10 -
74	2 in. stout brass screws	per gross	3	91	-	1 7 -
	NOTE.—Items under timber work, &c., are intended to apply to magazine and shell room doors and frames, fittings, &c., or to any other work that may be required of a similar nature, such as gates, benches, drawers, &c., &c., as may be required, and as are shown on the detail Drawings.					
75	2 in. cedar sashes, double-hung, pivoted, or hinged in cedar-cased or hardwood frames, with hardwood sills sunk and weathered, patent axle-pulleys, pivots, or brass hinges, cords, &c., all complete; and glazed with 32 oz. flatted sheet glass. One, or outside surface of sash to be measured only, and no allowance to be made for frames or fastenings	per sup. ft.	30	51	7	10 -
75a	1 in. hardwood hedged doors, hung to solid wrought and rebated frame, with cross garnet hinges, and fitted with stock lock	per sq. ft.	36	46	4	10 -
75b	1½ in. four-panelled and square doors hung to framed and beaded grounds and 1½ in. double rebated jamb lining, 2 in. architrave moulding with 4 in. butts, and 6 in. iron rim locks and brass furniture	do.	40	46	9	- -
75c	Solid four-panelled magazine doors, as shown on detail drawing, complete without locks, but to include fixing when provided	do.	250	51	63	10 -
75d	Cleaving benches, 3 ft. x 2 ft. x 2 ft. 6 in. high, with over-shelf and two drawers, as detailed in drawings	each	2	60	6	- -
75e	Hobbs' No. 122 all brass full lever mortice locks, with two No. 130 drop handles, duplicate keys, and two master keys for each set of locks. Add to invoice price 15%				15	- -
75f	Ironmongery and stock brasswork	do.			5	- -
	Ironwork, &c.					
76	Cast-iron, including pattern and fixing, complete, including lead, &c.	cwt.	55½	-	-	-
76a	Iron castings under 10 lbs.	per lb.	125	24	1	0 10
76b	Do. over 10 lbs. and under 50 lbs.	do.	60	24	-	10 -
76c	Do. over 50 lbs.	per cwt.	3	-	-	-
76d	Add to ironwork for cost and use of patterns	per lb.	125	12	-	10 5
76e	Cast iron in sashes, down pipes, heads, heads, standards, brackets, railing, covers, gratings, air bricks, &c.	do.	180	6	4	10 -
	Carried forward			3271	14	5

Br 192-61 (2)



Item.	Description.		Quantity.	Rate.	Price		
					£	s.	d.
	Brought forward				327	14	5
77	Wrought-iron in plates, shutters, straps, ventilators, gratings, bolts, rods, &c., including fixing, as item 76	per cwt.	4	60/-	12	-	-
77a	Wrought-iron in plates, bars, angles	do.	3	25/-	3	15	-
77b	Do. do. add for rivetting, framing, fitting, and fixing, including materials for fixing	do.	3	35/-	5	5	-
77c	Iron in lamp recess, doors and frames, mantlet doors, lifts, hatches, derricks, and similar work	do.	12 <sup>96</sup> / <sub>112</sub>	60/-	38	11	5
77d	Traveller rails and hangers, including fixing	per ft. run	110	15/-	82	10	-
78	Galvanizing in plates, shutters, straps, ventilators, gratings, bolts, rods, &c., including fixing, as item 76	per cwt.	4	20/-	5	12	-
79	Wrought-iron box, or any other made girder, including fixing	do.	20 <sup>1</sup> / <sub>2</sub>	25/-	26	13	-
80	Roller girders, any size, or trade shape, including all fastenings for fixing, and fixing complete	do.	2	20/-	2	-	-
81	400 gallon water tank, with strong brass tap fitted, in perfect condition	each	24	70/-	84	-	-
82	2 in. galvanized iron water-pipe, including all junctions, bends, &c., fixed, complete	per lin. ft.	288	3/6	50	8	-
83	1 1/2 in. galvanized iron water-pipe, including all junctions, bends, &c., fixed, complete	do.	150	1/6	11	5	-
84	1 in. galvanized iron water-pipe, including all junctions, bends, &c., fixed, complete	do.	100	1/-	5	-	-
85	Sheet lead, any thickness	per cwt.	4	35/-	7	-	-
86	Old lead	do.	2	25/-	2	10	-
87	Brass in straps, sheaves, rollers, rails, bolts, nuts, screws, &c., &c., including pattern for founder, turning and finishing as for finished castings in best manner, including fixing to any material, and lead for running when necessary	per lb.	78	3/6	13	13	-
87a	Gun-metal in bushes, bearings, rollers, &c., turned and fitted to ironwork	do.	10	5/-	2	10	-
87b	Copper piping fitted with all necessary couplings, brazed flanges &c.	do.	30	4/-	6	-	-
88	Painting, four coats, in best white lead and oil, or any other brand of paint that may be required, including stopping and priming	per yard	147	1/6	11	0	6
89	Whitewashing with stone lime, two coats	do.	100	3d	1	5	-
90	Tarring with coal or kerosene tar, one coat	do.	20	4d	-	6	8
91	Rails for loading stages, trucks, &c., to travel on, any section that may be required, including all fastenings, plates, bolts, bends, curves, points, &c., that may be necessary, and all laying and fixing, complete. All fastenings, &c., to be wrought as rails, and to be as directed	per cwt.	450	10/-	360	-	-
92	Galvanized corrugated iron, gauge, and lengths as required, approved brand, including lead washers, screws, &c.	do.	5	30/-	7	10	-
	Carried forward				400	9	-

Item	Description	Quantity	Rate	Price		
				£	s	d
	Brought forward			4010	9	—
93	Add to item 92 for fixing iron to any framework, &c. per cwt.	5	6/-	1	10	—
94	Erect and maintain temporary office or offices, as may be required: each office to consist of two apartments, 12 ft. x 12 ft. and 12 ft. x 8 ft., and 10 ft. high to eaves, on suitable foundations, 4 in. x 2½ in. hardwood stud- ding, 4 in. x 4 in. angle-posts, properly framed together, sheeted externally with 1 in. hardwood weather-boards, with all necessary angle and other stops. Build brick chimney-breast, stack, and hearth. Roof to be gabled and covered with shingles; put O.G. guttering along eaves, and all necessary down-pipes. Lodge door in partition and entrance, hung with strong hinges, and fastened with good locks. Internal walls, partition on both sides, and ceilings to be lined with ½ in. tongued and grooved pine boards: windows, two in number, of suitable dimensions, and moveable, as directed, with fastenings and window blinds, complete. Provide stove, fuel, and £3 worth of utensils. The office to be fitted with drawing-board, and drawer under, fastened with patent brass lock, desk, table, stool, shelves and rack for plans, and three strong chairs. The other apartments to have washstand, stretcher with mattress, &c., to the value of £7.	1		95		
	<b>Daywork.</b>					
	Day labour, including the supply of tools, tackles, plant, machinery, &c., that may be required for the efficient carrying out of the work, all to be in good order and condition, and of best quality.					
95	Labourer, as above	per hour		1/3		
96	Quarryman do	do		1/8		
97	Mason do	do		1/9		
98	Bricklayer do	do		1/9		
99	Carpenter do	do		1/8		
100	Plumber do	do		1/10		
101	Fitter do	do		2/-		
101a	Plater, boiler-maker, riveter	do		2/3		
101b	Holders-on and assistants	do		1/3		
101c	Apprentices	do		1/3		
111a	Patternmakers	do		2/-		
101e	Coppersmiths	do		2/-		
102	Smith, including coals and use of forge and tools, as above	do		2/3		
103	Painter, including coals and use of forge and tools, as above	do		1/6		
104	Horse, cart, and driver	do		2/6		
105	Each additional horse	do		1/-		
106	Blasting powder, including sufficient fuse	per lb.		1/3		
	Carried forward		allow £100	100		
				4206	19	—



Item.	Description.	Quantity.	Rate.	Price.		
				£	s.	d.
	Brought forward			4206	19	-
	Credit for Old Material Re-used.					
Wrought-iron	per lb.		1/2			
Gun-metal	do...		1/-			
Copper	do...		1/-			
Lead	do...		1d			
	TOTAL			4206	19	-

£4206-19-0

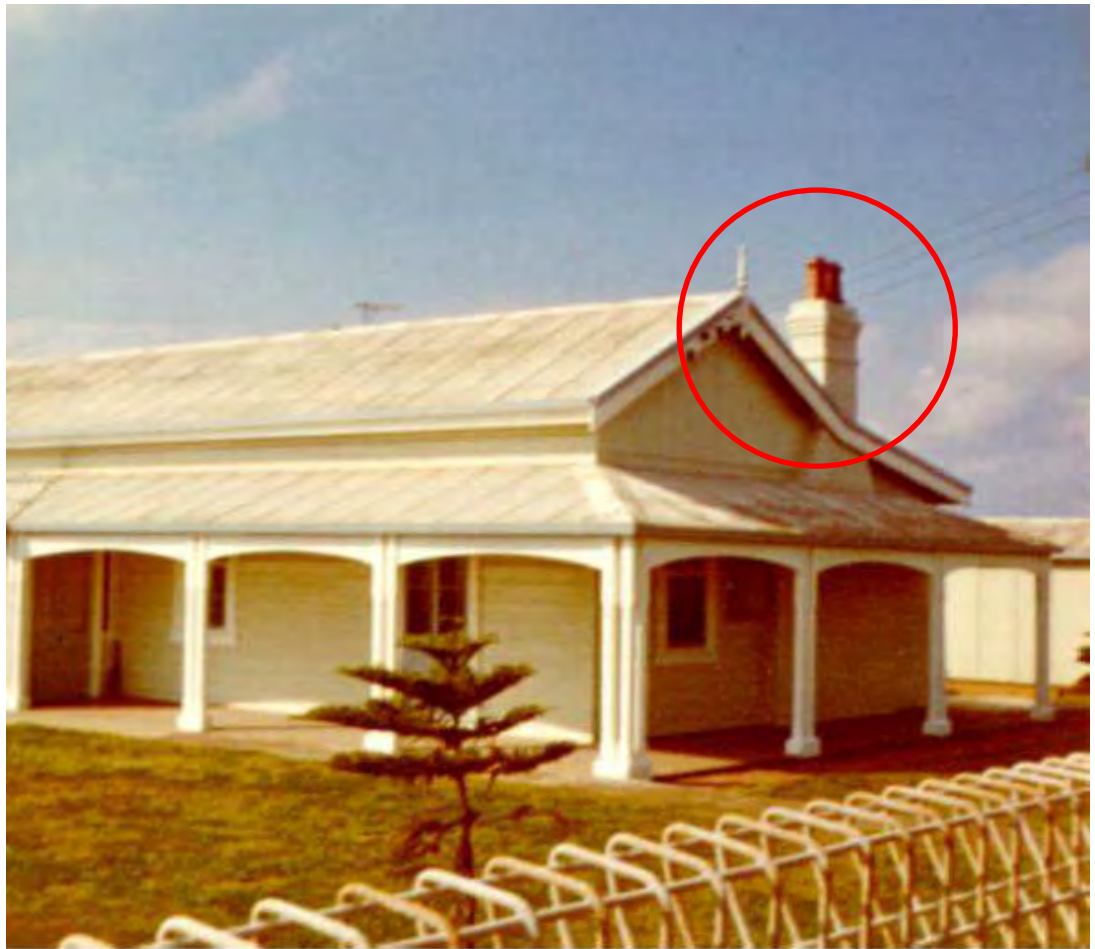


Figure 247: Photograph of the cottage at Shepherds Hill from 1976. The previously destroyed chimney can be seen, circled in red. (Source: Newcastle Region Library, no. 005 000472)



Figure 248: Photograph from 1998 of the cottage eastern and northern elevation by Grant White. (Source: Newcastle Regional Library, no ID number)



Figure 249: Detailed view of a photograph from 1900 showing the presence of the Shepherd's Hill cottage along with a water tower that is no longer present. (Source: Historic Photographs website, <http://www.historicphotographs.com.au/searcher.asp?force=1&count=128&statslogged=1&region=1&country=2&terms=newcastle&place=&startYear=0&endYear=0&subset=&property=&sort=2&start=25&preview=0&changeresultsperpage=0&rnd=0>)



Figure 250: Photograph of the cottage shortly after the April 2015 storm. (Source: NBN News, "Back on the Air for Boaties," <http://www.nbnnews.com.au/2015/11/30/back-on-the-air-for-boaties/>)

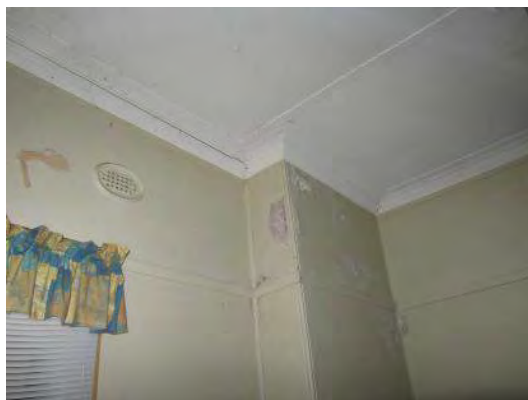




Figure 251: Photographs of the interior of the cottage taken shortly after the April 2015 storm. The first photograph is of Bedroom 2 while the second photograph is of the dining room. (Source: photographs taken by John Carr and provided by Newcastle City Council)



Figure 252: Photograph of the ceiling of the living room showing the damage caused by the storm. (Source: photographs taken by John Carr and provided by Newcastle City Council)

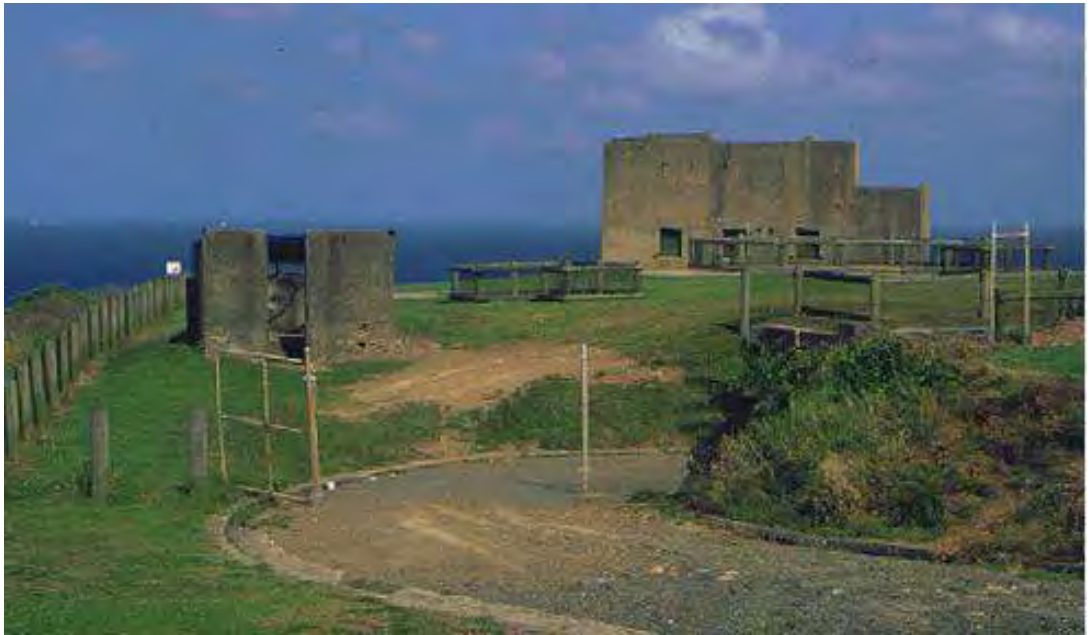


Figure 253: View of the Battery Observation Post looking East in December 1998. Photograph taken by Grant White. (Source: Newcastle Region Library, no.244 000232)





Figure 254: Photograph from c.1940 showing a Coastal Artillery group at Shepherds Hill. (Source: Newcastle Region Library, no.020 000001)



Figure 255: Photograph of the Observation Post and gun pit looking east. By Grant White in 1998. (Source: Newcastle Region Library, no ID number)



Figure 256: Photograph of the Battery Observation Post looking south towards the northern elevation in 2014. (Source: Flickr, by OZinOH, <https://www.flickr.com/photos/75905404@N00/14190704656>)



Figure 257: Painting of Shepherd's Hill from Dudley. Unknown artists and date. (Source: Newcastle Region Library, no collection ID number)





Figure 258: Photograph from October 1971 of surfers at Newcastle Beach with Shepherd's Hill visible in the background. (Source: Newcastle Region Library, no. 104 008343)



Figure 259: Photograph from 1914 of Newcastle Beach looking South towards Shepherd Hill. (Source: State Library of NSW, item no. d1\_16361)



Figure 260: Photograph ca.1900-1910 of Shepherds Hill from Newcastle Beach. (Source: State Library of NSW, item no. PXE 711/ 474)



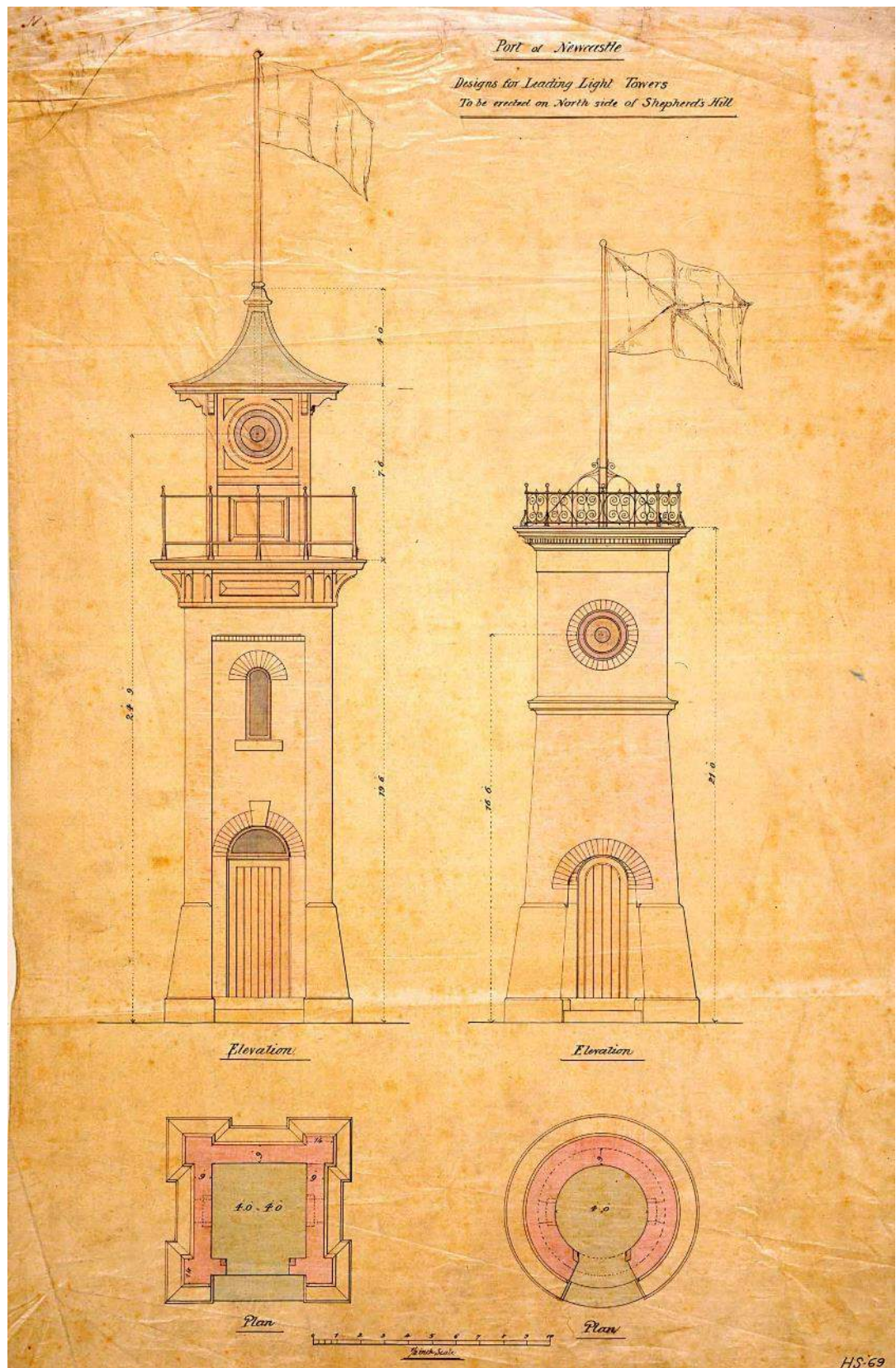


Figure 261: Drawings of two leading light towers proposed for erection on the northern side of Shepherds Hill site. The plans were not executed and are dated c.1875, prior to the construction of the gun emplacement and cottage. (Source: National Archives of Australia, series no. A9568)



## 12.13 Appendix M - ABC1233 Radio Broadcast Notes "Local Treasures - Newcastle's King Edward Park," April 2014, Dr Ann Hardy

# Newcastle's Old Government Domain (1804) ~ A University of Newcastle Coal River Working Party Initiative

## Local Treasures – Newcastle's King Edward Park

22 Tuesday Apr 2014

POSTED BY UONCC IN ALFRED SHARP, KING EDWARD PARK

≈ 1 COMMENT

Tags

bogey hole, History, king edward park, Parks and Recreational

### Newcastle's King Edward Park

### Local Treasures ABC1233 radio

### Broadcast Notes April 2014

By Dr Ann Hardy

A research team interested in the history of the Newcastle Government Domain and King Edward Park meet regularly to further research of this historic precinct of the city. The group is part of the University of Newcastle's Coal River Working Party, and includes members from the National Trust of Australia (NSW) and local community. In 2010 the group submitted a nomination to have King Edward Park listed on the NSW State Heritage Register. The following history of the park was compiled by Dr Robert Evans, Ann Hardy and research assistant Liz Thwaites for the nomination, which is under review in April 2014. The photographs of the park from the 1890s were recently located in the Hyde Family Album held at the State Library of New South Wales.

A history of King Edward Park

Newcastle Recreation Reserve, later called the Upper Reserve and after 1911, King Edward Park to commemorate the life of Edward VII, lies immediately to the south of the central city area of Newcastle, NSW. The Park is part of an historic area which stretches from Nobbys to Fort Scratchley namely Coal River Precinct, to the Government Domain (James Fletcher Hospital site) and to the Park.

The Park is roughly triangular in shape. The eastern border includes the cliffs and shoreline to the Pacific Ocean. The cliffs were once part of the Nobby's Tuff, cream and grey layered consolidated volcanic ash that has formed above the coal seams the coal responsible for Newcastle's existence. The northern border of the park is along Ordnance and Pit Streets: on the west is The Terrace, the Victorian street of grand mansions, and a line to Brown Street where it meets Pit Street. The western and southern borders meet near the high cliffs on Shepherd's Hill.

King Edward Park is a creation of the nineteenth century in a city which was called, an unusual example of a transplanted British community.[1] At the beginning of the coal boom, in the 1850s there were a number of farseeing citizens in Newcastle, members of the Newcastle Chamber of Commerce, who foresaw the need for a large public park. They were very ambitious for Newcastle, it would become a great industrial area and the most important port in the Pacific, one day it might out rival Sydney. The group did much to support the shipping trade and business. The members believed that parks gave a city status. There were precedents in Victorian Britain where wealthy philanthropists fostered the creation of libraries, museums, art galleries, hospitals and public parks. They believed that their actions helped stabilize society, increased property values and boosted their images as valuable members of society. Public gardens became valued amenities in British towns and cities and the early colonists brought the sentiment to Australia. Gardens were reminders of home and a way of establishing themselves in their new settlement.

The Chamber lobbied the NSW Government for land for a public recreation area: the city was granted, in 1856, in perpetuity, the 35 acres of land (49 acres was added in 1894) which became the first part of King Edward Park "... in the most delightful and picturesque part of Newcastle from the top of Watt Street round the Horseshoe to the Obelisk".[2] In 1863 the Newcastle Borough Council was made trustee of that area, then called the Upper Reserve.

Newcastle was founded in 1804 as a penal colony for the worst sort of convicts, the re-offenders who authorities considered deserved severe punishment. They were forced to work under the most rigorous conditions, in timber gathering, in lime burning and in coal mining. That convict era left its mark on the city in a negative self-image. However the convicts began Newcastle's identification with coal. The commercial exploitation of coal, 'the Black gold' also drove the rapid growth of the port of Newcastle and between 1860 and 1890 brought prosperity to the city. The coal industry attracted immigrants from the coal mining areas of Britain, particularly Wales and the Midlands and Newcastle, NSW, became a transplanted British coal-mining village in population and in culture. However by the end of the 19<sup>th</sup> century the local mines were exhausted and mining moved inland. Newcastle slumped but its fortunes were revived with the construction of the BHP Steel works in 1913. Both World Wars brought prosperity, with periods of depression and unemployment between the wars. Then after World War II despite the closure of the steel works in 1990, there was a growing diversity of employment opportunities. People began to think about cultural matters and a regional art gallery and a museum appeared. However the basic form of King Edward Park was set in the nineteenth and early twentieth century.

The way in which the park developed was closely tied to the economic progress of a city dependent on two industries, coal and steel, which experienced periods of prosperity, stagnation and depression. There were frequent periods of unemployment and poverty which led people and local government to adopt the view that job creation was of the highest priority and industries that increased employment should be encouraged no matter how much pollution they might cause. There



was little time, energy or money to direct to cultural matters. A Newcastle Chamber of Commerce pamphlet (1908) declared that 'aestheticism must give way to the material wants of mankind .... a place so evidently intended to be a manufacturing centre as Newcastle is cannot expect to evade ... the destiny mapped out for it.' The city was a place of smoke and grime until the middle of the twentieth century. Newcastle people developed negative images of their own city which was reflected in the views of people in the rest of the country... it was not good for progress.[3]



Source- Gentleman and young girl sitting on bench at Upper Reserve. Hyde Family Album State Library of New South Wales PXA 1445

Newcastle was additionally disadvantaged because it was dependent on outside finances. The NSW Government provided the extensive infrastructure required for the coal and steel industries and the port: they were valuable contributors to the state's funds. However, apart from the infrastructure little of the wealth generated came to the city. Similarly, industry funding came from outside, from private financial institutions and investors in Sydney, Melbourne and London and that is where the profits went'.[4] There were no philanthropists for Newcastle amongst them. Thus Newcastle was deprived for a long time of civic amenities that one have expected in the second largest city in NSW and in comparison with other Australian, cities, both regional and capital cities. It would take until the 1970s for cultural amenities like civic museums and art galleries to become established. King Edward Park received little financial support: it is perhaps surprising it has survived so well.



Source- People at Newcastle's Upper Reserve. Hyde Family Album State Library of New South Wales PXA 1445.



Source- People at Newcastle's Upper Reserve. Hyde Family Album State Library of New South Wales PXA 1445.

### The beginnings of the Upper reserve

So far we have little information on the improvements instituted in the first few decades. There were some trees planted and paths constructed and by the late 1880s citizens valued the park as a pleasant place of public recreation.

Then around 1890 Council attention was directed to increasing park facilities and appearances. The topography of the reserve presented difficulties for a prospective landscape designer. There were steep hills and deep gullies. The soil was poor. Most of the difficulties were caused by the southerly winds which were often strong and always salt laden. In most of the area only stunted grasses were growing that was how it received its first name, Sheep Pasture Hills, given in 1801 by the early explorer, Colonel James Paterson. It reminded him of English pastures.

On the other hand, the terrain offered opportunities to create a picturesque public garden. The reserve sits in a basin-shaped hollow in a coastal ridge which runs from Newcastle Beach to Bar Beach. On the northern and southern borders of the basin were prominences, 70 metres above sea level the interrupted ends of the coastal ridge, and between them a central prominence of the same height. Between the prominences were two gullies which ran from the high land near where Reserve Road and The Terrace are now, down to the sea. The northern gully was deep with steep sides. It was angled to the east and partly protected from the wind. With some care trees and plants might grow. The southern gully was shallower and more open to the sea than the northern gully, any vegetation would struggle to survive. In 1890 the Council called tenders for a landscape design for the development of the park.



Source- Newcastle's Upper Reserve. Hyde Family Album State Library of New South Wales PXA 1445.

### Alfred Sharp's vision

In 1890 the Newcastle Borough Council awarded Mr Alfred Sharp<sup>[5]</sup> a contract to provide a plan for the design of the Upper Reserve. The plans he produced have not been found, and our knowledge of them comes from an article in the Newcastle Morning Herald in 1890.<sup>[6]</sup> James Beattie, a landscape and garden historian who is familiar with King Edward Park and with Sharp's work has written "Today, Sharpe's design has been altered, even though the basic structure of his conception survives" and "It... is possible to experience the winding paths and formal layout of the upper section of the reserve that adhere to Sharpe's design principles."<sup>[7]</sup> While many gardeners have contributed to the park's development for well over a century and a half, one can say that King Edward Park is Alfred Sharp's park.



Alfred Sharp was an artist, an architect and draftsman and a landscape designer. He designed other parks around Newcastle; in Islington, Hamilton, Wickham and in Lake Macquarie. He came to Newcastle from New Zealand in 1887 to join his brother, William Bethel Sharp a businessman and politician. He was born in Birkenhead, England in 1836 (d. Newcastle 1908), and trained as a draughtsman and in art. He went to New Zealand at the age of 25, worked first as a farmer, then moved to Auckland to further a career in art. He became well known as a water colourist, painting mostly landscapes which portrayed the native trees and plants of New Zealand, sometimes in their ideal state and sometimes as damaged vegetation. In highly detailed work he was expressing his love of nature and his concern that native vegetation was being destroyed by European development. Beattie describes Sharp as being amongst the best landscape artists in New Zealand in the nineteenth century.

Sharp was also an acknowledged art theorist and notorious in elite Auckland art circles for his criticisms of contemporary painting, mostly expressed in articles and letters to Auckland newspapers. His criticisms were not confined to art: he was an outspoken environmentalist, decrying the despoliation of the countryside around Auckland.

In Newcastle Alfred Sharp practised as an architect but received few commissions.[8] He continued to paint in Newcastle, often displaying his concern about the damage done to the native bush by the early settlers, in the face of government neglect. One painting showed “the last dying remnants of the tree forests that existed between Glebe and Adamstown”, emphasising dead trees and stumps amongst the few living trees His industrial scenes such as those of the Sulphide smelting works at Cockle Creek, showed ugly buildings and smoking chimneys surrounded by dying trees.[9]



Source- View towards the former Bowling Club at Newcastle's Upper Reserve. Hyde Family Album  
State Library of New South Wales PXA 1445.

In Newcastle Sharp's paintings were less successful commercially than in New Zealand. He complained frequently about the lack of outlets for his work. More successfully he produced many illuminated addresses commemorating the visits of dignitaries and other important people. He wrote little about art but contributed many letters to the local newspapers expressing his views on the affairs of his adopted city; on social welfare, on culture, on the environment, on horticulture and on park design and management.



In landscape design Sharp had a passion for creating public spaces for people. He followed the philosophies of the English landscape designer Humphry Repton (1752-1818), a successor of Capability Brown in British gardening history. Brown, Repton and others changed the face of British gardens and parks. In their landscape designs they obliterated all the old art and geometry of gardens that had originated in France and Italy. Avenues, parterres and terraces: basins and canals disappeared and were replaced with vistas of shaped land and plantings which resembled nature. In the plantings clumps and plantations of trees predominated, their placing related to background vistas. Repton published a creed of perfection in landscape gardening: some items of which are apparent in Sharp's ideas for the Reserve and may be seen in the King Edward Park of today. Repton declared that a park should display the natural beauties of the site and hide natural defects. It should give the appearance of extent and freedom, carefully disguising and hiding the boundaries. The whole should give the appearance that it is a production of nature only, even if the scenery has required some improvement. Sharp, like Repton and his adherents, believed that a park should be laid out in a manner acceptable to an artist, utilising the skills of a gardener. In Newcastle Sharp continued to bring his views to public notice.

The Newcastle Morning Herald published over fifty letters from Sharp; his forceful and colourful language must have appealed to the editor. He wrote angrily about the pollution of the beaches of Newcastle and the rubbish that people left lying on the streets. He complained about the lack of a sewerage system in the city. He was concerned about conditions of the working class people in the grim industrial climate of the Newcastle. He deplored the cultural poverty of the middle class ... the city lacked a museum, an art gallery and any art society.

Sharp was conscious of the living environment, the trees and plants, in and around a city. He criticised the bareness of Newcastle,

“If ever cool, green shade would be appreciated it would be in the glare and heat of our dusty streets—such a desirable thing can be attained with but little cost, and only requiring some care and attention while the trees are young, it is a standing wonder both to residents and strangers, why Newcastle streets are so hideously bare of public trees.[10]”

He complained that even the few existing trees were treated badly by those who were meant to care for them. He loathed excessive pruning “the knife and saw rampant beyond all conception”.

Sharp was distressed by the way trees were managed in the Upper Reserve and in other parks around Newcastle. He knew from his experiences in New Zealand that growing trees in adverse conditions, with exposure to the wind and a salt laden atmosphere was fraught with difficulty. Trees planted in such areas needed careful protection if they were to flourish and if they were to maintain the attractive appearance essential in a public pleasure ground. He stated that trees should be planted in clumps for mutual protection. Salt resistant shrubs could be planted around them to lessen the impact of the wind. To the tree every branch, every twig and every leaf was important ‘outrageous pruning’ was so damaging. Sharp also appreciated the importance of the soil around the trees for successful growth. He condemned the common practice in the Reserve of digging the soil near the trees for tidiness or for growing flowers. Digging severed the surface roots which were important to the growth and vitality of trees, depriving them of moisture and nutrients. Digging diminished the structural support trees needed to defy strong winds. The practice of burning off the grass and leaves under the trees horrified him even more than the use of the spade, because it damaged the surface roots and burnt the leaves.[11]

Sharp was not totally opposed to flower gardens in parks, but was adamant that they should not be planted near trees. He also argued that annuals required much effort and expense to maintain an attractive appearance and their beds were bare for a large part of the year for cultivation and replanting. Planting trees and shrubs offered a more effective way of creating a pleasing environment

in a public park: they should be the first priority in planting. Grass could be allowed to grow near the trees, it would not harm them and conserved moisture. Sharp wrote about the harmful practices he had observed in the Reserve. In a letter headed "Woodman, spare that tree" he wrote that the mistreated trees often ended up "as pitiful objects of misery and ugliness; and surely, a broom stick is not a type of tree." [12] Trees could be trimmed to allow people to walk under them as long as the branches were not disfigured and distorted. He believed that the provision of shade trees was essential. For example, he complained that the circular lawn in the Reserve would be barren and shade less if the Council proceeded with its plans to build a Rotunda. The report from Council stated "They should plant a circle of giant myrtles (pohutakawa) so that people could sit in the shade and listen to the band of the 4<sup>th</sup> Regiment". [13]

For Sharp trees were the most valuable adornment for a scenic park. A landscape designer should select carefully the varieties of trees to ensure that they flourished and grew decoratively. He said he was sick of some of the trees commonly used in sea side parks in Australia. The Norfolk Island pine (hereafter pine) was ugly and spiky and grew too slowly it would be no good in a pleasure garden. Today he might be surprised to see how well the pines in King Edward Park have grown and how well they suit the large scale of the park and its background). Moreton Bay figs were also unsatisfactory: they kill everything beneath them and cover the ground with litter and debris. [14]

Sharp strongly advocated planting the pohutakawa, the giant myrtle of New Zealand (*Metrosideros excelsa*, the NZ Christmas tree) because it survived in coastal conditions, it grew to 30 metres, was evergreen and had a handsome spreading crown for shade. It did not create litter. In summer it was covered with attractive red flowers. [15] Pohutakawa trees grew well near the coast in Newcastle, including in King Edward Park, although rarely reaching the heights attained in New Zealand. Unfortunately, from the 1980s, the trees planted in the park and on The Hill began to succumb to a so-far undetermined disease.

Many pohutakawa were planted in the Reserve, many imported by Sharp himself (he recommended 800 in his plan). He stimulated a brisk trans-Tasman trade in these trees and others which he believed would flourish here. In both NZ and Australia Sharp supported the preservation of the native vegetation, but had some unexpected exceptions. He expressed distaste of Australian eucalypts perhaps they did not suit his ideas of an artistic tree. Given his views on the value of preserving native vegetation is surprising that in Australia. He became a champion of exotic New Zealand trees. Perhaps, having observed the extreme conditions in the Upper Reserve he advocated for trees which he was confident would survive and present an attractive appearance. This understanding was based on his knowledge of their success in similar conditions in New Zealand.

Sharp wrote often about the importance of paths in a public park, a network allowing easy access to all parts of the grounds. For an interesting stroll they should be winding with easy grades and wide enough for companionable walking; they should provide access to both the formal sections and to those parts of the park which might be left as 'wild nature'. Sharp had great faith in the restorative powers of nature that such a park would provide.

One can also see that, to a believer in Repton's philosophies of landscape design, how exciting a challenge it was for Sharp to have an opportunity to plan a garden for such a site as the Upper Reserve. Contemporary writers in the Newcastle Morning Herald strongly approved of his plan. His knowledge of horticulture and his awareness of the problems of gardening in adverse conditions and the ways of dealing with those problems gave him valuable skills to manage the Reserve. It is unfortunate that he was not given the opportunity to contribute more to the early establishment and development of the Upper Reserve.

## How the Park Developed

The following examines how the park developed. The many phases of use are discussed as well as particular areas of the park that had a specific purpose.

King Edward Park Headland Reserve is the name given recently to an area of now level land at the top of Watt Street on the prominence on the northern edge of the park. This area of the park is relatively small and was a part of the original grant of land. It offers a great overview of King Edward Park, has been open to visitors and is socially and culturally a significant part of the Park. The area has also been of special significance to the Aboriginal people of the area. The headland, Yi-ran-ni-li means 'the place of falling rocks' reflecting Dreamtime stories of Awabakal people.[16]

The headland became the site of a coal mine, one of the first in Australia. It was probably established by 1817 but perhaps earlier, and continued to the 1830s. The position of the shaft is unclear there has not been a thorough archaeological or heritage assessment of the site to investigate the location. The deep shaft was worked by convicts who carried coal down the hill to the harbour on a wooden railway which ran down along a track which became Watt Street. The mine was later operated commercially by the AA Company (Dates unclear). From 1887 the Borough Council used the mine shaft to dispose of night soil from the city. Accumulation of gases and a workman's lamp caused a loud explosion and much alarm to those living the prestige of The hill.[17] In the same period seepage of night-soil contaminated water from the mine shaft caused pollution of the marshy ground at the bottom of the northern gully (see later)

The Headland was also known as home to a prosperous bowling club and has extensive views over the ocean and shoreline cliffs. There was little development on the headland site until the Newcastle City Bowling club was given a lease in 1890. Over 115 years the Club land constructed three greens and two tennis courts. To level out the site for recreational use the ocean end (east side) required 4000 yards of the land to be filled. A small club house was built on the west side of the lease but was later moved to the south side and progressively enlarged. There were complaints that in these processes public land had been alienated and given to a small exclusive group, but to no effect.[18] For financial reasons the bowling club collapsed. Attempts by various groups, including a commercial enterprise failed to revive the club. In 2005 the government revoked the lease and under regulations relating to the use of coastal reserves opened the headland to commercial development. In 2013 the buildings have been demolished and the area is out of bounds and fenced. Headland reserve has been the subject of disputes between a developer, Newcastle City Council and community groups.

### The Northern Gully- upper section above The Horseshoe

As mentioned earlier immediately to the south of the headland is the northern gully, which begins near the junction of Reserve Road and Bingle Streets. In its natural state the gully drained the surrounding hills into an intermittent water course which ran down between steep slopes to spill over the cliffs onto the rocky ocean shelf. This gully is the most developed part of the Park.

However well before the park began the gully had been used for recreation. In the 1820s Major Morisset, the Commandant of the penal settlement, frequently walked from his quarters at Government House in what would now be Fletcher Park up the hill to the headland and down across the gully to the Bogey Hole. The Bogey Hole is an ocean swimming pool dug by convicts under control of the Commandant. Apparently Morisset was "fond of sea bathing".[19] The path he took was referred to as The Horseshoe. This track was progressively upgraded for foot traffic, for horse and carriage and for motor cars in the twentieth century. It has become a roadway but many people continue to name it as The Horseshoe, a landmark of King Edward Park.

## The Cricket Ground

In 1890 the higher part of the gully was levelled. It was called the 'Cricket Ground' and used. It continues to be used for many leisure activities, including informal games, for picnics and from time to time for concerts and cinema performances. Below the land slopes steeply to the next levelled area, the rotunda lawn. Between the two areas there are plantations of pines which extend around the rotunda lawn. This is where the first plantings took place in the park and where there were attempts to find the most useful trees and shrubs. In the plantation there is the Fountain. Unlike many city parks in Australia King Edward Park has very few monuments. In 1879 the fountain was first, in 1879, placed in Scott Street outside Newcastle Railway station, partly because it was one of the few places in Newcastle with reticulated water. It was described as having drinking troughs for dogs, cattle and horses. It is an imposing monument, more than two metres high and one metre across with several basins and drinking spouts. Its origins are unknown. After reconstruction it was moved to its present site in the Reserve in 1888. It has unfortunately been the object a number of incidents of vandalism. From the fountain area a number of paths radiate, up to Reserve Road, several to The Terrace and up the hill to York Road. The paths reflect the design philosophies of Alfred Sharp. Below the fountain is the curve of York Road' which runs around the western end of Rotunda Lawn, curves around the central prominence then around the western end of the southern gully up to the exit gates at the top of The Terrace.

## The Rotunda Lawn

The Rotunda lawn, which was constructed in the 1890s, is the main ceremonial area on the park. It is a level area of lawn surrounded by steep banks in which now large trees, mostly pines and a few figs have grown to a very large size. In the centre is the Rotunda, "a classic example of a late Victorian structure with its finely moulded iron roof and cast iron lace, placed in an English garden setting". [20] It was built in 1898 and was used for brass band concerts. Rotundas and brass bands have a particular significance for Newcastle, NSW, because in the second half of the 19<sup>th</sup> century it had a large British born population. British custom came to Newcastle, in the naming of many suburbs, in culture and recreation and in the creation of brass bands and the building of rotundas. Brass bands were a creation of early Victorian Britain. In that period brass musical instruments were becoming affordable for members of the working class who were beginning to experience leisure from work. They could afford and were free to perform their music. Brass bands flourished, specifically in the coal-mining areas of the Midlands. Rotundas were built for public performances and competitions were held between the many bands formed. Apart from their leisure bands were seen a socially desirable. The tradition came to Newcastle: Plans for a rotunda in the Upper Reserve featured in a number of park plans, including those of Alfred Sharp.[21]

Until the opening of Civic Park in 1937, Newcastle held its main civic occasions, the festivals, the welcoming of visiting dignitaries, Anzac Day ceremonies and other celebrations on and around the Rotunda lawn. Perhaps the most momentous event occurred in 1911 to mark the coronation of George V. After a day of street marches 20,000 people gathered in King Edward Park to sing the national anthem and other patriotic songs. Today the lawn used for play, for picnics and for weddings.

From the Rotunda lawn steps descends a short terraced slope where there are several varieties of trees, perhaps examples of those trees tried in the park and growing here with varying success. There is also maintenance and workmen's sheds. Then there is the curve of The Horseshoe which encloses a deeper part of the gully running down to the cliffs



The northern gully – Lower section below The Horseshoe. In shaping this part of the Park one perhaps might have expected those responsible to have taken greater advantage of the spectacular terrain, the deep gully with its water course, the steep sides and in the distance the cliffs and the expansive ocean, a vista for an artist. There were problems in gardening here, the steep slopes and the salt laden winds, although this was as better protected area than other parts of the park. There was also the problems of drainage, water normally ran into the sea but was often impeded by silt. The gully drained the surrounding hills and then when houses were built on the hill there was more storm water and even sewerage at times. Storm water from the streets is still piped under the western part of the park into the gully. There was also the period around the 1887 when night soil dumped into the mine shaft on the bowling green site contaminated the water seeping into the gully. Apart from the unpleasant odours citizens were concerned about the health risks.

There were other drainage problems to be dealt with. With swimming becoming popular, the Council enlarged the Bogey Hole in 1884 and wanted to make it more accessible from the city. A path was constructed from Newcastle beach along the base of the cliffs and another down from Watt Street. To allow the flow of water bridges were built over the two water courses, the one from the northern gully and the other that curves around the middle prominence from the southern gully. In the 1930s there was the extension of Shortland Esplanade to the Bogey Hole, a road which had to be built up with filling, which again interfered with drainage. Sumps were dug and water piped under the road to carry it to the cliff, but siltation was and still is a problem.

In his plans Alfred Sharp had an ambitious plan for the low northern gully. He designed a series of three dams each 10 feet high and 80 feet long and 10 feet deep at the lower end. They formed three ponds a half to one and a half chains long and thirty five feet wide. They would be stocked with fish and planted with water lilies. The southern protected side of the gully would be "thickly planted with hanging woods ... with paths winding in and out amongst the trees...that is, if the right kind are planted." [22] Sharp recommended the pohutakawa.

However despite the opportunity offered, a later gardener chose to create flower beds in the gully in 'U' of The Horseshoe. Although flower beds were conventional decorations in many Victorian parks, the result would not have pleased Sharp, it was not natural. In the 1920s after filling with large amounts of soil the resulting level area was planted with lawn and ten separate flower beds created. They have long provided a bright display of annuals for short periods each year interspersed with long periods when the beds are largely bare. They require much labour for maintenance, an increasing problem in times of Council austerities. These are the Garside Gardens named after an earlier head gardener.

Below the Garside Gardens as the gully slopes down much effort has been spent in dealing with the problems of the drainage as well as trying to make the area attractive and accessible to the public. Recently the Council has created an artificial water course lined with large boulders and in its course built several storage ponds. Reeds and other water plants have been planted. At the lower end the soil is still marshy, although the flow of water is moderated. Here it has been planted with native grasses, shrubs and trees. There is then a large sump to catch water and convey it by pipes under Shortland Esplanade.

In 2004 this sides of the lower part of the gully were further modified by terracing and by filling, processes which were severely criticised, because they changed the natural appearance. It was a convenient step for the Council. The nearby cliff overlooking the Bogey Hole had to be reduced in height to reduce the risk of boulders falling into the pool. The spoil from the excavation, the rocks and soil, was dumped into the gully, a cheap method of disposal. This action prompts the need for a proper plan of development for King Edward Park, and reminds us that such a plan has never been produced.

## The southern gully

The southern gully is wide with gentler slopes than those of the northern gully. The mouth is widely open to the ocean so that it is a windswept area. It also has an intermittent water course flowing down it but now there is only a soakage area at the bottom. From here accumulated storm water is carried under York Drive to a small ravine which runs northwards, between the middle prominence and a cliff-side ridge, to near a sump near the Bogey Hole where it enters the sea via a pipe. In this ravine the flow of water is slowed and absorbed by a mixture of natural and planted native shrubs and grasses, which are now growing strongly, reducing erosion. Their vigorous growth demonstrates the benefits of the protection provided by the adjacent seaward ridge. Before human intervention the outflow from the southern gully flowed down this water course to enter the sea not far from the outflow of the northern gully.

The main southern gully and the surrounding hillsides are mostly covered with native grasses, largely *Themeda australis*, a short, clumping reddish green grass. Before European settlement this grass was widely distributed along the NSW coast. Now in King Edward Park there are about four hectares of it and one of the few areas left in NSW and thus of heritage significance. There is the occasional stunted tree the results of earlier plantings, and under the protecting brow of the top of Shepherds Hill on the southern wall of the gully a group of trees and shrubs and grasses, *Acacia sophorae*, *Banksia integrifolia*, *Westringia ruiticosa* and *Lomandra longifolia* have been planted. They are growing well and are self-seeding, reflecting their protected position, their planting in dense clumps and that they are native to the coast. At the top of the gully, along The Terrace is a row of well-grown palm trees in their position they are partly shielded from the wind as well as having a degree of salt tolerance. Apart from the plantings mentioned and roads and paths (the Bather's Walk crosses it) the southern gully has been little developed. It attracts walkers, children and free-roaming dogs.

At the top of the southern gully, where York Road enters The Terrace are two sand stone pillars, all that remains of the four pillars and ornate wrought iron gates which marked the original entrance to the reserve at the top of Watt Street. With the coming of motor cars that position proved dangerous, they could easily run over a cliff. The gates were moved further up Ordnance street and then to their present position. Mr Joseph Wood, a brewer and prominent citizen, donated the gates in 1907.

## Arcadia Park

Arcadia Park (it was given that name to honour an American sister city) is and always has been part of King Edward Park, although separated from the main part by road, Reserve Road and the continuation of Wolfe Street. The park is a small triangular parcel of land to the west of Wolfe Street. It is an area where plants will thrive because it slopes downwards away from the prevailing winds but has largely been neglected until the 1970. For a time it contained a quarry. Alfred Sharp suggested only planting trees there but no other improvement, they would come later. However in 1978 the Newcastle Council landscaped the area and planted a large number of trees, which have flourished. It is an area which is little used but could be a valuable adjunct to the main park.[23]

## The Bogey Hole

The Bogey Hole, the ocean swimming pool in King Edward Park, sits in the rock shelf below the cliffs at the bottom of the northern gully. Convicts gouged the pool out of the rocks on the ocean shelf in about 1820 for the personal use of Major Morisset, the Commandant of the colony of Newcastle from 1818 to 1823. The pool was first called Morisset's or the Commandant's baths but

later the Bogey Hole, a name believed to be related to an aboriginal term 'to bathe'. There have been suggestions that the excavations made use of a previously existing cavity in the rocks, perhaps made by aborigines, but there is no confirmatory evidence.

In the 1850s an English traveller, John Askew visited the Bogey Hole on several occasions for a swim. "I have stood upon these rocks and listened to the hoarse voice of the ocean, while lashed into fury by the north-east wind, and have been awed by the thundering sound of its seething waters, as I never have by any of the awe-inspiring phenomena of nature. The feelings awakened by this majestic scene are indescribable: and I never stand on any spot which so heightened the impressiveness of a scene so terribly sublime".

In 1863 the Newcastle Council assumed control of the Bogey Hole and made the pool accessible to the public, but at first only by males. It became the most popular site for sea bathing in Newcastle. Newcastle was endeavouring to acquire an image of a holiday resort. In 1884, responding to public demand for more facilities for safe sea bathing the Council enlarged the Bogey hole to about seven times of its previous size, still irregular in shape and approximately 105 feet long and 50 broad and sloping from five and a half feet deep to three and a half. Steel stanchions and chain were placed on the ocean side for safety. The surroundings of the pool were tidied and access to an almost inaccessible place improved by cutting broad steps in the rock. In the cave in the cliff behind the pool better provision was made for changing where a caretaker provided clean towels. "The Bogey hole has been metamorphosed into one of the finest swimming baths in NSW, we might almost say, about the finest in Australia, and challenge contradiction." [24] In 1911 after receiving a petition from 199 women, the Council permitted women to use the baths on certain days of the week. [25] Over the years changing rooms have been built above the pool and on the entrance path, and demolished, sometimes by falling boulders.

With their increasing popularity the City Council made it easier to get from the city to the Bogey Hole a path with a series of steps was formed from the Reserve near the Hospital for the Insane down to a path running over two bridges across the mouth of the northern gully. Past the Bogey Hole the path, a sidling track continued along the cliffs to what was known as the gulf bathing place. [26]

The Bogey Hole is one of the earliest visible artefacts of European occupation in Newcastle. It is still used by bathers and much visited by tourists. It has recently (June 2013) been refurbished.

### The Shepherds Hill defence installation

On top of Shepherd's Hill to which the name Khantarin has been applied, on the southern boundary of King Edward Park, is the heritage recognised defence installation. It contains the remains of a sunken gun emplacement for a 9-inch disappearing gun, and related range finding bunkers dating from 1890. They were constructed to meet fears of Russian incursion. At the same time the Gunner's Cottage, which now house the Marine Rescue group was built to accommodate the troops who manned the gun. The other prominent structure is the reinforced concrete tower which was built in the early 1940s to defend the port of Newcastle against Japanese attack. The tower, now disused, included the control post for a string of defence positions which extended from Port Stephens to Redhead. It also had observation and communication functions and there was a large radar antenna on the roof. There were two guns mounted nearby; a 6 inch gun emplacement on the cliff on Strezlecki Lookout, and an emplacement of the central prominence in the Park. On the cliff below the bowling-green site was a concrete searchlight bunker and behind it the engine room which housed the generator for the light remains of both still exist.

The Shepherds Hill defence offers existing evidence of changing approaches to the land' based coastal defence systems in NSW. The site is used often for picnics and wedding parties. The Bathers Track which runs through the site brings many visitors.

### The Obelisk Hill

The Obelisk Hill is situated on the northern edge of King Edward Park. It was originally contiguous with the rest of the main park area but was separated by the construction of Reserve Road in the 1880s. On the other sides of the Hill are Ordnance Street and Wolfe Streets (extended in 1870s). Inside the triangle of roads the Obelisk Hill is surrounded on three sides by rocky cliffs, which emphasis its height which provides 360 degree panoramic views of the city, the ocean and the rest of the Park. On the top is the Obelisk, a typical tapering monolith. It was built in 1850 to commemorate the Government Flour Mill, a brick and stone structure, a windmill, with huge Dutch sails, which was built in 1820 at the instigation of Major Morisset the commandant of the penal colony. There was shortage of food in the colony and while he did not want to reward the convict by providing too much food, they had to have sufficient to mine the coal without getting sick or dying. The mill met the needs until flour became available from other sources in the Hunter Valley. The Mill, with its height and distinctive shape became a valuable navigation aid for mariners entering the difficult passage to Newcastle Harbour. When the mill was demolished in the 1850s, as obsolete, on orders from the Government in Sydney navigators and ship owners demanded a suitable replacement so the Obelisk was built. Despite lightning strikes and earthquakes, the Obelisk remains today as a tourist attraction and a reminder of Newcastle's harsh convict origins and of the importance to Newcastle of shipping and the coal trade.

The park is an amazing part of our coastline, and unique because of its diverse heritage. Today it continues a much loved place to spend time with friends and family, a short walk from urban spaces and a park that has many stories to tell.

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## 12.14 Appendix N - S118 NSW Heritage Act Minimum Standards of Maintenance and Repair

# **HERITAGE INFORMATION SERIES**

## **MINIMUM STANDARDS OF MAINTENANCE AND REPAIR**



NSW  
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### Front cover graphics:

Aboriginal hand stencils, South Coast. *Photograph courtesy of National Parks and Wildlife Service*

Interior of Belltrees shearing shed, built near Scone in NSW in 1879 by architect J. Horbury Hunt.

Artefacts from the site of first Government House Archaeology Collection. *Photograph courtesy of Museum of Sydney on the site of first Government House*

Grose Valley, Blue Mountains, NSW. *Photograph courtesy of NSW National Parks and Wildlife Service*

### Back cover graphics:

Australia Square, Sydney

Entrance to the central temple, Sze Yup Temple, Glebe. *Photograph by Karl Zhao*

Lands Department Building, Sydney

The bow of iron steamer, *Merimbula*, wrecked near Currarong in 1928. *Photograph by David Nutley*

Snowy Mountains Scheme. *Photograph courtesy of the Snowy Mountains Hydro-electric Authority*

St Mark's Anglican Church, Darling Point, Sydney. *Photograph by Stuart Humphreys*

Belltrees Shearing Shed, near Scone, NSW.

Detail from the crypt floor of St Mary's Cathedral, Sydney. *Photograph courtesy of St Mary's Cathedral*

## MINIMUM STANDARDS FOR MAINTENANCE AND REPAIR

Major amendments to the Heritage Act 1977 passed both houses of State Parliament and came into effect on 2 April 1999. The changes are the result of substantial review of the NSW heritage system.

One of the changes in policy reflected in the new legislation is the establishment of Minimum Standards. Since the original Heritage Act was passed in 1977 the “wilful neglect” provisions had been ineffective in preventing the deterioration of heritage items. In the twenty years of its operation there were no successful prosecutions under this section of the Act.

The section has therefore been deleted and replaced. Owners of items listed on the **State Heritage Register** are now required to ensure that heritage significance is maintained. Owners are required to achieve minimum standards of maintenance and repair.

The standards are set out in the Regulation, and relate to:

- weatherproofing;
- fire protection;
- security; and
- essential maintenance.

These are minimum standards to ensure that heritage significance is maintained. They do not require owners to undertake restoration works, but where works are needed owners may be eligible to apply for financial assistance through the Heritage Incentives Program.

Where these standards are not met and the heritage significance of the item is in jeopardy the Heritage Council will now have the power to order repairs after consultation with the owner.

As a last resort, if negotiations have failed and the owner does not comply with the order, the Heritage Council can arrange for the works to be carried out and charge the expenses to the owner. The Minister may consent to the Heritage Council's prosecution of the owner for failure to comply with an order under this section of the Act.

A copy of the *Heritage Amendment Regulation 1999*, extracted from the New South Wales Government Gazette No.27, 1999, pages 1 – 9, is included for your information.

### **What is the State Heritage Register?**

Heritage places and items of particular importance to the people of New South Wales are listed on the State Heritage Register. The Register was created in April 1999 by amendments to the *Heritage Act 1977*.

The key to listing on the State Heritage Register is the level of significance. Only those heritage items which are of **state significance in NSW** are listed on the State Heritage Register.

The Register replaces the old system of permanent conservation orders as a means of listing items of state significance

The Register forms part of the State Heritage Inventory, an electronic database of all protected heritage items in New South Wales. To check whether an item is listed on the Register, consult the **State Heritage Inventory** on the internet through the Heritage Office home page: **[www.heritage.nsw.gov.au](http://www.heritage.nsw.gov.au)**



New South Wales

# Heritage Regulation 2012

under the

Heritage Act 1977

Her Excellency the Governor, with the advice of the Executive Council, has made the following Regulation under the *Heritage Act 1977*.

ROBYN PARKER, MLC  
Minister for Heritage

## Explanatory note

The object of this Regulation is to remake, with some amendments, the *Heritage Regulation 2005*, which is repealed on 1 September 2012 by section 10 (2) of the *Subordinate Legislation Act 1989*.

This Regulation:

- (a) prescribes the fees that are to accompany certain applications under the *Heritage Act 1977 (the Act)*, and
- (b) prescribes the form for a certificate of authority under section 148 (1) of the Act, and
- (c) makes provision in relation to the determination of fees for the review of conservation management plans, and
- (d) makes provision for the minimum standards with respect to the maintenance and repair of buildings, works and relics that are listed, or are within a precinct that is listed, on the State Heritage Register, and
- (e) makes provision for the minimum standards for the maintenance of ruins and moveable objects that are listed on the State Heritage Register, and
- (f) prescribes the time period within which the Planning Assessment Commission is to conduct any review (of a recommendation that an item be listed on the State Heritage Register) that is referred to the Commission by the Minister, and
- (g) prescribes classes of items of the environmental heritage that are required to be entered in Heritage and Conservation Registers, and
- (h) makes provision for savings and transitional matters.



## **2012 No 401**

Heritage Regulation 2012

Explanatory note

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This Regulation is made under the *Heritage Act 1977*, including section 166A, section 165 (the general regulation-making power) and various other sections referred to in the Regulation.

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## 2012 No 401

Clause 1            Heritage Regulation 2012

Part 1             Preliminary

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## Heritage Regulation 2012

under the

Heritage Act 1977

### Part 1   Preliminary

#### 1   Name of Regulation

This Regulation is the *Heritage Regulation 2012*.

#### 2   Commencement

This Regulation commences on 1 September 2012 and is required to be published on the NSW legislation website.

**Note.** This Regulation replaces the *Heritage Regulation 2005* which is repealed on 1 September 2012 by section 10 (2) of the *Subordinate Legislation Act 1989*.

#### 3   Definitions

(1)   In this Regulation:

*ruin* has the same meaning as it has in section 118 of the Act.

*the Act* means the *Heritage Act 1977*.

(2)   Notes included in this Regulation do not form part of this Regulation.

## Part 2 Fees and forms

### 4 Prescribed fee for application for approval

- (1) For the purposes of section 60 of the Act, the prescribed fee that is to accompany an application for approval to carry out an activity referred to in section 57 (1) (a)–(h) of the Act is:
  - (a) \$150, if the estimated cost of carrying out the activity is \$100,000 or less and the activity is in relation to an owner-occupied private dwelling, or
  - (b) \$300, if the estimated cost of carrying out the activity is \$100,000 or less and the activity is not in relation to an owner-occupied private dwelling, or
  - (c) \$400 plus \$25 for each \$100,000 (or part \$100,000) of the estimated cost of carrying out the activity, if the estimated cost of carrying out the activity is more than \$100,000 but no more than \$500,000, or
  - (d) \$500 plus \$100 for each \$100,000 (or part \$100,000) of the estimated cost of carrying out the activity, if the estimated cost of carrying out the activity is more than \$500,000 but no more than \$1,000,000, or
  - (e) \$1,000 plus \$50 for each \$100,000 (or part \$100,000) of the estimated cost of carrying out the activity, if the estimated cost of carrying out the activity is more than \$1,000,000 but no more than \$2,000,000, or
  - (f) \$1,500 plus \$33.33 for each \$100,000 (or part \$100,000) of the estimated cost of carrying out the activity, if the estimated cost of carrying out the activity is more than \$2,000,000 but no more than \$5,000,000, or
  - (g) \$2,500 plus \$10 for each \$100,000 (or part \$100,000) of the estimated cost of carrying out the activity, if the estimated cost of carrying out the activity is more than \$5,000,000 but no more than \$10,000,000, or
  - (h) \$3,000 plus \$10 for each \$100,000 (or part \$100,000) in excess of \$10,000,000, if the estimated cost of carrying out the activity is more than \$10,000,000.
- (2) The estimated cost of carrying out an activity is the reasonable cost (estimated on the basis of prices current when the application is made) of carrying out the activity as referred to in the application.



## 2012 No 401

Clause 5                      Heritage Regulation 2012

Part 2                        Fees and forms

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### 5    Prescribed fee for excavation permit application

- (1) For the purposes of section 140 (2) of the Act, the prescribed fee that is to accompany an application for an excavation permit is:
  - (a) \$100, if the estimated cost of carrying out the development to which the excavation relates is \$100,000 or less, and the development is in relation to an owner-occupied private dwelling, or
  - (b) \$250, if the estimated cost of carrying out the development to which the excavation relates is \$100,000 or less, and the development is not in relation to an owner-occupied private dwelling, or
  - (c) \$500, plus \$10 for each \$100,000 in excess of \$100,000, if the estimated cost of carrying out the development to which the excavation relates is more than \$100,000.
- (2) The estimated cost of carrying out a development is the reasonable cost (estimated on the basis of prices current when the application is made) of carrying out the development as referred to in the application.

### 6    Prescribed form for certificate of authority

For the purposes of section 148 (1) of the Act, the prescribed form for a certificate of authority is Form 1 in Schedule 1.

### 7    Application fee for evidentiary certificate

For the purposes of section 167 (1) of the Act, the prescribed fee is \$100.

### 8    Fee for certain reviews of conservation management plans

- (1) The Director-General of the Department of Premier and Cabinet (or a delegate of the Director-General) may, from time to time, determine the fees payable for the review of conservation management plans.
- (2) The Director-General of the Department of Premier and Cabinet (or a delegate of the Director-General) may determine different fees for the review of different conservation management plans, having regard to the costs incurred in conducting the review (whether the review is conducted by members of staff of the Office of Environment and Heritage or by other persons engaged for that purpose).
- (3) In determining the fees payable under this clause, the Director-General of the Department of Premier and Cabinet (or a delegate of the Director-General) may include a component (a *public notice component*) to cover the reasonable costs (including any administrative costs) incurred by the Heritage Council in causing public notice of the review of a conservation management plan to be given.

- 
- (4) The Heritage Council may charge an affected owner the fee determined under this clause for the review of a conservation management plan if:
- (a) the review is requested by the affected owner, or
  - (b) the review is for the purpose of the Heritage Council's endorsement of the plan and the endorsement is requested by the affected owner.
- (5) A request for a review of a conservation management plan in respect of which a fee is payable under this clause must be accompanied by the applicable fee.
- (6) However, if the fee payable under this clause includes a public notice component, that component is payable within 30 days after written notification of the amount due for the component is given to the affected owner concerned.
- (7) A fee is not payable under this clause for the review of a conservation management plan that is undertaken in the process of determining an application for an approval to carry out an act, matter or thing referred to in section 57 (1) of the Act.
- (8) In subclauses (1)–(5), a reference to a **conservation management plan** includes a reference to a preliminary or draft conservation management plan.

## **2012 No 401**

Clause 9                      Heritage Regulation 2012

Part 3                        Minimum standards of maintenance and repair

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### **Part 3    Minimum standards of maintenance and repair**

#### **Division 1        Buildings, works and relics**

##### **9    Minimum standards imposed**

- (1) Pursuant to section 118 (1) of the Act, the standards set out in this Division are imposed as minimum standards with respect to the maintenance and repair of a building or work (other than a ruin) or a relic that is listed or within a precinct that is listed on the State Heritage Register.
- (2) Nothing in this Division affects any requirement for the approval under Part 4 of the Act of any aspect of maintenance or repair.
- (3) A conservation management plan endorsed by the Heritage Council for a building, work or relic may:
  - (a) provide that a standard set out in this Division does not apply to the building, work or relic (in which case the standard does not apply to it), or
  - (b) provide for additional standards of maintenance and repair for the building, work or relic (in which case those standards are imposed as additional minimum standards with respect to the maintenance and repair of the building, work or relic, in addition to those set out in Division 2).

**Note.** Section 119 of the Act requires the owner of the building, work or relic to ensure that it is maintained and repaired to standards that are not less than the minimum standards imposed by this Division.

##### **10   Weather protection**

- (1) The following systems or components, if present, must be maintained and repaired (including by being cleaned and secured) to the standard necessary to ensure a reasonable level of protection for the building, work or relic, and its curtilage or site, against damage or deterioration due to weather:
  - (a) surface and sub-surface drainage systems,
  - (b) roof drainage systems, including gutters, rainwater heads, down-pipes and stormwater drainage systems,
  - (c) water storages, dams, ponds, retention basins, watercourses, batters, levee banks, sea walls and other flood and erosion mitigation measures,
  - (d) roofs, walls, doors and windows (including the glass components of doors and windows) and other components intended to exclude sun, rain, wind, hail, snow or other weather elements, including their security against the effects of high winds,

- 
- (e) systems or components which might be at risk of damage or dislodgment by high winds, including damage by falling trees and branches, tidal inundation or wave action,
  - (f) systems and components such as damp proof courses, flashings, ventilation systems and other measures intended to prevent the ingress of water or dampness or to reduce its effects,
  - (g) lightning conductors,
  - (h) any other system or component designed to protect the building, work or relic or its curtilage or site against damage or deterioration due to weather.
- (2) Doors and windows of a building may, as an alternative to being repaired, be boarded up, but only:
- (a) if the building is unoccupied, or
  - (b) as a short term measure pending repair.
- (3) If an opening to a building is designed or intended to have a door, window or other closure in place and does not have the door, window or other closure in place, the opening must be boarded up.

#### 11 Fire protection

- (1) Vegetation, rubbish and any other material that could create a fire hazard for the building, work or relic is to be removed and not permitted to accumulate.
- Note.** Vegetation and other items can be of heritage significance, and their removal may require the approval of the Heritage Council or the local council.
- (2) The following systems or components, if present, must be maintained and repaired to the standard necessary to ensure a reasonable level of protection for the building, work or relic against damage or destruction by fire:
- (a) lightning conductors,
  - (b) fire detection and control systems, including smoke and heat detectors and fire sprinkler systems and including associated alarm and communication systems,
  - (c) stores of inflammable materials or rubbish,
  - (d) building services such as electricity, gas and heating systems,
  - (e) any other system or component designed to protect the building, work or relic from damage or destruction by fire.



## **2012 No 401**

Clause 12      Heritage Regulation 2012

Part 3          Minimum standards of maintenance and repair

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### **12 Additional fire protection for unoccupied buildings**

- (1) The following additional fire protection measures must be taken for the protection of a building that is to be unoccupied for a continuous period of 60 days or more:
  - (a) heating or gas services must be shut down, gas or oil supply to those services must be turned off at the mains or other point of connection to supply, and portable gas or oil storages must be removed,
  - (b) permanent or temporary smoke detection systems must be installed with associated communication systems connected to the fire brigade in the district and, if the building will be unoccupied for a period of 6 months or more, provided with a permanent power supply.
- (2) This clause does not apply to any outbuilding within the curtilage or site of a building unless the outbuilding has been constructed or adapted for use as a dwelling.
- (3) The use of a building for storage of goods or materials does not constitute occupation of the building for the purposes of this clause if the building ordinarily has another use or is a building of a kind not ordinarily used for storage.

### **13 Security**

- (1) Fencing or surveillance systems appropriate to the nature and location of the building, work or relic must be installed to secure it and its site and prevent vandalism.
- (2) The following systems or components, if present, must be maintained and repaired to the standard necessary to ensure a reasonable level of security for the building, work or relic:
  - (a) boundary and internal fences and gates, including associated locking mechanisms,
  - (b) in the case of a building, the walls, roof and other building elements, doors, windows and other closures, including glazing and associated locking and latching mechanisms,
  - (c) any electronic surveillance or alarm system installed on the site,
  - (d) any other system or component designed to ensure the security of the building, work or relic.
- (3) Doors and windows of a building may, as an alternative to being repaired, be boarded up, but only:
  - (a) if the building is unoccupied, or
  - (b) as a short term measure pending repair.

- 
- (4) If an opening to a building is designed or intended to have a door, window or other closure in place and does not have the door, window or other closure in place, the opening must be boarded up.

**14 Additional security measures for unoccupied buildings**

- (1) The following additional security measures must be taken for the protection of a building that is to be unoccupied for a continuous period of 60 days or more:
  - (a) if an electronic surveillance or alarm system is installed, the system must be connected to a police station or a commercial security provider,
  - (b) if no electronic surveillance or alarm system is installed, arrangements must be in place for regular surveillance of the building, work or relic, as appropriate to its nature and location.
- (2) This clause does not apply to any outbuilding within the curtilage or site of a building unless the outbuilding has been constructed or adapted for use as a dwelling.
- (3) The use of a building for storage of goods or materials does not constitute occupation of the building for the purposes of this clause if the building ordinarily has another use or is a building of a kind not ordinarily used for storage.

**15 Essential maintenance and repair**

- (1) Essential maintenance and repair of a building, work or relic (being maintenance and repair necessary to prevent serious or irreparable damage or deterioration) must be carried out whenever necessary.
- (2) Essential maintenance and repair includes:
  - (a) the taking of measures (including inspection) to control pests such as termites, rodents, birds and other vermin, and
  - (b) the taking of measures to maintain a stable environment for in-situ archaeological relics.
- (3) The requirement for essential maintenance and repair extends to (but is not limited to) the following:
  - (a) foundations, footings and supporting structure of any building, work or relic,
  - (b) structural elements such as walls, columns, beams, floors, roofs and roof structures, and verandah or balcony structures,
  - (c) exterior and interior finishes and details,
  - (d) systems and components (such as ventilators or ventilation systems) intended to reduce or prevent damage due to dampness,

## 2012 No 401

Clause 16            Heritage Regulation 2012

Part 3                Minimum standards of maintenance and repair

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- (e) fixtures, fittings and moveable objects attached to the building, work or relic, or to its curtilage or site,
- (f) landscape elements on the site of and associated with the building, work or relic, including vegetation, garden walls, paths, fences, statuary, ornaments and the like.

### Division 2        Ruins and moveable objects

#### 16    Minimum standards imposed

- (1) Pursuant to section 118 (2) and (3) of the Act, the minimum standards for the maintenance of a ruin or moveable object that is listed on the State Heritage Register are the minimum standards (if any) listed on the Register in accordance with this Division in relation to the ruin or moveable object.
- (2) Nothing in this Division affects any requirement for the approval under Part 4 of the Act of any aspect of maintenance.

#### 17    Procedure for listing of minimum standards on Register

- (1) The Heritage Council may list minimum standards on the State Heritage Register in relation to a specified ruin or moveable object that is listed on the State Heritage Register (whether listed before or after the commencement of this Regulation) in accordance with this clause.
- (2) Such a listing may be made at the same time that the item, in relation to which the minimum standards relate, is listed on the State Heritage Register or at any time after the item is listed.
- (3) Before listing any minimum standards on the State Heritage Register, the Heritage Council must follow this procedure:
  - (a) the Heritage Council is to give notice that it is going to consider the listing of the minimum standards concerned (a *notice of intention to consider listing of standards*) by written notice given to each person that it considers to be an affected owner or occupier, and
  - (b) within 14 days after notice of intention to consider listing of standards is given under paragraph (a), the Heritage Council is to cause a notice of intention to consider listing of standards to be published in at least one newspaper circulating in the area in which the item is situated, and
  - (c) a notice of intention to consider listing of standards is to invite submissions on the listing and is to specify a date as the closing date for the receipt of submissions (being a date that is at least 28 days after publication of the newspaper notice) and the manner in which submissions may be made, and

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- (d) the Heritage Council is to consider the submissions that are received before the closing date for receipt of submissions and is to decide whether or not to list the minimum standards on the State Heritage Register, and
  - (e) the Heritage Council is to give notice of its decision in the same manner as it is required to give notice of its intention to consider listing of standards under paragraph (a) and is also to give notice to the council of the area in which the item is situated and to each of the persons who made submissions that were considered.
- (4) If the Heritage Council's decision is to list the minimum standards on the State Heritage Register, the Heritage Council is to cause notice of the listing to be published in the Gazette.
  - (5) A listing of minimum standards takes effect on the date of publication of the notice of listing in the Gazette.
  - (6) Without limiting any other matter it may consider in determining whether to list minimum standards, the Heritage Council must consider the following:
    - (a) whether the listing of standards would render the item incapable of reasonable or economic use,
    - (b) whether the listing of standards would cause undue financial hardship to the owner, mortgagee or lessee of the item or the land on which the item is situated.
  - (7) This clause applies to the amendment or revocation of a minimum standard listed on the State Heritage Register in the same way as it applies to the listing.

#### **18 Enforcement of minimum standards**

- (1) The following provisions are extended to any minimum standards for the maintenance of a ruin or moveable object:
  - (a) in the case of a ruin—sections 119–122 of the Act,
  - (b) in the case of a moveable object—sections 119–120N of the Act.
- (2) For that purpose:
  - (a) a reference in section 119, 120, 120E, 120F, 120G, 120I, 120M or 120N of the Act to a building, work or relic listed on the State Heritage Register includes a reference to a ruin or moveable object listed on the Register, and
  - (b) a reference in section 119 or 120 of the Act to the minimum standards imposed by the regulations includes a reference to any minimum standards listed on the State Heritage Register in relation to a ruin or moveable object, and



## 2012 No 401

Clause 19      Heritage Regulation 2012

Part 3          Minimum standards of maintenance and repair

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- (c) a reference in section 121 of the Act to a building or work the subject of an order under section 120 of the Act includes a reference to a ruin the subject of an order under that section.

### Division 3      Inspections

#### 19    Owner to arrange inspections

- (1) The owner of a building or work (other than a ruin) or a relic must, in accordance with this Division, arrange for the building, work or relic, and its curtilage or site, to be inspected to identify maintenance and repairs that are needed to ensure compliance with section 119 of the Act in respect of the standards set out in Division 1.
- (2) The owner of a ruin or moveable object must, in accordance with this Division, arrange for the ruin or moveable object, and its curtilage or site, to be inspected to identify maintenance and repairs that are needed to ensure compliance with section 119 of the Act in respect of the standards imposed in accordance with Division 2.
- (3) An inspection must be carried out:
  - (a) in the case of the standards set out in clauses 10–14—at least once every 12 months, and
  - (b) in the case of the standards set out in clause 15—at least once every 3 years, and
  - (c) in the case of standards imposed in accordance with Division 2—within the time period (if any) specified in the relevant listing, and
  - (d) in any case—whenever reasonably requested by the Heritage Council.

**Note.** The maintenance and repair requirements of section 119 of the Act are ongoing and are not limited to matters identified by an inspection carried out for the purposes of this clause.

- (4) The inspection is to be carried out by a person with expertise and experience appropriate to the nature of the item concerned.
- (5) In the case of a relic kept in a repository or as part of a collection, the inspection is to extend to the conditions under which the relic is kept.
- (6) In the case of a relic that is attached to or forms part of land, the inspection is to include an assessment of the stability of the site of the relic.

#### 20    Inspection reports

- (1) An owner must provide the Heritage Council with an inspection report within 2 months from the date of an inspection if the Heritage Council

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notifies the owner that such a report is required before the inspection is carried out.

- (2) In this clause, an *inspection report* means a report that:
- (a) includes details of any problems, faults or other matters that have been identified during the inspection to which the report relates and that give rise to a requirement to carry out maintenance and repair work (in order to meet the relevant minimum standards), and
  - (b) includes details of the type of work that is required to meet the relevant minimum standards in relation to any such problem, fault or other matter, and
  - (c) is prepared and signed by the person who carried out the inspection to which the report relates.

## 2012 No 401

Clause 21      Heritage Regulation 2012

Part 4          Miscellaneous

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### Part 4      Miscellaneous

#### 21      Time period for review of recommendation for listing

For the purposes of section 34 (1A) of the Act, the time period within which the Planning Assessment Commission is to conduct its review and provide a report to the Minister is 3 months.

#### 22      Items to be included in Heritage and Conservation Registers

- (1) The following classes of items of the environmental heritage are prescribed for the purposes of section 170 (4) (a) of the Act:
  - (a) items that are listed as heritage items under an environmental planning instrument made under the *Environmental Planning and Assessment Act 1979*,
  - (b) items that are subject to an interim heritage order,
  - (c) items that are listed on the State Heritage Register,
  - (d) items identified by the government instrumentality concerned as having State heritage significance.
- (2) A government instrumentality must, for the purposes of identifying an item under subclause (1) (d), have regard to the criteria approved by the Minister under section 4A of the Act for the making of decisions as to whether or not an item is of State heritage significance.
- (3) An entry in a Heritage and Conservation Register of a government instrumentality relating to an item of a class referred to in subclause (1) (a) or (b) must include the item's name, location and the name of the local government area in which it is situated.
- (4) An entry in a Heritage and Conservation Register of a government instrumentality relating to an item of a class referred to in subclause (1) (c) or (d) must be in the form approved by the Director-General of the Department of Premier and Cabinet (or a delegate of the Director-General).

#### 23      Saving

Any act, matter or thing that, immediately before the repeal of the *Heritage Regulation 2005*, had effect under that Regulation continues to have effect under this Regulation.

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**Schedule 1      Form**

(Clause 6)

**Form 1      Certificate of authority**

(Heritage Act 1977, section 148)

Name:

I certify that the above-named person has been authorised, pursuant to section 148 (1) of the *Heritage Act 1977*, to carry out inspections of buildings, works, relics, moveable objects and places for the purposes of that Act.

Signature:

Minister for Heritage





## 12.15 Appendix O - Origins of King Edward Park, Hunter Living Histories Website, 31 August 2012

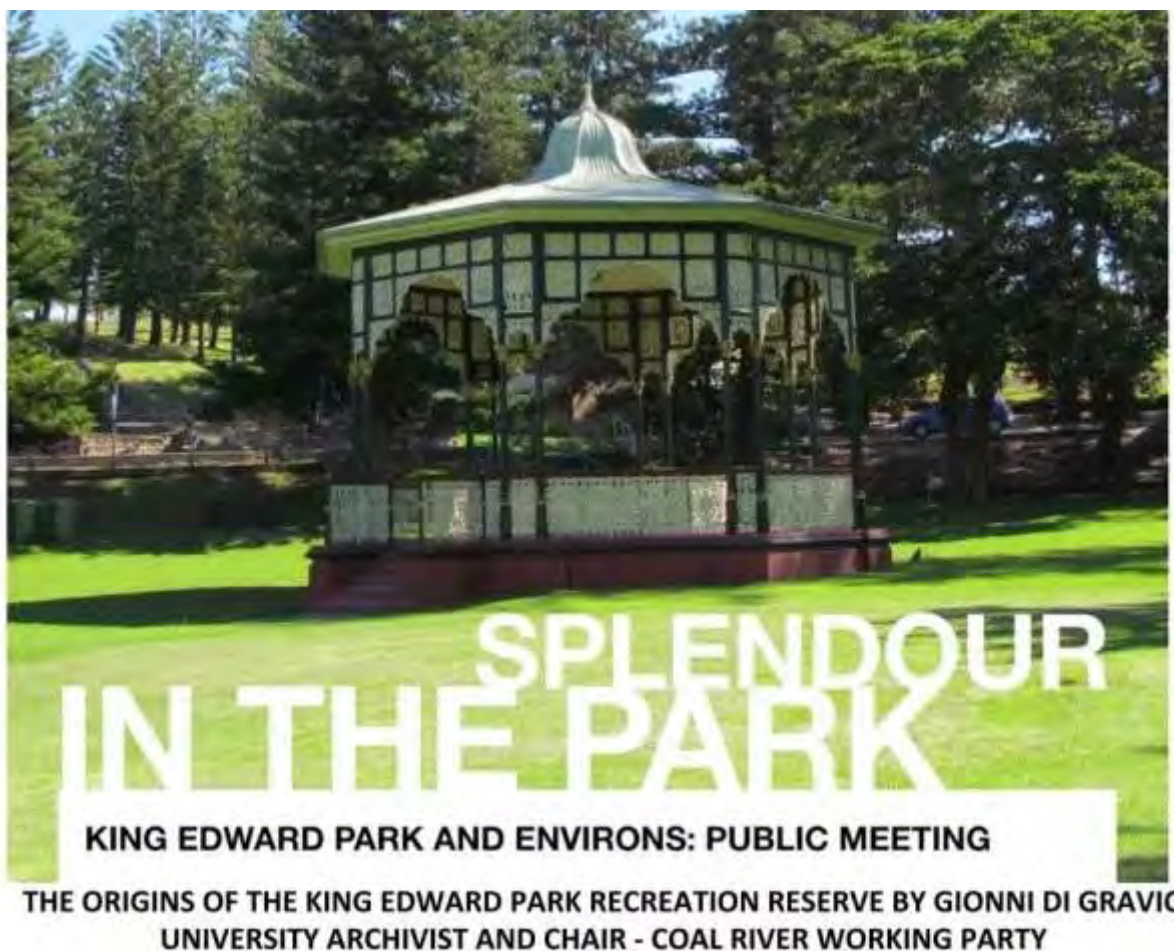
# Hunter Living Histories

University of Newcastle (Australia)

*Menu*

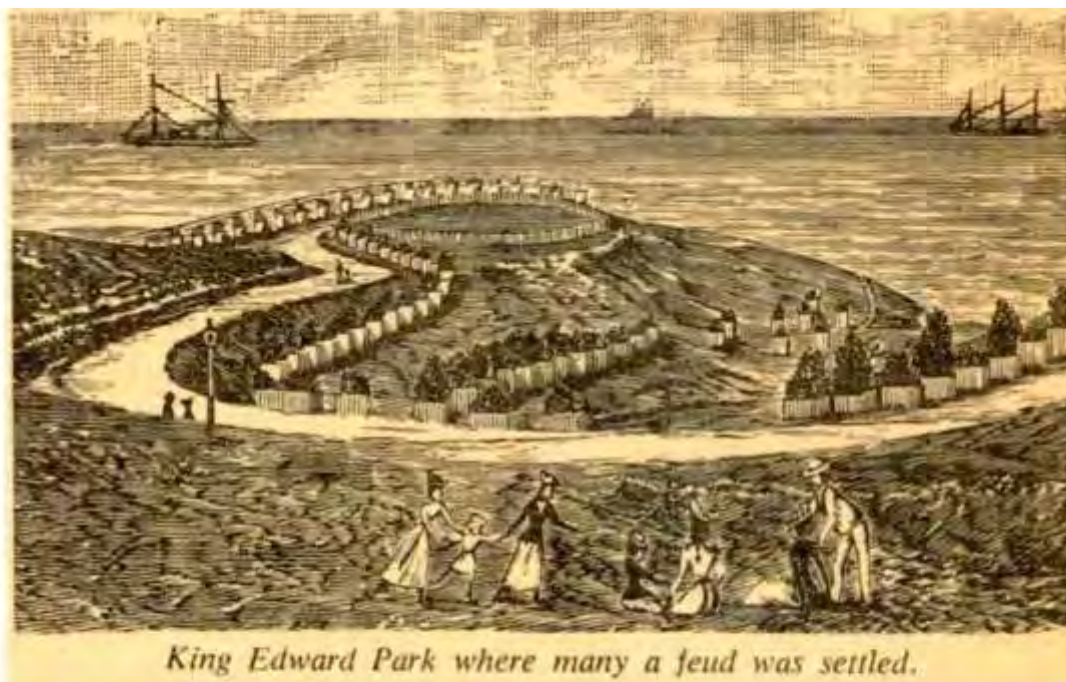
## Origins of King Edward Park

Posted on August 31, 2012 by [uoncc](#)



On the 29th August 2012 I was invited to address the Splendour in the Park Public meeting at the Newcastle Town Hall. The meeting featured a number of distinguished speakers from the University of Newcastle chaired by University Foundation Dr Bernard Curran and including world renown architects, Professor Richard Leplastrier and Professor Peter Stutchbury, Cultural Heritage Researcher and Historian, Ann Hardy, and Dr John Lewer from the University School of Business and Law and the Friends of King Edward Park Inc. Together, we presented an overview of this vitally important public open space, the heritage, history, and essential need for public participation.

The title of my presentation was “The Origins of the King Edward Park Recreational Reserve”.



Ref: An Historical Survey 1858-1966:  
108 Years of Journalism in Newcastle  
(NMH 23/2/1966) p.8

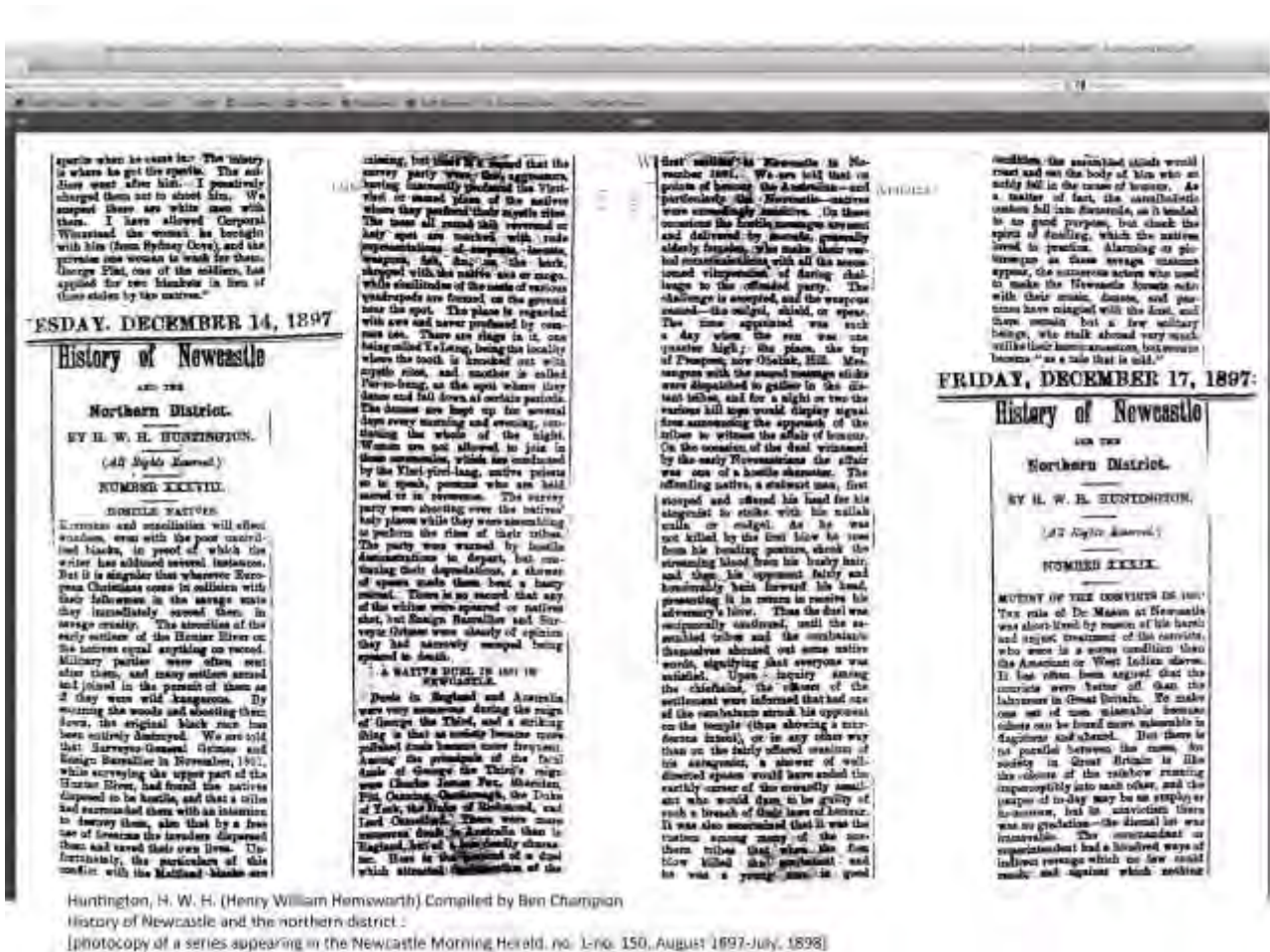
<http://coalriver.wordpress.com/2012/06/06/an-historical-survey-1858-1966/>

During the recent announcement of sackings at the local Newcastle Herald, we digitised a Supplement published in 1966 on the history of newspapers in Newcastle. In that publication was an interesting engraving (reproduced above) that described King Edward Park as being a place “where many a feud was settled”. There was no further text explaining that particular engraving, or its original source, so I was left with a mystery that needed further investigation. It reminded me of an article I had scanned many years ago for the [Virtual Sourcebook for Aboriginal Studies](#) dating from 1897 and documenting a native duel between Aboriginal tribes in Newcastle at the present site of the Obelisk back in November 1801, in the early inception period of European settlement in Newcastle. The 1801 Survey Mission under the leadership of Lieutenant Grant and Lieutenant Colonel Paterson having visited in June-July 1801 with a Corporal Wixsted arriving to take command in late July. It is during this survey mission that the land later to be known as King Edward Park were identified and officially named. [Paterson wrote to Governor King on 25/6/1801](#), stating:

*“...the hills from this to the southward are covered with excellent grass, without any wood or shrubs, except in the vallys [sic] and there but little. As they have much the appearance of those hills you see sheep feeding on in England and I am certain would answer well for that purpose, I have named them the “Sheep Pasture Hills”.*”



The “Sheep Pasture Hills” appear on Ensign Francis Barrallier’s June-July 1801 Survey Chart of the Coal Harbour and Rivers.



## A NATIVE DUEL IN 1801 IN NEWCASTLE

From: Huntington, H. W. H. (Henry William Hemsworth)

“History of Newcastle and the Northern District Number XXXVII” from Newcastle Morning Herald. 14th December 1897.

Transcribed by Gionni Di Gravio

Duels in England and Australia were very numerous during the reign of George the Third, and a striking thing is that as society became more polished duels became more frequent. Among the principals of the fatal duels of George the Third's reign were Charles James Fox, Sheridan, Pitt, Canning, Castlereagh, the Duke of York, the Duke of Richmond, and Lord Camelford. There were more numerous duels in Australia than in England, but of a less deadly character. Here is the account of a duel which attracted the attention of the first settlers at Newcastle in November 1801. We are told that on points of honour the Australia – and particularly the Newcastle – natives were exceedingly sensitive. On these occasions the hostile messages are sent and delivered by women, generally elderly females, who make their verbal communications with all the accustomed vituperation of daring challenge to the offended party.

The challenge is accepted, and the weapons named – the cudgel, shield, or spear. The day appointed was such a day when the sun was one quarter high; the place, the top of Prospect, now Obelisk Hill. Messengers with the sacred message sticks were dispatched to gather in the distant tribes, and for a night or two the various hill tops would display signal fires, announcing the approach of the tribes to witness the affair of honour. On the occasion of the duel witnessed by the early Novocastrians the affair was one of a hostile character. The offending native, a stalwart man, first stooped and offered his head for his antagonist to strike with his nulla nulla or cudgel. As he was not killed by the first blow he rose from his bending posture, shook the streaming blood from his bushy hair, and then his opponent fairly and honourably bent forward his head, presenting it in return to receive his adversary's blow. Thus the duel was reciprocally continued, until the assembled tribes and the combatants themselves shouted out some native words, signifying that everyone was satisfied. Upon inquiry among the chieftains, the officers of the settlement were informed that had one of the combatants struck his opponent on the temple (thus showing a murderous intent), or in any other way than on the fairly offered cranium of his antagonist, a shower of well directed spears would have ended the earthly career of the cowardly assailant who would dare to be guilty of such a breach of their laws of honour. It was also ascertained that it was the custom among many of the northern tribes that when the first blow killed the combatant and he was a young man in good condition the assembled chiefs would roast and eat the body of him who so nobly fell in the cause of honour. As a matter of fact, the cannibalistic custom fell into disuetude, as it tended to no good purpose, but to check the spirit of duelling, which the natives loved to practice. Alarming or picturesque as these savage customs appear, the numerous actors who used to make the Newcastle forests echo with their music, dances, and pastimes have mingled with the dust, and there remain but a few solitary beings, who stalk abroad very much unlike their heroic ancestors, but soon to become "as a tale that is told."



Panorama of Newcastle 1821. Panorama of Newcastle : watercolour drawings by Edward Close.  
(Courtesy State Library of New South Wales)

The slide above shows a segment from a panorama of Newcastle from 1821 painted by artist Edward Charles Close. It shows a representation of an Aboriginal corroboree taking place at the site of the brick windmill (now Obelisk), again providing a contemporary visual evidence of Aboriginal connection with the site for rituals and ceremonies.





Joseph Lycett *Newcastle, New South Wales, looking towards Prospect Hill c1816*  
Courtesy of Newcastle Art Gallery  
(Photograph by Bruce Turnbull)

To adequately position us locally with the historical events, this view (click the painting for a larger image) of early Newcastle displays the George Street, later Watt street vista, painted around 1816 by the convict Joseph Lycett. The wharf at the right hand side of the painting correlates today at the site of the roundabout opposite the Newcastle Train Station, upon which now resides on reclaimed land. The line up the hill to the Government House, which now lies under Watt Street roadway in the vicinity of Fletcher Park. Beyond that is the site of King Edward Park, South Newcastle Cliff (Yirannali) and Shepherd's Hill (Khanterin).





**Plan of the Town of Newcastle New South Wales shewing it's present actual state with part of the adjoining Country, and the coal works of The Australian Agricultural Company from a Careful Survey in 1830 by Jno. Armstrong.**  
(Courtesy Alexander Turnbull Library, National Library of New Zealand)

The image above is an overlay of a section of John Armstrong's 1830 map of Newcastle with Google Earth, providing an overhead view of the same scene depicted in the painting some years later. Again click the image for a greater detail. Various features identified in the 1830 map are pin pointed in the modern overlay.



## John Bingle (1796-1882)

- Sailor, merchant and landholder
- First visited Newcastle in Dec 1821
- Met Major Morisset and taken on tour
- Bingle & Co. established the first regular trading service between Sydney and Newcastle in 1822 in the *Sally*.
- married in 1824 and moved to Scone
- in 1837 returned to England until return in 1842
- commenced business in Newcastle in 1851
- First Chair Chamber of Commerce May 1856
- The first message sent by telegraph on the line from Sydney to Newcastle, on 11 January 1860 sent from his office

Portrait 6 'John Bingle of Puen Buen' from Bingle family : photographs and pictorial material, chiefly 1863-1910 (Courtesy of State Library of NSW)

The next part of our tale revolves around the eye witness account of Newcastle's John Bingle (1796-1882). He was a sailor, merchant and landholder, who first visited Newcastle back in December 1821, met the then Commandant of the Penal Settlement, Major James Thomas Morisset (1780-1852), and taken on tour around the site of the town, and surrounding areas behind the Government House now King Edward Park and Bogey Hole. He later formed a company Bingle & Co. that established the first regular trading service between Sydney and Newcastle in 1822 in the sloop Sally. In 1824 he married and moved to a property in Scone called Puen Buen (which according to the researches of the late Canon Carlos Stretch is an Aboriginal word meaning "small stones.") In 1837 he temporally returned to England before returning to Australia in 1842 and commencing a business in Newcastle in 1851. He was the Chair of the first Newcastle Chamber of Commerce established in May 1856, and the first message sent by telegraph on the line from Sydney to Newcastle, on 11 January 1860 was sent from his office. An interesting and dynamic man, who when he died in 1882 was lamented as Newcastle's oldest inhabitant. He published his memoirs in 1873, *The Past and Present Records of Newcastle, New South Wales*, and it is from this work that the true origins of the Newcastle Recreational Reserve now known as King Edward Park and Bogey Hole are detailed. He is a primary source, a first hand account to information that, in the case of Morisset's creation of the would never have been formally set in the public records.



DOWNLOAD John Bingle's [Past and Present Records of Newcastle, New South Wales](#) (1873) [16.5MB PDF] or here [The Past and Present Records of Newcastle, New South Wales](#) Digitised by Newcastle Region Public Library

"The Commandant's Residence named the Government House, was situated in the line of Watt-Street, about one hundred yards from the corner of the Barrack wall in Church Street. This building was a convenient and pretty cottage, but was unfortunately destroyed by fire some time after Major Morriset left to join his Regiment. At the back of it, over a hill, the Major had made a pretty walk called the Horseshoe, the only outlet even to the present day, in the shape of a pleasant stroll" - John Bingle *Past and Present Records of Newcastle* (1873) pp.11-12

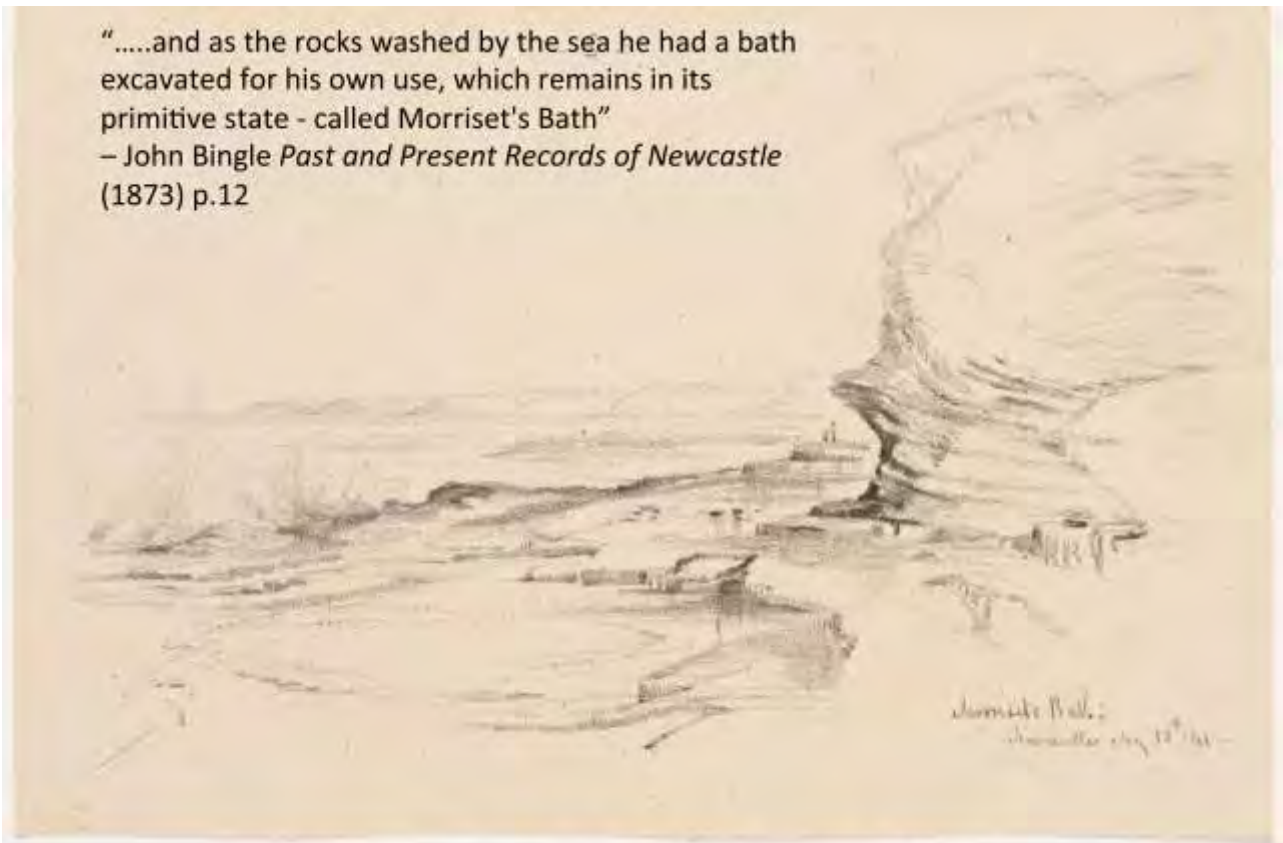


Image: Edward Charles Close – [Panorama of Newcastle] c.1825?  
from *Sketchbook of scenes of Sydney, Broken Bay, Newcastle and region, New South Wales, 1817-1840*,  
(Courtesy of the National Library of Australia)

Bingle visited Newcastle in December 1821, and was taken on a tour by Major Morisset. He says:

The Commandant's Residence named the Government House, was situated in the line of Watt-Street, about one hundred yards from the corner of the Barrack wall in Church Street. This building was a convenient and pretty cottage, but was unfortunately destroyed by fire some time after Major Morisset left to join his Regiment. At the back of it, over a hill, the Major had made a pretty (p.12) walk called the Horseshoe, the only outlet even to the present day, in the shape of a pleasant stroll, and as the rocks washed by the sea he had a bath excavated for his own use, which remains in its primitive state – called Morisset's Bath. – Bingle, *Past and Present Records of Newcastle NSW*, pp. 11-12

".....and as the rocks washed by the sea he had a bath excavated for his own use, which remains in its primitive state - called Morriset's Bath"  
 – John Bingle *Past and Present Records of Newcastle* (1873) p.12



Conrad Martens - Item 76 *Morrisets Bath, Newcastle, 13th May 1841*  
 from *Sketches in Australia, 1835-1865* by Conrad Martens (1801-1878)  
 View Album: <http://acms.sl.nsw.gov.au/item/itemDetailPaged.aspx?itemID=457268#>

This is the evidence that Morisset was the creator of the Horseshoe walk and “Morriset’s Bath” later known as the Bogey Bole. The image above is a sketch by artist Conrad Martens drawn on 13th May 1841, and it is the earliest sketch we have of the Morrisets Bath. Trying to find any trace of its construction in official records has not been fruitful, as it would have not been justified, and seen as an inappropriate use of funds. Morisset did not mention its construction to Commissioner Bigge, that he had used convict labour to cut out a bath for himself, or create a pleasure walk, for his own private use. However, he obviously felt comfortable showing the settlement off to a person such as Bingle, who was a visiting sea captain and businessman, and at the time on route to Moreton Bay. He wasn’t hanging around. Bingle describes the settlement under Morisset’s rule:

In the month of December, 1821, I first visited Newcastle in command of H. M. C. Sloop *Sally*, on a voyage to examine and finish the coast survey between Sydney and Torres Straits, especially Moreton Bay; and my report of its capabilities being considered favourable, Mr. Oxley, the Surveyor General, was sent to select and establish the settlement. Although upward of 50 years have elapsed since, there is not effaced from my memory the impression then made. I had never visited a Convict settlement, or seen arbitrary power carried to such an extent. Perhaps it was necessary for the safety of the settlement that such severe discipline and punishments should be adopted, but to a



stranger's eye it seemed very un-English. Walking out with the Commandant to see the beauties of the harbour, the splendid ocean view, and above all the magnificent and unrivalled prospect from the church close, and to give me an idea of the awe in which he was held, I found no convict passed us walking; all drew up, head uncovered, long before we reached them, and every coal cart drew up and stopped. – Bingle, *Past and Present Records of Newcastle NSW*, p. 7

We now fast forward to May of 1856, Bingle has established the first Chamber of Commerce in Newcastle, and has been elected its Chair.

"...a Chamber of Commerce was established in May 1856...The Government were induced by the Chamber to grant the citizens in perpetuity (35) thirty five acres of land as a recreation ground in the most delightful and picturesque part of Newcastle from the top of Watt Street round the Horse Shoe, to the Obelisk." – Bingle p.21



As its first order of business the Chamber lobbied the Government to grant the Horseshoe, coastline and Obelisk area that Bingle had visited all those years ago to the citizens of Newcastle. They also asked for two blocks of land in Watt Street to establish an Exchange and Reading Room.

The Government were induced by the Chamber to grant the citizens in perpetuity (35) thirty five acres of land as a recreation ground in the most delightful and picturesque

part of Newcastle from the top of Watt Street round the Horse Shoe, to the Obelisk. – Bingle, *Past and Present Records of Newcastle NSW*, p. 21

But, unfortunately disaster struck:

The great advantage which the city then derived in the possession of the Chamber of Commerce, was I regret to say, of short duration for the building in which the meetings were held, and in which the official documents and papers were kept, was totally destroyed by fire in 1859, and all records lost (except those in old newspapers) and no Chamber of Commerce established since to take its place. – Bingle, *Past and Present Records of Newcastle NSW*, p. 22

But fortunately details of the proposals were recorded on an official Government Chart dated July 1860, copies made and distributed to citizens in the Town:

The Exchange and Reading Room, with offices and shipping books similar to Lloyd's of London, was established at the same time as the Chamber of Commerce, May 1856, and destroyed in 1859 as I have just stated. ...Soon after the formation of the Exchange, and when in working order, they applied to the Government to allot then a piece of land for the erection of a suitable building, which was given at the same time the post-office site was selected, and the adjoining allotment to it was given as the site of an exchange, and was marked so on an official Government chart, issues from the Surveyor General's office, Sydney and dated July 1860. – Bingle, *Past and Present Records of Newcastle NSW*, p. 23

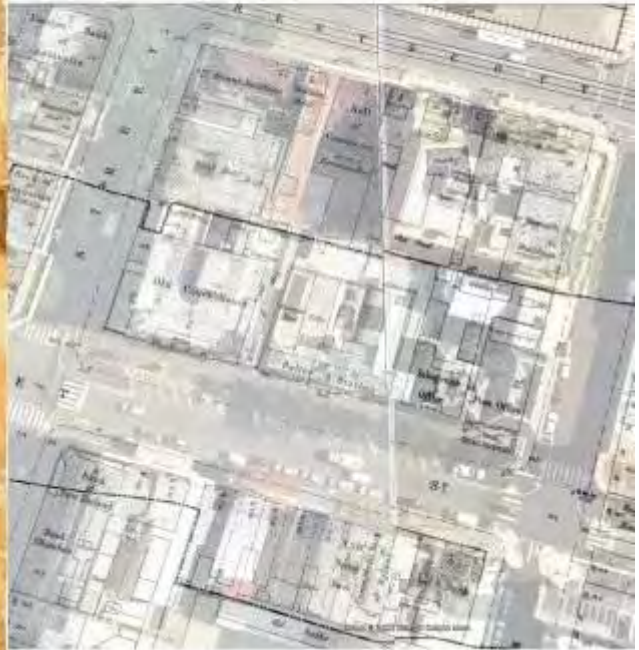
I checked the date across our Flickr site, the actual plan was one digitised in July 2011 amongst 2.5 kms of plans digitised in the University 's Collections and uploaded here:

<http://www.flickr.com/photos/uon/6070840885/>

M4721 Map of the City of Newcastle, County of Northumberland, NSW, July, 1860.



"Soon after the formation of the Exchange, and when in working order, they applied to the Government to allot then a piece of land for the erection of a suitable building, which was given at the same time the post-office site was selected, and the adjoining allotment to it was given as the site of an exchange, and was marked so on an official Government chart, issues from the Surveyor General's office, Sydney and dated July 1860." – Bingle p.23



The fire had destroyed the official records held in the Newcastle Business Chamber buildings in Watt Street, but luckily the newspapers of the day, including the Newcastle Telegraph (Newcastle's first newspaper established by George Maxted in 1855) and the Newcastle Chronicle had placed important correspondence on the public record:

It was most unfortunate when the building was destroyed by fire that all the papers and documents were burnt, those especially bearing on this subject among the number ; but most fortunately the doings of the Chamber were reported in the Telegraph, the local paper of that day; and also three of the letters published in the Chronicle by one of the Aldermen will speak for themselves.

Letter addressed to the Newcastle Chronicle, published 15th March, 1865.

### **THE RECREATION RESERVE.**

SIR,—In compliance with your request, I herewith enclose you the three documents which I wish should be read by the Town Clerk, at the meeting of the Municipal Council last Monday night. I stated that on their being read I should move that they be received and referred to the Reserve Committee. Objections were made on their being read, and the Mayor having ruled that they should not be, I consequently failed in making them



the property of the Council which I was very anxious to do, believing them to be important documents, and that on public grounds they should be in the hands of the Municipality. The first letter proves the origin and objects of the grant, and the reply to the second proves who were intended as Trustees, viz., the Municipal Council. You are at liberty to make what use of them you think proper, and then return them to me. I have kept them for six years. Twice have I offered them to the Newcastle Municipal Council, the third time I hope they will receive them – the plot thickens.—Yours, &c.,

THOMAS ADAM

Newcastle, March 14th 1865.

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Colonial Secretary's Office,  
Sydney, 10th September, 1856.

GENTLEMEN,- His Excellency, the Governor General, has laid before the Executive Council your memorial, praying that the remaining unaltered portion of the "Newcastle City Extension Reserve" may be granted, and placed in trust for the inhabitants of Newcastle, to be appropriated for "the purpose of recreation, and forming a reservoir. 2. His Excellency in Council has under the report on the subject received from the Surveyor-General, approved of the land in question, containing about thirty-five acres, being permanently dedicated to the public purposes named in the memorial, of which that officer has been apprised. I have the honor to be, gentlemen, your most obedient servant.

W. ELYARD.

To J. Wright, Esq., and other gentlemen signing the Memorial, Newcastle.

(p.25)

COPY.

Newcastle. 29th September, 1856.

SIR, – On behalf of the Memorialists, I beg to acknowledge the receipt of your communication of the 10th instant, announcing compliance by his Excellency the Governor General in Council, with the prayer of a memorial addressed to him from here, for a grant of the unalienate portion of the Newcastle City Extension Reserve, for the



public purposes therein mentioned. I am requested by the memorialists to express the grateful sense they entertain of the enlightened liberality of his Excellency the Governor General and Council, which has induced this important public boon, which it is the earnest wish of the inhabitants of Newcastle, that they may be enabled to soon adapt to the important objects, for which it has been so liberally granted; and in requesting your conveyance of these feelings of the memorialists to his Excellency. I am desired to state their impression of the courteous manner in which, you have been pleased to express to them his Excellency's determination. As his Excellency's intention probably contemplates the nomination from here of a number of gentlemen interested in the advancement of this city, and consequently in the promotion of the objects of the trust, to be appointed trustees in the deed, I am requested to name the undermentioned, who would act in that capacity. The object in naming this number is to secure a more extended interest and efficient action in carrying out the purposes of the grant. — I have the honor to be Sir, your most obedient servant,

(Signed) SAMUEL WRIGHT

Memo of names submitted, Messrs. .John Bingle, B. Hudson, George Tully, Benjamin Hislop, Simon Kemp, P. C. Boswell, Thomas Adam, and S. L. Wright.

To the Honorable the Colonial Secretary, Sydney,

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Colonial Secretary's Office  
Sydney, 21st October, 1856.

SIR,— With reference to your letter of the 20th ultimo, in which you submit the names of certain gentlemen proposed as trustees to receive a grant of the land, recently appropriated as an extension reserve for the recreation and amusement of the inhabitants of the city of Newcastle. I am directed to inform you, that, in contemplation of the establishment of municipalities it is considered proper to defer, for the present, the issue of a deed in this case. I am directed to add that the papers on this subject have now been transmitted to the Secretary for Lands and Public Works, to whose department the business belongs, and that any further communication which may be necessary, will be made to you from the office of that Minister. — I have the honor to be Sir, your most obedient servant.

W. ELYARD

SAMUEL WRIGHT, Esq., Newcastle,

This correspondence does not directly apply to the Exchange Grant, but to that of the Recreation ground. They were both made at the same time, and both dealt with in like manner— further, these letters prove that the city was indebted to the Committee's exertions for the Recreation land, and it is fortunate that official letters have been preserved in private hands.



With regards to the creation of the Horse Shoe walk, there is an argument that what became our pathways and roads, were originally the tracks of the Aboriginal people, who had walked the land for thousands of years. Such themes will be further investigated by my fellow presenters Professors Richard Leplastrier and Peter Stutchbury. The engraving above entitled “Near Newcastle on the Hunter, New South Wales” is from an original work by John Skinner Prout (1805-1876) and engraved by S. Bradshaw. It was reproduced facing page 126 in Volume 2 of *Australia by Edwin Carton Booth, F R. C. I. Illustrated with Drawings by Skinner Prout, N. Chevalier, &c. &c. London: Virtue and Company Limited, (1873-1876)*. It shows Aboriginal people at Shepherds Hill around 1841 at what is a path or track in the scrub. Morisset may have created this path from what may have already been an Aboriginal track.



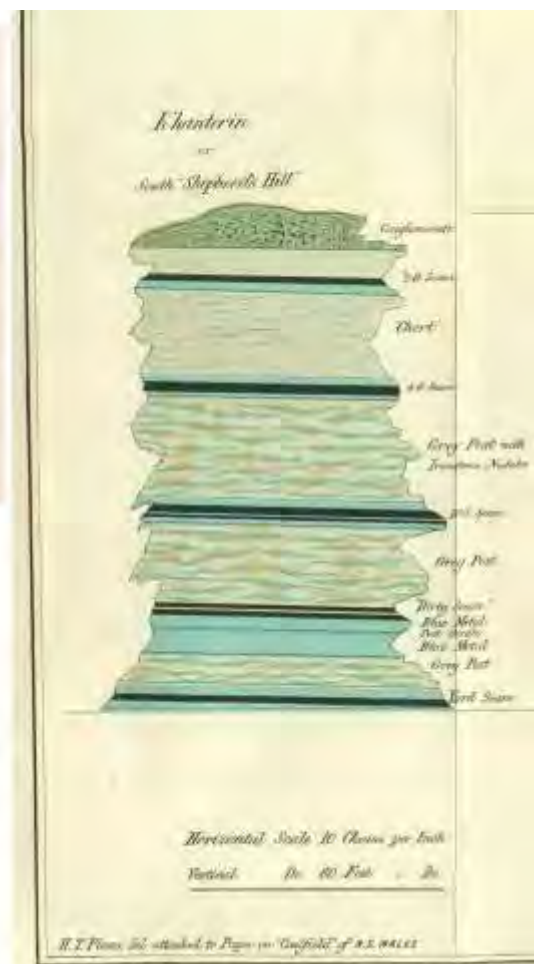
Item 87 From Burwood near Newcastle, 11th May 1841, Shepherds Hill from *Sketches in Australia, 1835-1865* by Conrad Martens (1801-1878) (Courtesy State Library NSW)

#### H.T. Plews - Plan No. 2 (Plate 2) (1858)

Printed in colours by A. Reid, Newcastle on Tyne. The paper by Henry Taylor Plews "On the Coalfield of New South Wales" was published in Volume VI Transactions of the North of England Institute of Mining Engineers (1858). It is one of the early reports of the geology and mining in NSW, and is accompanied by 8 plans of which this is plate 2. Showing strata of Shepherds Hill (Khanterin), Nobby Island, Signal Hill, Section at Raymond Terrace, Section from Liverpool through Campbelltown and Appin to Woolongong by "J.B. Jukes"

Digitised by Russell Rigby (CRWP)

<http://www.flickr.com/photos/uon/3886437448/>



There also exists a possible Aboriginal name for South "Shepherds Hill" as Khanterin. We are not sure that it is an Aboriginal word, but have found it used in two sources to date.

# John Bingle to Newcastle NOW

*"The reminiscences of old times, are most refreshing, for there was an amount of genial and kindly feeling existing at that time, which does not, I regret to say, influence our citizens now to work the one with the other.*

*"It is truly grievous the want of unanimity, ill-feeling, and bickerings displayed at our public meetings. Even when we are personally concerned. But call a meeting for any local display, or especially for a patriotic purpose. Then I am proud of my fellow townsmen, who can, when the matter is properly brought before them, throw off all bickerings and strife and join heart, hand, and purse, for the advancement of either object."*

*"At times like these the good qualities of our townspeople are brought out without a dissenting voice." – John Bingle 1873 (p.45-46)*



Bingle and the Memorialists had attempted to secure the Recreation Ground, but the decision had to be deferred to the newly established Newcastle Municipal Council. What we have established through Bingle's testimony, is that we can thank the first Newcastle Business Chamber for the initial vision in securing the Recreation Reserve for the Newcastle community. We know that the Crown eventually did dedicate 40 acres for recreation purposes gazetted on the 16th July 1863. Further work needs to be undertaken to see what happened from there.

Bingle constantly refers to the bickerings and arguments that accompany anything undertaken in Newcastle. His book records some important words of advice for our Community.

The reminiscences of old times, are most refreshing, for there was an amount of genial and kindly feeling existing at that time, which does not, I regret to say, influence our citizens now to work the one with the other.

It is truly grievous the want of unanimity, ill-feeling, and bickerings displayed at our public meetings. Even when we are personally concerned. But call a meeting for any local display, or especially for a patriotic purpose. Then I am proud of my fellow townsmen, who can, when the matter is properly brought before them, throw off all bickerings and strife and join heart, hand, and purse, for the advancement of either object.



At times like these the good qualities of our townspeople are brought out without a dissenting voice.

– Bingle, *Past and Present Records of Newcastle NSW*, pp. 45-46

## John Bingle to the Newcastle Business Community



UoNCC Norm Barney Collection <http://www.flickr.com/photos/uon/3376922969/>

“After the fire the subscribers were disheartened.... However, it is never too late to mend, so it is to be hoped that our influential commercial men may throw all jealousies aside and bestir themselves in carrying out the views and intentions of their former benefactors.”

– John Bingle 1873 p.26

To his fellow business leaders:

After the fire the subscribers were disheartened, and no attempt has since been made to replace it. However, it is never too late to mend, so it is to be hoped that our influential commercial men may throw all jealousies aside and bestir themselves in carrying out the views and intentions of their former benefactors. – Bingle, *Past and Present Records of Newcastle NSW*, p. 26

## John Bingle to future Newcastle

*"I venture to prophesy that Newcastle will take the lead of all the colonies; and if the consumption and increased demand for coal to the eastward of the Cape of Good Hope continues as at present, Newcastle must become one of the greatest cities in the Southern Hemisphere, in wealth and prosperity." (p.39)*



The Hill and Obelisk.

*"It requires us as citizens to bury all paltry jealousies and unite for the advancement of our city, and as its progress is developed, our interests, which are identical, will also go onward, and the years in store for us will cause greater moral and commercial successes to be achieved than have been chronicled in either the Past or Present Records of Newcastle." (p.47 )*

John Bingle to future Newcastle:

I venture to prophesy that Newcastle will take the lead of all the colonies; and if the consumption and increased demand for coal to the eastward of the Cape of Good Hope continues as at present, Newcastle must become one of the greatest cities in the Southern Hemisphere, in wealth and prosperity. All machinery is set in motion by coal, and it must be had at any price; for without it, all commercial and postal contracts would be broken; and all industries be at a standstill, especially steamers.- Bingle, *Past and Present Records of Newcastle NSW*, p. 39

It requires us as citizens to bury all paltry jealousies and unite for the advancement of our city, and as its progress is developed, our interests, which are identical, will also go onward, and the years in store for us will cause greater moral and commercial successes to be achieved than have been chronicled in either the Past or Present Records of Newcastle. – Bingle, *Past and Present Records of Newcastle NSW*, p. 47

These words are as timely today, as they were in 1873. Bingle saw that our fractured and bickering community was at its best at times of patriotism. It is interesting that the King Edward

Park reserve later becomes a focal point for marches and commemorations after the war years prior to the formation of Civic Park. The Wattle Day League in celebration of Arbor Day would have commemorative tree plantings, and processions would wend their way from the Post Office up Watt Street to King Edward Park. Bingle may have foreseen King Edward Park as a place where petty feuds and squabbles among his fellow citizens could be resolved, just as they had been for thousands of years prior among the Aboriginal people. The place is obviously a special place, a lucky place, that he and his fellow colleagues fought to protect and retain for community ownership. It needs to be kept aside as our original business Chamber pioneers wished it to be, a Recreation Ground for the people of Newcastle.

Gionni Di Gravio

University Archivist and Chair – Coal River Working Party

University of Newcastle (Australia)

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3 thoughts on "Origins of King Edward Park"

**Ross Edmonds**

August 31, 2012 at 1:18 am

Another great piece of historical research. Slowly but surely our history is being retrieved, If anyone has a 1st edition of Bingle's book, please let me know.

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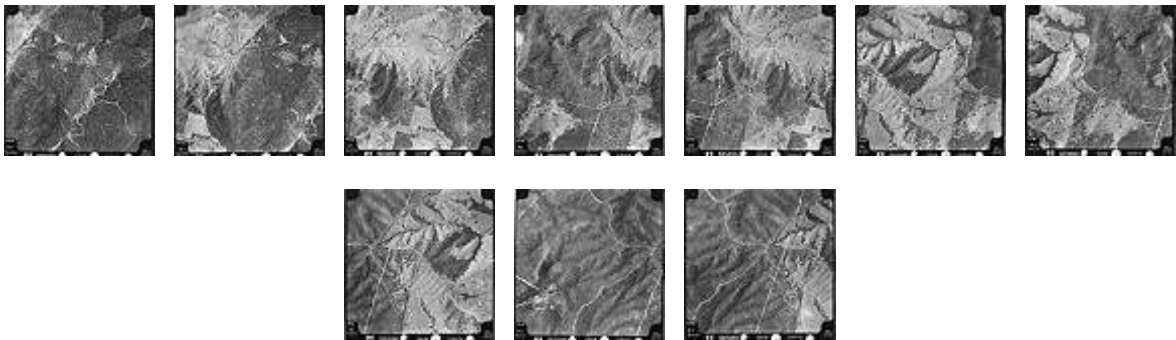
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