

Moorebank Intermodal Terminal

Heritage Interpretation Plan

Report to Tactical

27 June 2019



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1.0 INTRODUCTION

1.1 Background

The Moorebank Intermodal Terminal Project (MIT) involves the development of an intermodal terminal facility, including warehouse and distribution facilities, freight village (ancillary site and operational services), stormwater, landscaping, servicing and associated works on the western and eastern sides of Moorebank Avenue, Moorebank. The site comprises the Moorebank Precinct West (MPW) and the Moorebank Precinct East (MPE). The MPE also includes a rail link, within an identified rail corridor, which connects from the southern part of the site to the Southern Sydney Freight Line. The site is to be developed in three key stages:

- Stage 1- Construction of the Intermodal Terminal Facility and rail link (approved SSD 6766)
- Stage 2- Construction of warehouse and Distribution Facilities (approved SSD 7628)
- Stage 3- Extension of the Intermodal Terminal Facility and completion of Warehouse and Distribution Facilities (pending approval SSD 7709)

Artefact Heritage was engaged by Tactical, through Arcadis, to prepare high-level Heritage Interpretation Strategies for MPW (January 2017) and MPE (February 2017). Subsequently, the Development Consent conditions for the MIT require a combined, detailed Heritage Interpretation Plan (HIP) be developed, and Artefact Heritage has been engaged to develop this HIP.

The HIP addresses the Development Consent (SSD 7628) Conditions B101 and B102:

Heritage Interpretation Plan

B101. Prior to commencement of operation, the Applicant must prepare a Heritage Interpretation Plan based on the recommendations contained in the Heritage Interpretation Strategy (Artefact, 2017) approved under MPE Stage 1. The plan must be prepared for the entire Moorebank Intermodal Precinct (MPE and MPW sites).

B102. The plan must form part of the OEMP required by condition C3 and must: (a) be prepared by a suitably qualified and experienced person(s); (b) be prepared in consultation with NSW Heritage Division, Council, relevant landowners and stakeholders including the Moore bank Heritage Group (MHG), Department of Defence, as well as the Relevant Aboriginal Parties (RAPs) should themes relating to Aboriginal heritage be included for interpretation; and (c) be approved by the Secretary prior to the commencement of operation.

In addition, the HIP is a management plan under the OEMP, as required by Condition C1¹. Table 1 below shows how the development conditions B101, B102, and C1¹ have been addressed in this HIP.

¹ Advice from NSW Dept Planning & Environment (email to Tactical, 26 June 2019) is that this Condition was wrongly referenced in the Conditions of Consent as 'C3', whereas it should be 'C1'. Where it is used in this HIP as a direct quote from the Conditions, the original 'C3' has been retained however, when used within the body of the report it has been altered to the correct 'C1'.

Table 1: Addressing the conditions

Conditions	Section
<p><i>B101.</i> <i>Prior to commencement of operation, the Applicant must prepare a Heritage Interpretation Plan based on the recommendations contained in the Heritage Interpretation Strategy (Artefact, 2017) approved under MPE Stage 1. The plan must be prepared for the entire Moorebank Intermodal Precinct (MPE and MPW sites).</i></p>	<p><i>Addressed in Sections 3,4,5, and Appendices.</i></p>
<p><i>B102.</i> <i>The plan must form part of the OEMP required by condition C3 and must:</i> <i>(a) be prepared by a suitably qualified and experienced person(s); (b) be prepared in consultation with NSW Heritage Division, Council, relevant landowners and stakeholders including the Moore bank Heritage Group (MHG), Department of Defence, as well as the Relevant Aboriginal Parties (RAPs) should themes relating to Aboriginal heritage be included for interpretation; and (c) be approved by the Secretary prior to the commencement of operation.</i></p>	<p><i>Addressed:</i> <i>(a) In Section 1.4</i> <i>(b) In Section 3.4 and Appendix A</i> <i>(c) Tactical to submit HIP to the Secretary as required</i></p>
<p><i>C3 (g) (vi)</i> <i>Before commencement of operations a Precinct Operational Environmental Management Plan (OEMP) must be prepared to the satisfaction of the Secretary. The OEMP must include (g) (vi) Heritage Interpretation Plan</i></p>	<p><i>Addressed. HIP has been prepared in accordance with relevant guidelines (Section 1.3)</i></p>

1.2 Scope of the Report

A HIP is a tool that provides an approach for transmitting messages about the cultural heritage values of a place to visitors, users and other audiences. This HIP draws on the previous Heritage Interpretation Strategies prepared by Artefact Heritage in 2017 (Moorebank Precinct West Heritage Interpretation, Artefact 2017a, and Moorebank Precinct East Heritage Interpretation Strategy, Artefact 2017b) and, as such, does not repeat the history of the site or assessments of site significance addressed in the previous Heritage Interpretation Strategies, nor does it provide general discussion of the interpretive process or possible styles of interpretive techniques, which are fully addressed in the previous Heritage Interpretation Strategies.

This HIP therefore focuses on developing specific interpretive media, providing draft content (texts, images) and suggesting possible locations for a series of heritage interpretation opportunities at the Moorebank Internal Terminal site. In particular, the interpretive media that are developed in this HIP are based on those identified in the HIS for MPE, as per Condition B101:

On-site:

- Interpretative panels in the Freight Village (the only location at the site to be widely utilised by people)
- Interpretive artefact display at the Freight Village area, either as paving inlays or recessed cases
- Paving inlays at site entrance/exit areas, pathways
- Adaptive re-use of architectural elements at the Freight Village area, site entrance/exit areas, in the landscaping.

Off-site:

- 'Moorebank's heritage' Website – SIMTA (then Moorebank Logistics Park) as host, linked to on-site via QR codes.

Please note that at the time of writing the HIP, the detailed design stage of the Freight Village and surrounding landscaping had yet to commence. This detailed design process is planned for 2020. As such, the HIP provides suggestions for location and style of interpretive material only, and will require further review and modifications during the development of the Urban Design and Landscaping Plan and the detailed design stage of the Freight Village.

Following approval of the HIP, the next step in the heritage interpretation process is the refining of the interpretive media at detailed design stage for the Freight Village, followed by design and production of the interpretive media within the freight Village and surrounding landscaping.

1.3 Methodology and Terminology

This HIP has been prepared in accordance with *the NSW Heritage Manual* (1996), NSW Heritage Office's *Interpreting Heritage Places and Items: Guidelines* (2005) and *Heritage Interpretation Policy* (as endorsed by the Heritage Council in 2005).

The *Heritage Interpretation Policy* states that:

The interpretation of New South Wales' heritage connects the communities of New South Wales with their heritage and is a means of protecting and sustaining heritage values. Heritage interpretation is an integral part of the conservation and management of heritage items, and is relevant to other aspects of environmental and cultural management and policy. Heritage interpretation incorporates and provides broad access to historical research and analysis. Heritage interpretation provides opportunities to stimulate ideas and debate about Australian life and values, and the meaning of our history, culture and the environment.

The NSW Heritage Office's *Interpreting Heritage Places and Items: Guidelines* provides 'The Ingredients for Best Practice' is shown below.

Table 2: Best practice principles

Ingredient	Outline
1: Interpretation, people and culture	Respect for the special connections between people and items.
2: Heritage significance and site analysis	Understand the item and convey its significance.
3: Records and research	Use existing records of the item, research additional information, and make these publicly available (subject to security and cultural protocols).
4: Audiences	Explore, respect and respond to the identified audience.
5: Themes	Make reasoned choices about themes, stories and strategies.

Ingredient	Outline
6: Engaging the audience	Stimulate thought and dialogue, provoke response and enhance understanding.
7: Context	Research the physical, historical, spiritual and contemporary context of the item, including related items, and respect local amenity and culture.
8: Authenticity, ambience and sustainability	Develop interpretation methods and media which sustain the significance of the items, its character and authenticity.
9: Conservation planning and works	Integrate interpretation in conservation planning, and in all stages of a conservation project.
10: Maintenance, evaluation and review	Include interpretation in the ongoing management of an item; provide for regular maintenance, evaluation and review.
11: Skills and knowledge	Involve people with relevant skills, knowledge and experience.
12: Collaboration	Collaborate with organisations and the local community.

This document has also been informed by the Australia International Council on Monuments and Sites (ICOMOS) *Burra Charter*, 1999. The *Burra Charter* defines interpretation as “all the ways of presenting the cultural significance of a place”, which may be achieved through a combination of the treatment of heritage fabric, the use of the place, or activities undertaken at the place, and the introduction of material explaining this history (Article 1.17). Interpretation should provide and enhance understanding of the history, significance and meaning, as well as respect and be appropriate to the cultural significance of a place (Article 25).

The ICOMOS *Ename Charter* for interpretation of cultural heritage sites has also informed this document. In recognising that interpretation and presentation are part of the overall process of cultural heritage conservation, this Charter has established seven cardinal principles upon which interpretation should be based:

- Principle 1: Access and understanding
- Principle 2: Information sources
- Principle 3: Attention to setting and context
- Principle 4: Preservation of authenticity
- Principle 5: Planning for suitability
- Principle 6: Concern for inclusiveness
- Principle 7: Importance of research, training and evaluation.

The following definitions used within the HIP are aligned with those in the NSW Heritage Office's *Interpreting Heritage Places and Items Guidelines*:

- Aboriginal people(s) with cultural association – means Aboriginal people(s) with a cultural or historical association with an area not necessarily deriving from descent from original inhabitants. Consideration must also be given to Aboriginal people who reside in an area where there are no identified traditional owners or Aboriginal people who have traditional association to that country (see also Traditional owner).
- Aboriginal Culture – The culture of a group of people or groups of peoples comprising of the total ways of living built up and passed on from one generation to the next, and evolving over time.
- Aboriginal Heritage – The heritage of a group of people or groups of peoples is represented in all that comes or belongs to them by reason of birth and includes their spirituality, language and relationship to land. Associations mean the special connections that exist between people and an item.
- Heritage significance – refers to meanings and values in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic importance of the item. Heritage significance is reflected in the fabric of the item, its setting, use, associations, meanings, records, related places and related objects. Items may have a range of values and meanings for different individuals or groups, over time.
- Interpretation – means all the ways of presenting the significance of an item. Interpretation may be a combination of the treatment and fabric of the item; the use of the item; the use of interpretive media, such as events, activities, signs and publications, or activities, but is not limited to these.
- Interpretation plan – a document that provides the policies, strategies and detailed advice for interpreting a heritage item. It is based on research and analysis and plans to communicate the significance of the item, both during a conservation project and in the ongoing life of the item. The plan identifies key themes, storylines and audiences and provides recommendations about interpretation media. It includes practical and specific advice about how to implement the plan.
- Meanings – denote what an item signifies, indicates, evokes or expresses.
- Media – means the tools, techniques and technologies used to convey the interpretation. These can include signs, orientation, notices, guided and self-guided walks, audio guides, installations, displays, models, dioramas, exhibitions, lighting, street naming, holograms, films, video, soundscapes, oral history, maps, brochures, books and catalogues, public art, writers and artists in residence programs, events, activities, role play, demonstrations, educational programs, websites, CD ROM programs, reconstructions, sets, and replicas and other means of communication.

1.4 Authorship

This HIP has been prepared by

- [REDACTED] (Principal, Artefact Heritage; BEd (Hons), Master of Letters in Museum and Heritage Studies). [REDACTED] has over 25 years' experience developing interpretive strategies, detailed interpretive plans and interpretive content across a range of sectors - heritage, Indigenous, environmental, and archaeology sectors - for a wide range of projects, from targeted urban developments to large-scale infrastructure projects

- [REDACTED] (Graduate Heritage Consultant Artefact Heritage: BA (Arch), Masters in Museum and Heritage Studies). [REDACTED] has four years' experience working in archaeology, cultural heritage and the museum sector, preparing heritage assessments, collection management, and undertaking historical research and archaeological fieldwork.
- with input and review provided by Dr [REDACTED] (Director, Artefact Heritage, PhD Archaeology). [REDACTED], the director of Artefact, has 16 years' experience in archaeology and cultural heritage management, providing heritage advice and services for a variety of development projects. She has expertise across a range of areas including Aboriginal heritage, non-Aboriginal archaeology and built heritage, and specializes in strategic assessment and approvals advice for large infrastructure projects.

1.5 Acknowledgments

Artefact Heritage would like to gratefully acknowledge the valuable assistance provided by the below individuals and organisations in the preparation of this HIP:

- [REDACTED], Tactical
- Moorebank Heritage Group, in particular [REDACTED]
- [REDACTED], historian (previously of Moorebank Heritage Group)
- [REDACTED], Biosis
- [REDACTED], Groudink Landscaping
- [REDACTED], Extent
- [REDACTED], Heritage Manager, Liverpool City Council
- [REDACTED], Curator, Australian Army Museum of Military Engineering, Dept of Defence
- [REDACTED], A/Assistant Director Environment & Sustainability, Service Delivery Division, Northern NSW, Dept of Defence
- Registered Aboriginal Parties

2.0 THE SITE

2.1 Site Location and Plans

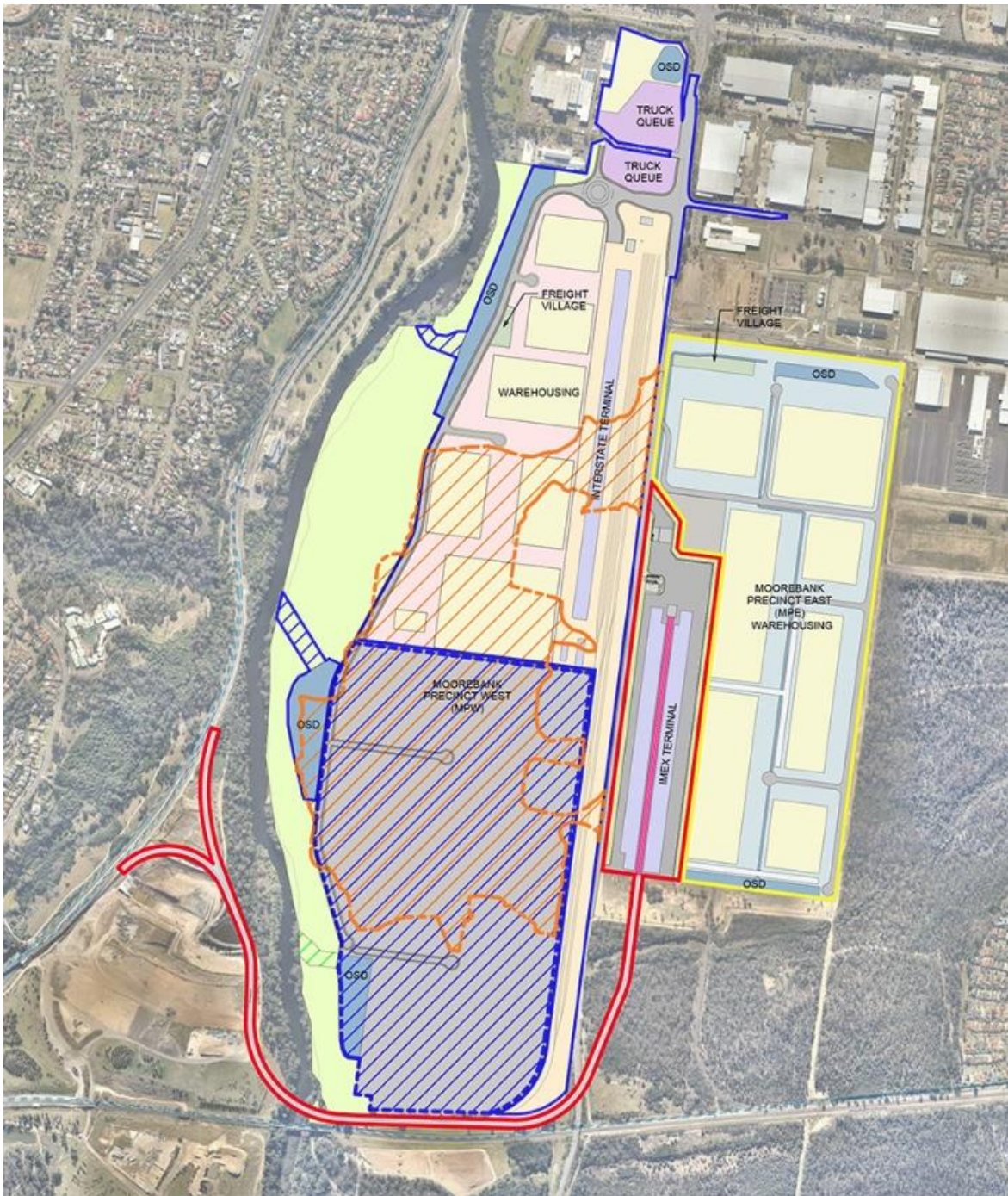
The Moorebank Intermodal Terminal Precinct site comprises 400 ha, and is located approximately 27 km south-west of the Sydney Central Business District (CBD) and approximately 26 km west of Port Botany. The site is within the Liverpool Local Government Area (LGA), in Sydney's South West subregion, approximately 2.5 km from the Liverpool City Centre. The site is bounded by the Georges River to the west, the East Hills Railway Line to the south, Commonwealth land to the east, the M5 Motorway to the north, and is bisected by Moorebank Ave.

The new development at the site will comprise rail infrastructure connecting the site to the Southern Sydney Freight Line, an IMEX Terminal (port shuttle freight rail access direct to Port Botany), an Interstate Terminal (servicing interstate freight rail movements), approximately 1.2million square meters of net lettable building area for logistics industry and commercial occupants, as well as ancillary Freight Village precinct support facilities such as standalone offices, convenience retail, short stay accommodation, and maintenance.

Figure 1: Overview of project site, marked in red (Reid Campbell)



Project site (SIMTA)



2.2 Heritage Significance

Heritage interpretation is increasingly required to mitigate development-related heritage impacts. It also provides an opportunity for public engagement with the heritage significance of the place and adds value to the development.

The history and heritage values of the project area have been recognised and presented in a number of previous reports prepared for the project, so that information will not be repeated here (CDFD 2011, GB 2002, ERM 2013, NOHC 2014a, 2014b and 2014c, Artefact Heritage 2016a, 2016b, Biosis 2018a, Biosis 2018b, Extent 2018). In summary, the site comprised two heritage listed items: The

School of Military Engineering (SME) was located on the MPW site and on the rail link route in the MPE site (Liverpool Local Environmental Plan 2008, item 57), and The Defence National Storage and Distribution Centre (DNSDC) was located in the MPE site (Liverpool Local Environment Plan 2008 (item 57A)).² Both these items have been impacted under approved development, therefore the site no longer retains heritage significance.



A number of Aboriginal sites were recorded during archaeological investigations at both MPW and MPE (Biosis, 2018b, Extent 2018), and approximately 1500 artefacts were uncovered in total. Two scarred trees located on the western MPW site are proposed to be relocated to Tharawal Local Aboriginal Land Council (TLALC), Thirlmere. Recovered artefacts may be subject to mitigation measures, such as reburial at appropriate sites, and this process is still under negotiation with the Registered Aboriginal Parties.

2.3 Historical Themes





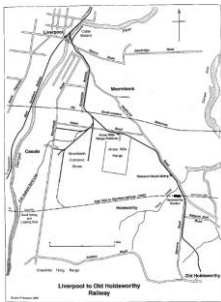
To successfully interpret a site, the contextual background should be presented in a way that is clear, concise, easily accessible, informative and engaging. Successful interpretation is best achieved by structuring the interpretive approach around key themes or stories directly associated with the site in order to provide a clear context for understanding the heritage values of the site.

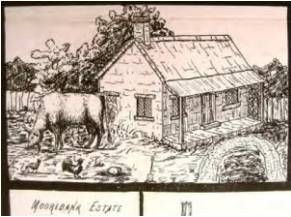
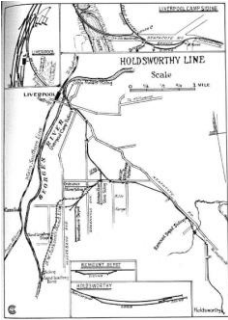

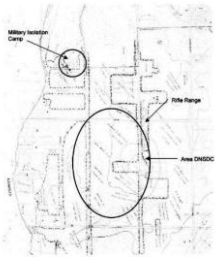
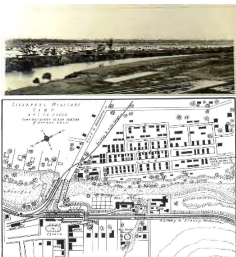
The Heritage Council of NSW (2001) has established thirty-two NSW Historical Themes to connect local issues with the broader history of NSW and the nation. Historical themes provide a context within which the heritage significance of an item can be understood, assessed and compared. Themes help to explain why an item exists, how it was changed and how it relates to other items linked to the theme. The historical themes, adapted from the Concept EIS Technical Paper (NOCH 2014b), which relate to the site are listed in Table 3.

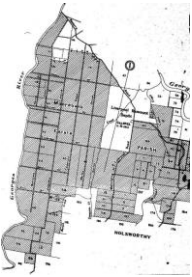





Table 3: Historical themes

Australian Historic Theme	NSW Theme
Peopling Australia	Aboriginal cultures and interactions with other cultures
	<p>The Liverpool district was home to the Cabrogal clan of the Darug tribe. The language groups occupying the region surrounding the site are thought to have been the Dharawal and the Darug. In the early 1800s relationships between the Aboriginal people of the area and the European settlers were generally amicable. European expansion throughout the Cumberland Plain displaced Aboriginal people from their traditional land and effectively cut off access to many resources. The first European activity in the area was exploratory shortly followed by settlement. The first land parcels in the Liverpool area were granted in 1798.</p>
Peopling Australia	Migration
	<p>The area was the location of early European settlement along Georges River. The site was originally part of the early nineteenth century land grants to Thomas Moore of which he received a total of 8000 acres on the east bank of the Georges River. Charles Throsby received a land grant of 600 acres at Glenfield. The regional landscape was dominated by agricultural use and most of the Moorebank Estate remained bushland.</p>

² The DNSDC was previously listed on the Commonwealth Heritage List (CHL) but as a result of the Department of Defence vacating the DSND site in 2015, it was removed from the CHL.

Australian Historic Theme	NSW Theme
Developing local, regional and national economies	Agriculture
	<p>The site was initially developed for the Moorebank Estate and later the Church of England for agricultural purposes from the early 1800s to the early 1900s. The regional landscape retained the agricultural presence up until residential development in the mid-twentieth century.</p>
Developing local, regional and national economies	Environment – cultural landscape
	<p>The subdivision of the Moorebank Estate and the development of the Moorebank Defence area is reflective of the cultural landscape of the region. The area remained rural with mostly agricultural land use surrounding the defence land.</p>
Developing local, regional and national economies	Events
	<p>The site is connected to WWI and WWII in its use as the training area for recruits, the Moorebank Defence site, the School of Military Engineering, the Ordnance Stores, all associated with significant events in the history of Australia.</p>
Developing local, regional and national economies	Health
	<p>A WWI isolation camp and hospital were originally located on the site. These reflected the health systems of the time, especially in a war environment.</p>
Developing local, regional and national economies	Mining
	<p>Sand mining activities and infrastructure were located on the eastern bank of the Georges River. The track ran from south of Anzac Road on the eastern side of Moorebank Avenue, westward across the avenue and then towards the southern part of the site. A sand loading stage and bins were located at the end of the rail line. The sand mine was no longer in use by May 1938, and the light rail line was later removed during World War II.</p>

Australian Historic Theme	NSW Theme
<p>Developing local, regional and national economies</p> 	<p>Pastoralism</p> <p>The development of Moorebank Estate, initially owned by Moore and later the Church of England, for pastoral industry purposes in the nineteenth century demonstrates this theme.</p>
<p>Developing local, regional and national economies</p> 	<p>Transport</p> <p>A light railway was used as part of the sand mining activities on the site during the 1930s. The track ran from the Ordnance Stores Siding south of Anzac Road on the eastern side of Moorebank Avenue, westward across the avenue and then towards the southern part of the site to the bank of the river.</p>
<p>Building settlements, towns and cities</p> 	<p>Land Tenure</p> <p>The early nineteenth century land grants were part of the land tenure of the area. This was demonstrated in the subdivision into various estates, such as the passing of Moorebank Estate to Church of England in the mid nineteenth century.</p>
<p>Building settlements, towns and cities</p> 	<p>Accommodation</p> <p>Accommodation on the site included the WWI isolation camp, WWII barracks (P1 buildings), and the CUST Hut. These reflected the types of structures and architectural styles used in defence environments. To the immediate north of the site the German Internment Camp, in both WWI and WWII, housed thousands of prisoners of war and internees.</p>
<p>Educating</p> 	<p>Education</p> <p>The site was used for military training and was the base of the School of Military Engineering (SME). The SME was the largest of the Defence units on the site and was established during WWII. It was home to the Royal Australian Engineers. Other training facilities/schools on site included the School of Signals, Central Training Depot, specialist dog training, explosive ordnance disposal and the nuclear, biological and chemical warfare wing. During WWI, the site was the training area for new recruits to the Light Horse, Engineers and Field Mining Companies.</p>

Australian Historic Theme	NSW Theme
Governing 	Defence <p>The site demonstrates the defence of Australia through military training, and the WWI and WWII camps/barracks. This is also remembered in the establishment of the commemorative garden, memorials and chapel on site.</p> <p>The site demonstrates the historic and contemporary role of Defence in Australia's response to war, from the initial use in early 1900s to the present, and the surrounding military use of the area over a considerable time period, particularly the Liverpool Training Camp. It demonstrates the process of military storage and distribution in Australia, and the built heritage related to that process.</p>
Developing Australia's cultural life 	Domestic life <p>The military camps and barracks reflected the domestic life of defence personnel. The buildings demonstrated the different housing for various needs such as the temporary tents for the annual camps, as well as built marriage quarters. The history of the site demonstrates how domestic life was placed within a military environment.</p>
Developing Australia's cultural life  	Creative endeavour <p>The camp buildings, including the invention of the CUST and construction of the STRARCH Hanger, demonstrate creative endeavour. In building construction.</p> <p>The WWII timber post and beam, and composite timber and steel, buildings on the site demonstrate the planning and construction of Defence storage buildings within the Australian context, using Australian timbers and other materials.</p>
Marking the phases of life 	Birth and Death <p>The establishment of a commemorative garden marks the life and death of the people who trained, worked, and lived at the site. Memorials and a chapel and engravings on the Harris railway bridge also reflect this theme.</p>
Marking the phases of life 	Persons <p>The site is associated with Thomas Moore - one of the largest landowners in NSW, labelled the 'King of Liverpool'. The site is associated with Lord Kitchener's visit to NSW - Kitchener House was used by Lord Kitchener in 1910 to review the status of the Australian army. Nearby, Glenfield Farm is associated with Dr Charles Throsby, his nephew Charles Throsby and his family; and Collingwood House with Eber Bunker, the 'father of the Australian whaling industry'.</p>

2.4 Key Stories for Interpretation

The Moorebank area is a rich and extensive landscape with diverse histories and, as such, the number and range of key historic themes that provide context for understanding the landscape is great. In order to simplify the interpretive structure and to provide some major anchor-points, three key interpretative stories were identified in the Heritage Interpretation Strategy which encapsulate the historical evolution of the area. The key stories were developed through the analysis of the historic themes outlined above, and allow interpretive media to be arranged in accessible groupings.

Key stories are a vehicle for structuring information to convey the layered history of the site and its cultural landscape. The two sites which make up the MIT site – MPE and MPW – share a common history. Their proximity, on each side of Moorebank Avenue, means that both sites have a similar Aboriginal history, both were part of the land parcels of the 1880s, both were associated with early military activity in the area, and both were Defence sites for different military usage.

Key stories for interpretation at the MIT site consist of the following:

- Aboriginal history
- Early settlement and land use
- Australia's military defence (with relevant sub themes)

These three interpretive focal points have formed the basis for developing the draft content of this HIP.

3.0 INTERPRETIVE STRATEGIES

3.1 Interpretive Approach

- to present the Moorebank site as a locally distinct and representative cultural landscape which is the product of numerous phases of land-use
- incorporate documentary research and graphic material to illustrate and express the historic significance of the site in a clear and engaging manner
- ensure that interpretive media are accessible and designed to engage and stimulate interest
- collaborate with Traditional owners and relevant Aboriginal groups to ensure interpretation strategies adhere to the cultural heritage significance of the area
- ensure that on-site interpretive media are developed in a way that complements the facility/landscape design of the site and the historical characteristics of the area and surrounding landscape.

3.2 Constraints and Limitations

Due to the industrial nature of the site, it is unlikely that public access will be available or encouraged. Worker and visitors access will largely be limited to the Freight Village areas, as the bulk of the development will contain autotomised facilities. Therefore the heritage interpretation components have been focused in one area, the MPE Freight Village which will have the most frequent visitation by workers and visitors.

In addition, both on-site and off-site interpretation approaches have been included in order to reach as broad an audience as possible, and to encourage public appreciation but not necessarily encourage visitors to the site.

At the time of writing the HIP, the detailed design stage of the Freight Village and surrounding landscaping had yet to commence. This detailed design process is planned for 2020. As such, the HIP provides suggestions for location and style of interpretive material only, and will require further review and modifications during the development of the Urban Design and Landscaping Plan and the detailed design stage of the Freight Village.

3.3 Audience Identification.

Heritage interpretation is most effective when potential audiences are identified and specifically targeted. It is important to define audience categories to ensure that interpretive media - their location, orientation, content and design - are designed to provide engaging and informative experiences relevant to those audiences.

On-site audiences include:

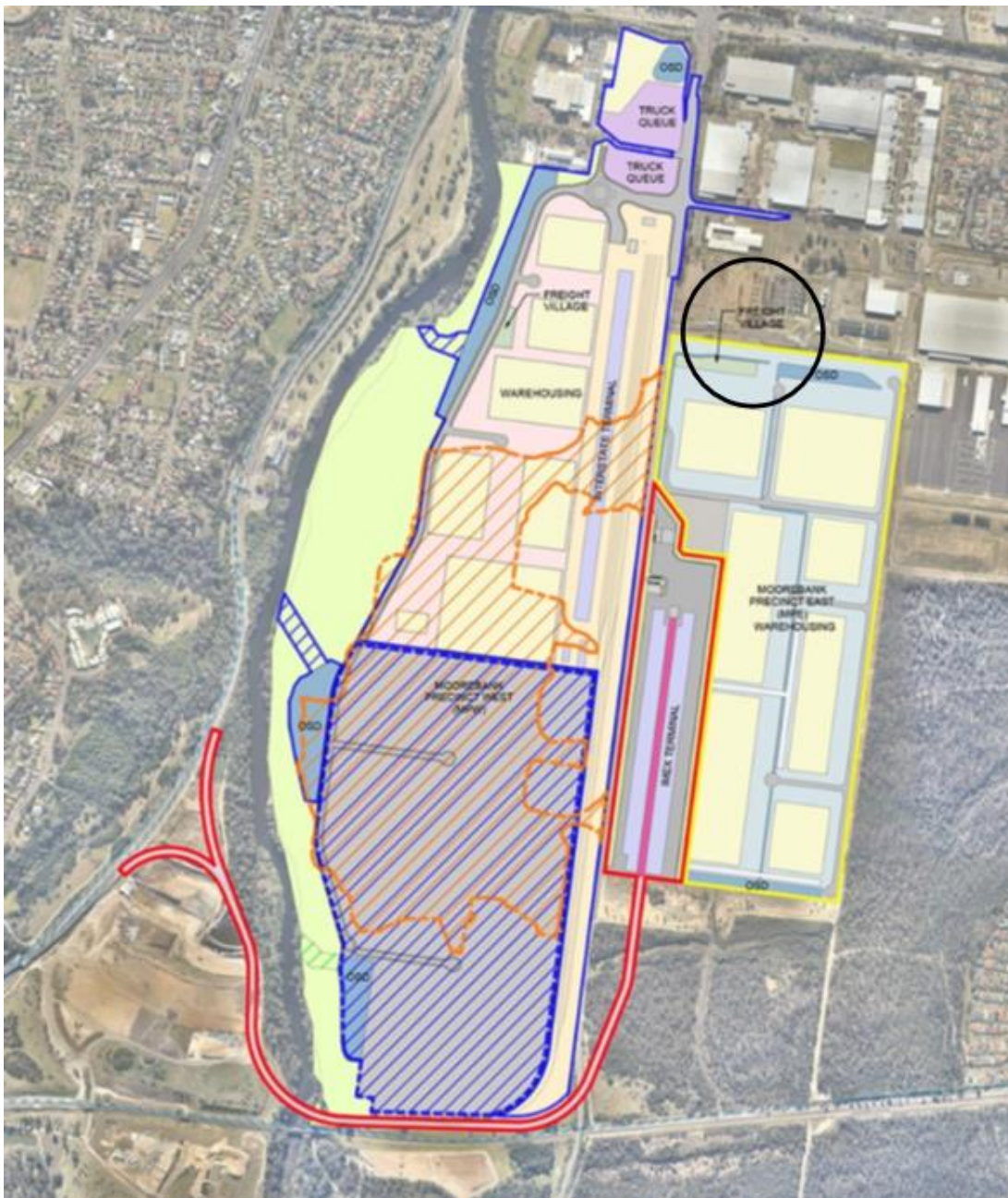
- on-site employees (many with connections to the local area)
- on-site visitors (largely limited to visitors associated with the facility's activities, temporary contractors)

Off-site audiences are broader, including:

- Aboriginal groups and individuals with a connection to the area
- local community with an interest in the site and its history
- local history groups
- enthusiasts of military history, including military history associations and organisations
- secondary school Australian history students

The site will not be a public venue and therefore on-site audiences are largely confined to specific groups, such as on-site employees and visitors. While part of the site will be accessible to the public, such as the entrance/exit areas, car parks and the Freight Village, it is unlikely that this facility would attract many public visitors.

Project site, with Freight Village location marked (base map: SIMTA)



3.4 Consultation Process

A key component for developing this HIP has been community and stakeholder consultation. This has occurred with Registered Aboriginal Parties (RAPs), the Moorebank Heritage Group, the Dept of Defence, and Liverpool City Council as required by Condition B102. A summary of the consultation process with all groups is given below, together with major considerations and recommendations raised by the groups.

3.4.1 Consultation with Registered Aboriginal Parties (RAPs)

Aboriginal community consultation has been a feature of the Early Works and the Concept approval processes, and was a key component of the initial Heritage Interpretation Strategies developed for MPW and MPE in 2017 (Artefact 2017a, 2017b). The details of the meetings and the consultation logs for that initial process were included in the previous Heritage Interpretation Strategies.

The RAPs that are registered for the project are:

- Banyadjaminga
- Cubbitch Barta Native Title Claimants Aboriginal Corporation
- Darug Aboriginal Cultural Heritage Assessments
- Darug Aboriginal Landcare Incorporated
- Darug Custodian Aboriginal Corporation
- Darug Land Observations
- Darug Tribal Aboriginal Corporation (DTAC)
- Gandangara Local Aboriginal Land Council
- Tharawal Local Aboriginal Land Council
- Tocomwall Pty Ltd.

All RAPs were contacted and sent a copy of the draft content of the Aboriginal heritage interpretation material on 20 March 2019, with a two week time period for review. Comments were received from five RAPs. A reminder email was sent to the RAPs who had not responded on 1 April 2019. No further responses were received.

In summary, the responses received were

- Cubbitch Barat Native Title Claimants Aboriginal Corporation: query about a date of a report, advice that a relative was shown in a historic image but no concern expressed about reproducing the image, a query that the area was the country of the Darug and Dharawal not the Gundungurra, and a general comment that it is hard to deal with interpretation of places when places have been destroyed. (written response)
- Darug Aboriginal Land Care: agree with the interpretive panels, (written response)
- Darug Custodian Aboriginal Corporation: request to include more information about fire stick farming; request to mention that Aboriginal people care for cultural sites, with archaeologists, and show an image of the community; request to include Darug artwork in the panel design (written response)

- Darug Land Observations: responded that they support the heritage interpretation for the Moorebank Intermodal Terminal (written response)
- Gandangara Local Aboriginal Land Council: responded that the interpretive material looks good (phone response)

Changes were made to the draft content of the interpretive panels based on these comments, and Darug Custodian Aboriginal Corporation was asked to suggest an appropriate contemporary community image to include. A consultation log is attached as Appendix A.

Prior to finalising interpretive material at the project design stage associated with the Freight Village, the RAPs will be contacted again to provide feedback on the final designed interpretive content.

3.4.2 Consultation with Moorebank Heritage Group

Throughout the development of the HISs in 2016 and 2017, the Moorebank Heritage Group (MHG) has been involved in consultation, with meetings held in 2016 and 2017. The details of the meetings and the consultation logs were included in the previous HISs. The input of the MHG influenced the final HISs, and was considered important for reviewing the more detailed content of the subsequent HIP.

The MHG was contacted and provided with a draft of the interpretive content for the HIP on 3 March 2019, with two weeks provided for review. Feedback was received on 5 April 2019. The text was also reviewed by historian [REDACTED], former member of the MHG, with feedback provided between 1-7 April 2019. A large number of comments, editing changes to the text and images for the interpretive panels and pages were provided by the MHG and [REDACTED], many of which have been incorporated into the HIP. A consultation log is attached as Appendix A.

Prior to finalising interpretive material at the project design stage associated with the Freight Village, MHG will be contacted again to provide feedback on the final designed interpretive content.

3.4.3 Consultation with Dept of Defence

A copy of the draft HIP was provided to the project's Dept of Defence contact [REDACTED], (A/Assistant Director Environment & Sustainability, Service Delivery Division, Estate & Infrastructure Group – Northern NSW) on 10 April 2019. A response was received on 2 May 2019 that there were no further comments on the report (see consultation log, Appendix A).

In addition, a copy of the draft interpretive materials was provided to the Australian Army Museum of Military Engineering (AAMME) at Holsworthy Barracks on 17 March 2019 with a request for any suitable images to accompany the text. The curator of the AAMME provided information on image captions, together with overall support for the interpretive materials (see consultation log, Appendix A).

3.4.4 Consultation with Liverpool City Council

A copy of the draft HIP was provided to Liverpool City Council on 10 April 2019. The Heritage Manager, Thomas Wheler provided support for the HIP and gave a number of comments on the content on 6 May 2019: the importance of a range of strategies particularly gateway markers/public art, local Aboriginal artist input into panel design, and inclusion of more information about Clive Steel ('Steel Barracks'). These will be addressed at the design stage of the project (see consultation log, Appendix A).

3.4.5 Consultation with NSW Heritage Division

A copy of the draft HIP was provided to OEH Heritage Division by Tactical on 17 April 2019. Feedback was received on 10 May 2019 from Tim Oliver, Northwest Heritage Division, that there were no comments on the draft HIP. Further feedback was received on 31 May 2019 from Siobhan Lavelle, Senior Team Leader Heritage Division, that the HIP 'provides an appropriate response to the constraints and opportunities presented by the project, noting that the Plan is unable to specify precise details until the design of the Freight Village is finalised.... the current proposal is considered to meet the Development Consent Conditions B101 and B102.' (see consultation log, Appendix A).

4.0 INTERPRETIVE MEDIA

A range of possible interpretive media were provided in the HISs (Artefact 2017a, 2017b), and from that list and after discussion with Tactical and Qube, the following interpretive media have been further developed in this HIP:

On-site:

- Interpretative panels (4) at the Freight Village area – as either wall based interpretive panels, incorporated into seating, or photo murals
- Adaptive re-use of architectural elements at the Freight Village area, site entrance/exit areas, in landscaping
- Interpretive historical artefact display at the Freight Village area

Off-site:

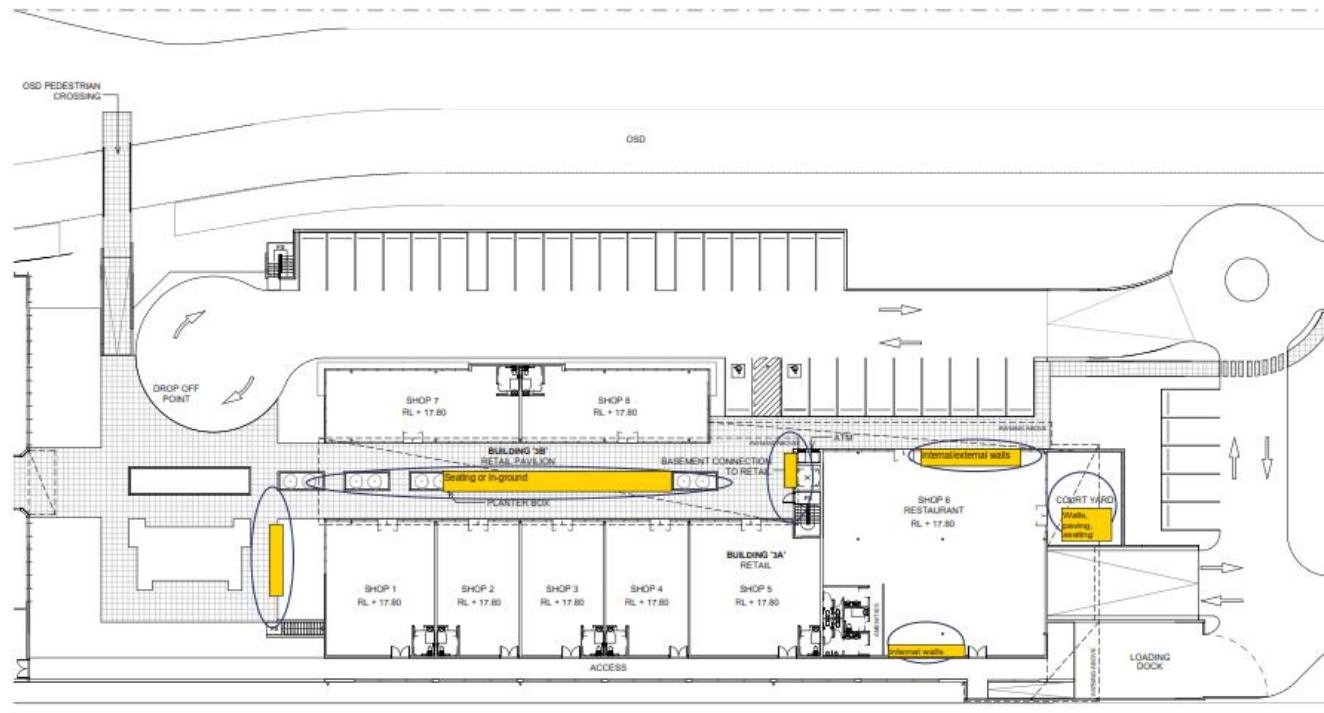
- 'Moorebank's Heritage' Website pages, hosted by SIMTA website, then transitioned to Moorebank Logistics Park website

The following sections provide the draft content and schematics for these four interpretive media. Please note that at time of developing the HIP, designs for the Freight Village and surrounding landscaping were not in place, so it has not been possible at this stage to develop the final content and detailed design of the interpretive media. What follows as draft content in these sections will therefore need to be refined, and designs of panels and displays finalised at the detailed design stage of the project.

Plan of ground floor of Freight Village area, with potential locations for interpretive media marked in yellow (base plan – Tactical)

FREIGHT VILLAGE - BLG 3 - GROUND FLOOR PLAN

STATE SIGNIFICANT DEVELOPMENT



BUILDING 3 - RETAIL - GROUND FLOOR
1 : 200

LEGEND:	
PS	FIRE STATION
RSZ	ROLLER SHUTTER DOOR
DP	DOWN PIPE
OSD	ON SITE DETENTION
NOTES:	
1. ALL LEVELS AND ELEVATIONS ARE INDICATED & SHOULD BE USED IN CONSTRUCTION DETAILS AND STAGES FOR FINAL LEVELS OF ALL SITES WORKS AND INFRASTRUCTURE.	
2. ALL SERVICES RELOCATION TO BE CONFIRMED BY EAS.	
Scale	1 : 200
Sheet No.	115123_A_SSD_1420
Sheet Title	FREIGHT VILLAGE - BLG 3 - GROUND FLOOR PLAN

	MOOREBANK PRECINCT EAST STAGE 2 Project Address: MOOREBANK AVENUE, MOOREBANK, NSW			REID CAMPBELL Architects, Interior, Planning Level 15, 120 St John Street North Sydney NSW 1585 Australia Tel: 61 2 9550 5511 Email: rc@reidcampbell.com.au Fax: 61 2 9550 5505 Web: www.reidcampbell.com.au	Drawing Title: FREIGHT VILLAGE - BLG 3 - GROUND FLOOR PLAN	Date: 20/06/2017
						Scale: 1 : 200

4.1 Interpretive Panels

Well structured, well written and visually attractive interpretive panels are an excellent media for effectively conveying key messages. If integrated into the design of the site/facility, they can be strategically located to gain appropriate exposure.

Key interpretive stories

The focus for the four interpretive panels at the Moorebank site are:

- For tens of thousands of years...: a brief introduction to the history of Aboriginal people from the Moorebank region
- Early Moorebank: history of early European settlement in Moorebank, particularly focusing on Thomas Moore and his estate
- Military history: a brief overview of Moorebank's early and WW I military history
- Military history: Moorebank's later military history, WW II and the School of Military Engineering.

Possible location

As identified in the HISs, the interpretive panels are to be located in the MPE Freight Village, the on-site facility most frequented by people. If appropriate they could be wall mounted panels in a café or seating area, allowing time for viewers to read and reflect on the information. Alternatively, including large scale historical images on walls in main walkways, together with contextual information panels, could be considered. Several possible locations have been indicated on the plan on page 19. The final location, style and graphics for the panels would be developed at detailed design stage.

A link to the more extensive 'Moorebank's heritage' webpages (see section 4.4) could be provided from the interpretive panels through the use of QR codes. The inclusion of QR codes would be addressed at the detailed design stage of the panels.

Possible design of interpretive panels

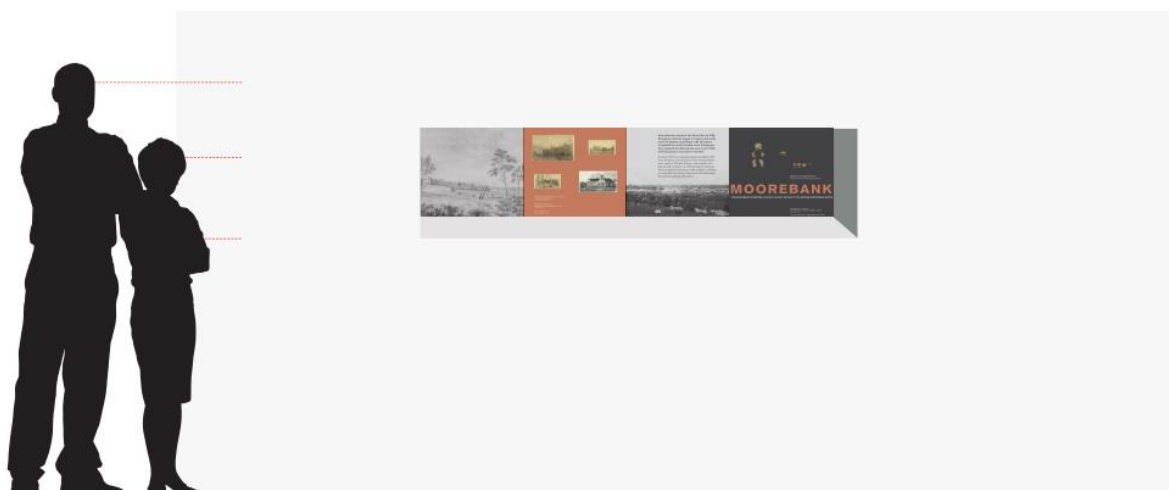
Three options are suggested for the design of the interpretive panels, and the choice will be dependent on their final location within the Freight Village area:

- Four vertical or horizontal interpretive panels, with a range of historical images
- Four large images used as wall murals, each with a smaller contextualising text panel
- Use of text and images in functional elements such as seating

Schematics of possible interpretive panels as vertical board panels



Schematics of possible interpretive panels as horizontal walkway panels



Examples of large scale photo murals, with explanatory text



Examples of interpretive elements in seating and linked to paving inlays



4.1.1 Interpretive panel content

The content for the four interpretive panels is shown on the following pages. The text has been written based on historical research and edited in response to review feedback from consultations with a wide range of stakeholders (see Section 4.4). In particular, input from the Moorebank Heritage Group has been valuable in developing the content. Panel content is text is limited to text of approx. 300 words and four-five images, but may need further editing when the detailed design is undertaken. As noted, the content will require further review and modification at the design development stage of the Freight Village to ensure it is consistent in size and scope with the overall design of the facility.

- Panel 1: For tens of thousands of years... - brief introduction to the history of Aboriginal people from the Moorebank region
- Panel 2: Early Moorebank - history of early European settlement in Moorebank, particularly focusing on Thomas Moore and his estate
- Panel 3: Military history - a brief overview of Moorebank's early and WW I military history
- Panel 4: Military history - Moorebank's later military history, WW II and the School of Military Engineering.

Panel 1: text and image choices**For tens of thousands of years...**

For tens of thousands of years the land which is now Moorebank has been the country of the Dharawal and the Darug groups. This area was probably part of the boundary of these groups, resulting in many gatherings and economic exchanges here. Nearby was an important travel corridor between the Cumberland Plain and the Illawarra regions. With the Georges River close by, this area would have been rich with food, water and other resources. Aboriginal people managed the landscape here by firing the area to herd animals for hunting and encourage new plant growth.

Archaeological investigations here uncovered about 1,500 stone artefacts including backed blades, scrapers, flakes and cores. Many were made from silcrete, probably sourced from out of the area, and some showed signs of heat treatment. Some of the artefacts were dated to more than 22,000 years ago. These finds provide a wealth of information about how Aboriginal people managed the environment, hunted, gathered, prepared food and lived in a community.

Europeans settled in Moorebank from the 1790s, and Aboriginal people were increasingly displaced, as traditional lands were cleared, fenced and cultivated for agriculture. The settlers also claimed many natural resources, such as pasture, timber, fishing grounds and water sources. There are early reports of farmers providing shelter and protection, but also reports of Europeans destroying traditional campsites and hunting grounds, taking resources, and accounts of abduction and assault, as well as the devastating effects of the spread of disease on Aboriginal people.

Despite the vast impacts since European arrival, this area continues to hold great cultural significance for Aboriginal people. Local Aboriginal people are actively involved in caring for the many significant sites in the area. The story of Aboriginal people around Moorebank is one of survival and cultural continuation, and today the greater Liverpool area has one of the highest demographics of Indigenous Australians in the Sydney region.

'Aborigines using fire to hunt kangaroos', 1817, J Lycett (NLA)



'Australian Aborigines. Cabramatta Tribe' (thought to be at Bigge Park, Liverpool) 1840s, PHF Phelps (SLNSW)



Indigenous Australians sitting on a settlers farm (Charles Throsby's nearby estate), 1826 A Earle (NLA)

Indigenous people at Nepean River near John Macarthur's estate at Camden, 1828, LPA Bichebois (NLA)



Liverpool, NSW (view from Moorebank) 1824, J. Lycett (NGA)





Awaiting a suitable contemporary image from by RAPs, with permissions

Some of the stone tools excavated at Moorebank
(Biosis, 2018, Extent/CPB, 2018)



Panel 2: text and image choices

Early Moorebank

Soon after the arrival of the First Fleet in Sydney in 1788, European colonists began to explore and settle south of Sydney, including in the Liverpool, Campbelltown and Camden areas. Interest in farming along the Georges River began in the 1790s and the first land grants were made in 1798.

In about 1809 Thomas Moore, a free settler who had arrived in Sydney in 1796 aboard the *Britannia*, received two large land grants of 1300 acres along the eastern bank of the Georges River. Moore named this property *Moore Bank*, cultivating the land for agriculture and supplying the Colony with meat and timber.

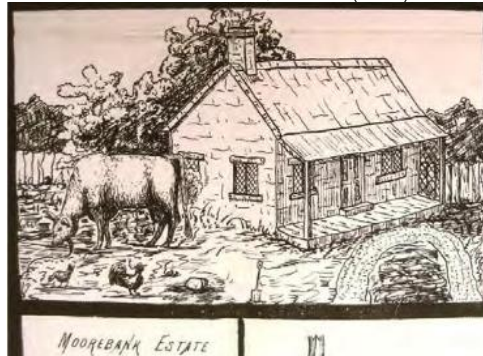
Moore held a number of civic position in the Colony, including master boat builder and Surveyor of Timber at Sydney. In 1810 Governor Macquarie commissioned Moore to oversee the building of the new town of Liverpool. Moore was also appointed a magistrate for the Georges River and for Liverpool, and in 1821 for the state of New South Wales. Moore acquired great wealth through his property, farming, banking and business interests, adding to his land grants to become one of Sydney's largest landholders. He was also a generous benefactor supporting churches and banks at Liverpool and Sydney. By the mid 1820s, Moore was residing at a substantial two storey residence in Liverpool, on part of his Moorebank estate.

Moore had married convict Rachael Turner in 1797 but they had no children. When Moore died in 1840, he left 6,400 acres, including his Moorebank estate, to the Church of England to establish a training centre for clergymen. The Church established Moore Theological College at his Liverpool residence in 1856 which continued to operate there until 1891 when it was relocated to Newtown. In the 1890s the Church subdivided and sold much of the estate land as residential and small farming allotments, which were used for orchards, vineyards and poultry farming. The Moorebank Intermodal Precinct is built on part of the original Moorebank estate.

Moorebank, near Liverpool - The Residence of Thomas Moore, c1819 (SLNSW)



A real estate agent's depiction of life on the Moorebank Farms Estate, c1888 (NLA)

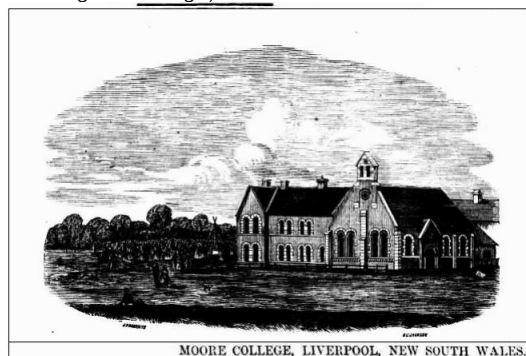


View from Moorebank area to Liverpool, NSW, 1824 J Lycett (NLA)



Portrait of Thomas Moore (1762-1840), 1840,

Moore College, Liverpool, c1865 (Moore Theological College)



W.Griffith (Moore Theological College)



Moorebank Farms sale poster, c1885 (NLA)



Panel 3: text and image choices**Military history: the early years and World War I**

For over 130 years, the Liverpool area has been a key part of Australia's military history. Over 200,000 people serving in Australia's military forces were stationed and trained here. The site was the first permanent training facility in NSW and remained the largest in Australia for many decades.

The military association with the Liverpool area began in 1811 with the construction of Liverpool barracks for British troops to oversee convict work gangs. From the 1890s annual military training camps for citizen forces were held in the Liverpool area including infantry, light horse, artillery, engineers, signals training and engaging in mock battles.

In 1909, the Commonwealth Government invited British Field Marshall Herbert Kitchener to review the state of Australia's land defences. Kitchener visited the Liverpool training area in 1910 to review the capabilities and operations of the NSW forces. He recommended the establishment of the Australian Imperial Forces (AIF) and a permanent location specifically for military field training purposes.

From 1912 the government purchased over 54,000 acres for the Liverpool Field Training Area. The land stretched along the eastern side of the Georges River, covering parts of Moorebank and Holsworthy, east to Heathcote and south to Eckersley. Some basic military facilities were built, including a remount depot for Australian Light Horse Regiments at Holsworthy. In the early years, 2000 troops were still sleeping in tents, but by WW I tents were replaced by permanent structures at the main Moorebank camp including a field hospital with isolation wards (the first of its kind in Australia), barracks, railway, kitchens, stables, stores, rifle, grenade and artillery ranges, and soldiers' support services. It is estimated that over 120,000 troupes and 40,000 horses passed through the camp during WW I.

In 1914 an internment camp was established at nearby Holsworthy to hold 6,000 men of German or Austro-Hungarian ancestry as both internees and prisoners of war. The camp had harsh conditions and grew to be the size of a small town. The internees were employed as labour on local road works, the Liverpool to Holsworthy military railway, Anzac Rifle Range, quarrying, charcoal burning and timber milling activities. The camp was closed in 1919.

View looking east from the railway line across the George's River to Liverpool military camp, 1910-11 (Campbelltown City Library)



One of the main AIF training camps in the state, Liverpool, NSW. 1914 (AWM)



Liverpool Australian Army Field Hospital, 1914-1918 (AWM)

Accommodation huts, 1916 (AWM)



The Harris Creek Railway Bridge built by German internees in 1917 (AWM)



Group portrait of members of D Company, 18th



AUSTRALIAN WAR MEMORIAL

H18453

Battalion, taken camp shortly before the troops embarked to take part in World War 1, 1915 (AWM)



AUSTRALIAN WAR MEMORIAL

H12926

Panel 4: text and image choices**Military history: World War II and the expansion of the camp**

During World War II the Liverpool military camp at Moorebank underwent further developments, and a number of new units were established including the School of Military Engineering home to the Corps of Royal Australian Engineers, the School of Signals, the Armoured Fighting Vehicle Trade Training Centre, the Royal Australian Electrical and Mechanical Engineers, and the Australian Women's Army Service. Over the course of the WW II, 40,000 troops were trained at the camp, and 7,450 students were educated at School of Military Engineering.

At the outbreak of World War II the internment camp was reinstated at the nearby rifle range. Buildings were quickly converted into prisoner accommodation and surrounded with barbed wire fences. Thousands of men and women with ancestry from German, Italian, Austria-Hungarian and many other countries were held in the camp until it closed in 1946.

In 1943 a large ordinance store depot was established on the eastern side of Moorebank Avenue covering more than 80 hectares. By 1944 it was already undergoing expansions with fifteen large timber post and beam warehouses built to accommodate a wide range of military stores and items, a carpentry workshop, administration building, offices, amenities and a quartermaster's store. A further three massive prefabricated timber and steel warehouses were shipped from the United States in the 1940s and installed on site.

In the 1960s and 70s military training continued with a renewed focus on the Vietnam War, and a facility for training military dogs. As the School of Military Engineering had expanded to include new training services, it was renamed Steele Barracks in 1999 after Major General Sir Clive Steele, an army engineer who played a key role in World War II. Many of the buildings on site were renovated throughout the 1990s and early 2000s. In 2015 the site closed and the Royal Australian Engineers and other units were relocated to nearby Holsworthy Barracks.

Members of the senior officer's course constructing a box girder bridge, Moorebank, 1944 (AWM)



An overturned tank recovered at the School of Military Engineering, 1944 (AWM)



A group of Italian prisoners of war behind the fence of the main compound, Liverpool internment camp, 1945 (AWM)



Members of the Australian Women's Army Service relaxing in their tent, 1944 (AWM)



Gun repairs, Corporal W.Radford and Private N. Long, 1944 (AWM)



AUSTRALIAN WAR MEMORIAL

084023

Australian soldiers test new rifles and machine guns, Moorebank NSW 1962 (AWM)



SME site, 2015 (AAMME)



4.2 Artefact Display

Interpretive displays of historical artefacts would provide access to relevant and representative historical archaeological finds from the site, and enable viewers to more readily visualise the phases of previous use of the site. Over 11,000 historical artefacts were unearthed in the archaeological investigation. The majority were architectural items, however some 600 objects were of personal or domestic use. The objects have not yet been catalogued, however Biosis has assessed the artefact listing, and initially chosen 35 possible artefacts suitable for display, based on their representativeness, condition and visual appeal. The artefact listing is included as Appendix C and images are shown below. This is an initial listing only and will be reviewed and refined when the space available has been defined and the detailed designs of the Freight Village further progressed.

An object management summary has also been provided, as Appendix D, with recommendations for conservation of objects and required display conditions. The summary will need to be revisited once the suite of objects for display is confirmed at detailed design stage, however its inclusion in the HIP allows the client to plan for specific physical requirements and conditions for the artefact display.

While on display at the Freight Village, these objects will be separated from the main artefact collection. As such, comprehensive documentation is required to ensure that it is possible to link these artefacts with the main collection in the future. At the time of writing this HIP, there had been no decision on the long term storage and care of the artefacts, and they remained in the Biosis storage facility in Wollongong.

Key stories

The focus of the historical artefact display is

- Moorebank's military history (sub theme – life at the barracks)

Artefacts for display

An initial list of 34 artefacts for display has been provided by Biosis (see Appendix C). It consists of glass, metal and ceramic artefacts uncovered during the Biosis archaeological excavations in 2017 (Biosis 2018). This list is not definitive, as the size and type of display format is not yet known. A final choice of artefacts, together with contextual labels, should be prepared when the location, size and environmental conditions of the display area are known, during the detailed design stage of the Freight Village.

Beneath the surface at Moorebank (Biosis 2018)



Twenty four per cent of the artefacts found were glass, most being bottles for drink (wine, champagne, beer) some with embossed markers marks or content indicators, with a date range from 1866 to 1960, with most being early 1900s, (Biosis ID 2463, 2470, 2471, 2472, 2454,2455). The majority of the bottles were discovered in latrines deposits indicating the use of a quiet place to discard items possibly associated with prohibited activities.

Glass containers, medicine bottles and syringes were uncovered (Biosis ID 2621, 2606, 2549, 2571, 2685 ,2546, 2586, 2553, 2542, 2603, 2545). The date range for the glass medicine bottles is from 1912-1925; the glass syringes were in use from 1853 til the mid 1900s.



Personal artefacts such as spoons, toothbrushes, pipes, padlock, cosmetic containers, coins and medals were found (Biosis ID 2780,2856,2843,2778,2754,2752). Children's games: Bisque doll, glass marbles (made between 1901-1926) and glass toy tea cup (Biosis ID 2687, 2688, 2689, 2679)



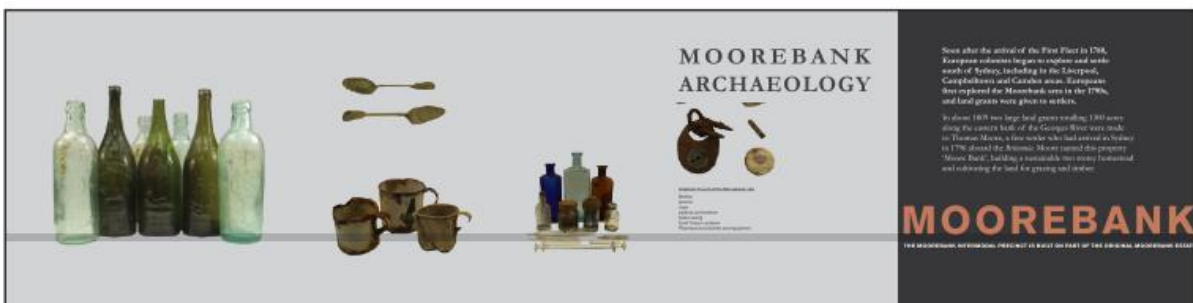
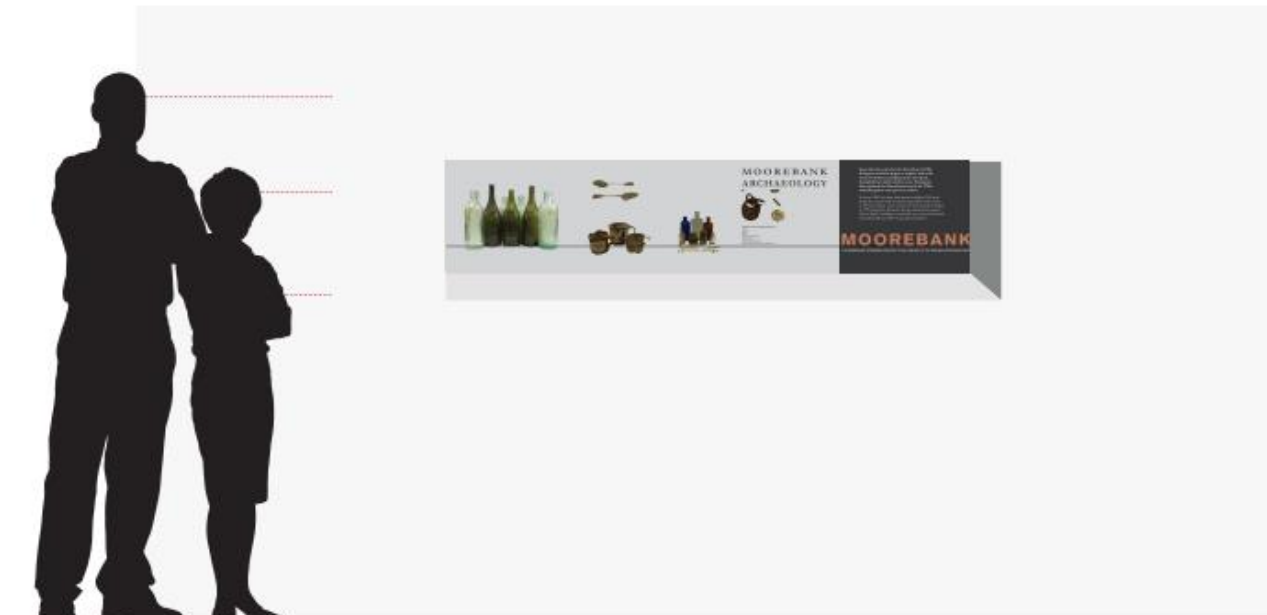
Enamelled tin cups probably from the barracks kitchens were found (Biosis ID 2798, 2799, 2807). A male urinal chamber pot, made of enamelled tin, used in the isolation wards of the military hospital was also located (Biosis ID 2720)



Location

For security and safety reasons it is recommended that the artefact display be located undercover /indoors in an appropriate section of the Freight Village. As stated, this should be decided at detailed design stage.

Schematic of possible artefact display:



Examples of recessed wall cases for artefact displays



4.3 Adaptive Re-use of Architectural Elements

A number of architectural elements from previous on-site structures have been salvaged and can be considered for adaptive re-use to support interpretation of the site. These include components of the CUST Hut, the STARCH Hangar, plaques from the Commemorative Garden, remaining sandstone blocks, and large timbers which could be re-used to stand alone as impressionistic interpretive devices such as sculptural elements or gateway/entrance markers. Using elements as functional forms, such as seating bases, could also be considered. The architectural elements would need to be closely integrated into the landscape design of the site.

Key themes

Key themes appropriate for the adaptive re-use of architectural elements:

- Australia's military history

Possible location

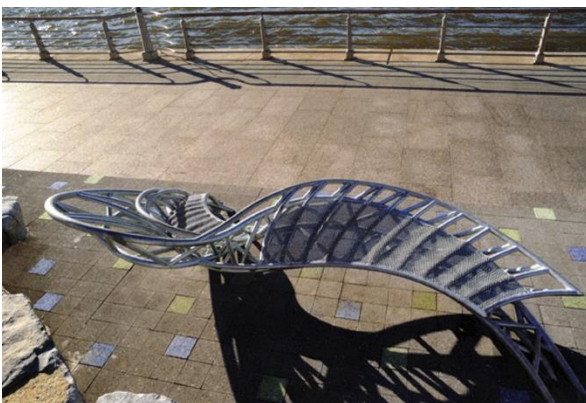
Architectural elements would be best located near the Freight Village, near the site entrances/exits or car parks so as to have the maximum exposure. The exact locations would need to be assessed once the design for the Freight Village and surrounding publicly accessible areas is defined. Once plans have progressed and appropriate elements chosen, associated signage would be developed to provide contextual information about the structures/elements' original uses.

Architectural elements salvaged from the site in storage: CUST hut trusses, plaques, sandstone blocks, STARCH hut trusses (Liberty)





Examples of re-use of architectural elements with interpretive functions other sites



4.4 Website Pages

Websites are one of the most flexible and accessible of interpretive devices available. they can reach an extremely wide audience, and be promoted with little effort. Dedicated pages within a website can provide a vehicle for layering of information, and easy access to a wide range of images, photographs and historical information. In addition, by linking the on-site media via QR codes to the website, a wealth of information would therefore accessible on-site with no extra investment.

Key stories

The focus of the webpages on 'Moorebank's heritage' are:

- Introductory page
- Aboriginal history
- Early Moorebank
- Military history
- Internment camps
- Technical innovations
- Snapshots
- Beneath the surface: archaeological investigations

Location/host

The webpages would be added as a focused section on the SIMTA website: <http://www.micl.com.au/simta>. In the first instance, it is suggested that a new section be added under 'The precinct' tab to accommodate the suite of pages on Moorebank's heritage. When Moorebank Logistics Park is fully developed, the webpages should translate over to that platform, so they remain specific to the location.

The designs of the webpages will be developed by the SIMTA web designer to ensure consistency of visual appeal and approach. It is recommended that the webpages be designed and uploaded as soon as is possible, to create a heritage presence for the site.

Content of webpages

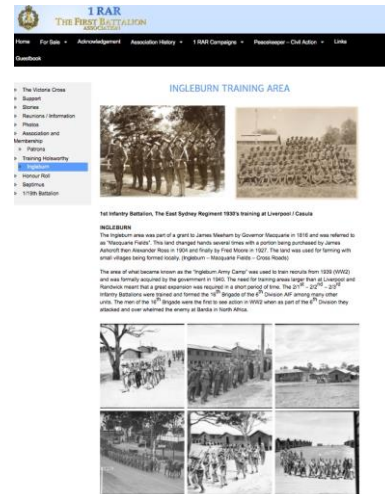
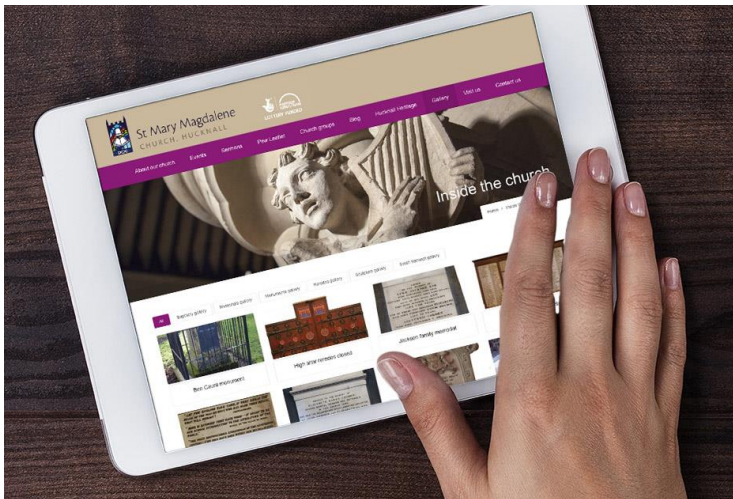
The web pages would contain more extensive information than that which appears on the smaller interpretive panels on site, however some of the introductory information is similar as the audiences for these two media will be different.

Following consultation with the SIMTA web designer, the structure of the web pages would be

- An introductory page with a key image, general information, and links to more detailed sections
- Seven detailed pages, each with one key image and several additional images. Key text bites would be highlighted in bold, and links provided to additional information/relevant external resources.

The draft content of the web pages appears in Appendix B. When the HIP is approved, the detailed design and layering of the information will be developed in consultation with the SIMTA website manager.

Webpage examples:



4.5 Maintenance and Contingency Plan

Any interpretive panels/displays/features will require on-going maintenance, such as regular cleaning and periodic remedial work to remove graffiti. The work should be coordinated with the normal day-to-day site cleaning duties of the area.

If it is decided to install an artefact display after review of the final designs for the Freight Village, initial planning can be based on the object management summary attached, and a more detailed object management plan will need to be produced. If it is decided to re-use components of the STRAACH and CUST huts for display or incorporated within functional items, an initial conservation assessment will be required, then preservative treatment and on-going maintenance.

Any web-based interpretive material will require a commitment for on-going maintenance by the web host.

The Contingency Plan, as per Condition C7(e) is outlined below, and provides information on managing unpredicted impacts to the heritage items on-site (artefact displays, re-used architectural material and interpretive panels), such as accidental damage that goes beyond the limitations of general maintenance:

Artefacts and heritage architectural items:

- monthly checks of artefact and heritage items on public display to ascertain any damage and, if a display case is used, of the environmental conditions of any display case (temperature and humidity levels), as part of the maintenance contractor's scope of works
- if damage to heritage items on public display is detected, a suitably qualified heritage consultant is to be informed and conservation works undertaken

Interpretive panels:

- monthly checks of interpretive panels, as part of the maintenance contractors scope of works
- if extensive damage is detected, panels are to be replaced

4.6 Periodic Review

As required by Condition C8, at least one month prior to the commencement of a new phase of the development, the HIP should be reviewed, and relevant updates included. In addition, the HIP will require periodic review every 12 months, as per Condition C7(h). This will ensure that the conditions under which artefacts and heritage items are displayed are kept to the appropriate standard and that information is current.

4.7 Copyright and Image Reproduction

All images (photographs, maps, illustrations, etc.) in this report are of a low quality. For the future production/graphic design of the interpretive material, high-resolution images will need to be purchased.

While copyright laws are complex, generally copyright is in place up until 70 years from the end of the year in which the creator of an image died or 70 years from the end of the year in which the image was first published. Images that are within copyright require permission to reproduce from the copyright holder and may incur a copyright fee and sourcing fee, and a copyright acknowledgement as specified by the image holder is included in all reproductions. All images more than 70 years old require permission to reproduce from the image holder and an acknowledgment as specified by the image holder. In addition, any images of identifiable deceased Aboriginal people should not be shown without permission from known relatives or Traditional Owners. Once the style and size of interpretive elements has been decided at detailed design stage, copyright clearances and/or permissions-to-publish must be obtained from the image/copyright holders for all images used in the interpretive material.

5.0 NEXT STEPS

This HIP has provided an approach and content for heritage interpretation at the Moorebank Intermodal Terminal site, developed in consultation with key stakeholders. The suite of interpretive material consists of:

On-site:

- Interpretative panels (4) at the Freight Village area – as either interpretive panels, incorporated into seating, or wall murals
- Adaptive re-use of architectural elements at the Freight Village area, site entrance/exit areas, in landscaping
- Interpretive historical artefact display at the Freight Village area

Off-site:

- Seven 'Moorebank's Heritage' Website pages, hosted by SIMTA website, then transitioned to Moorebank Logistics Park website

It is recommended that

- The interpretive material outlined in this HIP be endorsed
- Upon approval of the HIP, the off-site interpretive element - Moorebank's Heritage webpages - be designed and uploaded, creating a heritage presence at an early stage in the project's development.
- Final modifications to the on-site interpretive elements be included within the Urban Design Landscaping Plan and at the detailed design stage of the Freight Village. This is planned for 2020.
- Consider engaging an Aboriginal artist/graphic designer to produce relevant graphics for the on-site panels
- MHG and RAPs be provided with a further opportunity to comment on the final interpretive material at the detailed design stage associated with the Freight Village.

The following summarises the HIP development process steps as at 27 June 2019:

Step	Responsibility	Status
Development of draft content, including consultation with Moorebank Heritage Group and RAPs	Artefact	Completed, 10 April 2019
Client review of the draft HIP, confirmation of approach and content	Tactical/QUBE	Completed, 16 April 2019
Review by Defence and Liverpool Council	Artefact	Completed, 6 May 2019
Draft HIP submitted to OEH Heritage Div	Tactical	Completed, 10 May 2019
Final HIP produced, incorporating agency feedback	Artefact	10 May 2019 (and OEH feedback 31 May 2019)
Submission to DP&E/Secretary	Tactical	Submitted May 2019, feedback 13 and 26 June 2019. Completed

6.0 REFERENCES

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NOHC. 2014d. Moorebank Intermodal Terminal [Stage1] Chapter 21 - European Heritage Assessment. Report prepared for Parsons Brinckerhoff.

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APPENDIX A: CONSULTATION LOG

Agency	Contact	Action Date	Outcome/Notes	Comments /Feedback	Response
Office of the Environment and Heritage, Heritage Division	heritagemailbox@environment.nsw.gov.au.	17/04/2019	Tactical submitted draft HIP to heritage mailbox on 17/4/2019	<p>Tactical received email response from [REDACTED], Heritage Operation Managers, Regional Ops, North Metro Heritage Division, on 10/05/2019 that they had no comments on the HIP.</p> <p>Tactical received an email response from [REDACTED] Senior Team Leader, Heritage Division, on 31/05/2019 stating that 'the OEH Heritage Division has reviewed the Plan. The overall approach provides an appropriate response to the constraints and opportunities presented by the project, noting that the Plan is unable to specify precise details until the design of the Freight Village is finalised.</p> <p>We note that the Moorebank Intermodal Terminal Heritage Interpretation Plan has been informed by ICOMOS and NSW Heritage Office guidelines and based on a range of historical and archaeological resources. used appropriate consultation with RAPs and other interested parties has been used to refine the proposed interpretation recognizes that there are limited opportunities for public access due to the industrial nature of the development.</p> <p>On site interpretative media is therefore concentrated around the entrance and in the Freight Village which can be accessed by employees, visitors and potentially other audiences (local and Aboriginal communities, historical groups, military enthusiasts). 4 "key interpretive stories" are identified to be displayed on interpretive panels; Aboriginal occupation, early</p>	Consultation closed.

Agency	Contact	Action Date	Outcome/Notes	Comments /Feedback	Response
				<p>European history, WW1 military uses and WW2 and later military history. Artefacts from the Biosis' 2017 excavations will also be displayed subject to the provision of appropriate display conditions to ensure their conservation.</p> <p>It is proposed that architectural elements salvaged from the site, particularly those demonstrating the military engineering heritage and the site's association with the military dog squad, will be incorporate into the landscaping in the form of sculptures, entrance/exit, seating or landscape features.</p> <p>Off-site media, a website, is aimed at providing more extensive information to a wider audience and is proposed to link with on-site resources via QR codes.</p> <p>Because the detailed design phase of the Freight Village and surrounding landscaping has not yet commenced, the design of all interpretive elements is discussed in general terms and location and precise specification of interpretive material are yet to be finalised. Within that limitation the current proposal is considered to meet the Development Consent Conditions B101 and B102.</p>	
Tharawal Local Aboriginal Land Council (TLALC)	██████████	20/3/2019	<p>TLALC was contacted via email and sent a copy of the draft HIS approach, with a letter requesting comments by 2/4/2019</p> <p>Reminder email sent 1/4/2019</p>	No response	Consultation closed.

Agency	Contact	Action Date	Outcome/Notes	Comments /Feedback	Response
Gandangarra Local Aboriginal land Council	■■■■■	20/3/2019	Gandangarra LALC was contacted via email and sent a copy of the draft HIS approach, with a letter requesting comments by 2/4/2019 Reminder email sent 1/4/2019	■■■■■ responded by phone on 2/4/2019; asked about the long term management of the artefacts, and said that the interpretive information looked alright.	Artefact thanked him, and suggested he contact Biosis about the long term management the artefacts. Consultation closed.
Cubbitch Barta Native Title Claimants Aboriginal Corporation (CBNTCAC)	■■■■■	20/3/2019	CBNTCAC was contacted via email and sent a copy of the draft HIS approach, with a letter requesting comments 2/4/2019	■■■■■ sent a letter (29/3/2019) thanking Artefact querying the date of the Biosis report and number of artefacts found, advising that a relative was shown in a historic image but no concern expressed about reproducing the image, and stating that the area was not the Country of the Gundungurra people, only the Darug and Dharawal, and a general comment that it is hard to deal with interpretation of places when places have been destroyed.	Artefact responded via email on 2/4/2019 with explanation about the report and number of artefacts, asking permission to use the image with her relative, and informing her we would look into the traditional land areas. No further response from Glenda as at 9/4/2019. Artefact made amendments to the traditional lands information, and removed the image containing a relative. Consultation closed.
Darug Tribal Aboriginal Corporation (DTAC)	■■■■■	21/3/2019	DTAC was contacted via email and sent a copy of the draft HIS approach, with a letter requesting comments by 2/4/2019 Reminder email sent 1/4/2019.	No response	Consultation closed.
Darug Aboriginal Cultural Heritage Assessments (DACHA)	■■■■■ ■■■■■	20/3/2019	■■■■■ was contacted via mail and sent a copy of the draft HIS approach, with a letter requesting comments by 2/4/2019	No response	Consultation closed.

Agency	Contact	Action Date	Outcome/Notes	Comments /Feedback	Response
Tocomwall	██████████ ██████████	20/3/2019	Tocomwall was contacted via email and sent a copy of the draft HIS approach, with a letter requesting comments by 2/4/2019 Reminder email sent 1/4/2019	No response	Consultation closed.
Darug Land Observations (DLO)	██████████ ██████████ ██████████	20/3/2019	DLO was contacted via email and sent a copy of the draft Interpretive material, requesting comments by 3/4/2019	██████████ sent a letter on 1/4/2019 stating 'Darug Land Observations Pty Ltd has reviewed the draft heritage interpretation, and supports the heritage interpretation for the Moorebank Intermodal Terminal, at Moorebank.	Artefact sent an acknowledgment/ thanks email on 2/4/2019. Consultation closed.
Darug Aboriginal Landcare Inc (DALI).	██████████	20/3/2019	DALI was contacted via email and sent a copy of the draft interpretive material, with a letter requesting comments by 2/4/2019 Reminder email sent 1/4/2019	██████████ responded via email on 1/4/2019 'The Darug Aboriginal Landcare agree with the interpretive panels.'	Consultation closed.
Darug Custodian Aboriginal Corporation (DCAC)	██████████	20/3/2019	DCAC was contacted via email and sent a copy of the draft Interpretive material, requesting comments by 3/4/2019	██████████ emailed a response on 28/3/2018: 'I have looked at the proposed Moorebank Intermodal terminal interpretive signage and would like to make a few comments and I have a few questions. The Darug people did use fire for hunting but there was a lot more involved in this practice, fire is an integral part of our culture and was used for land management triggered by seasonal changes that we know from being one with our environment. I think the firing section needs more information. Can we also mention that the Aboriginal people from here care for our sites with Archaeologists and show an image of the community as well? Could we also include some Darug artwork in the signage?	Artefact sent an acknowledgement/ thanks email on 1/4/2019, and asked Leane to provide a possible contemporary image, including information about permissions. The text was altered to add information on firestick farming, and the HIP will recommend that Aboriginal artwork be considered for the graphic design of the panels. Consultation closed.

Agency	Contact	Action Date	Outcome/Notes	Comments /Feedback	Response
Banyadaminga		27/3/2019	Banyadaminga was contacted via email and sent a copy of the draft interpretive material, with a letter requesting comments by 5/4/2019	No response	Consultation closed.
Department of Defence	██████████, Curator, AAMME Holsworthy Barracks	17/3/2019	██████████ was emailed the draft interpretive material, with a specific query for additional images on 17/3/2019	██████████ responded via email on 4/4/2019: 'We have had a look for some images and have struggled to find any that suit what you were after. But feel free to use the image of the map that you have already. One thing to note ... some of the captions are incorrect and name SME as the site, when they are actually taken at the Electrical and Mechanical Engineers School in Moorebank.... I would suggest checking your captions against what the War Memorial have listed. Other than that the panels look okay.'	Artefact sent an acknowledgment /thanks email on 4/4/2019. Captions checked for accuracy. Consultation closed.
	██████████ A/Assist.Dir, Envmt & Sus Service Del Div, Estate & Infrast, Nth NSW Manager	10/4/2019	Emailed ██████████ requesting comments by 29/4/2019 (contact provided by Tactical/Qube) Reminder email sent by Artefact on 30/4/2019	Robert replied on 2/5/2019: 'I have no further comments on this report.'	Artefact sent an acknowledgment /thanks email on 2/5/2019 Consultation closed.
Moorebank Heritage Group (MHG)	██████████	5/3/2019	Contacted ██████████ to ask for MHGs input, sent draft interpretive material for review, with request for comments back on 22/3/2019	██████████ responded that he would provide comments, and would work with ██████████ (historian, previous MHG member)	
		25/3/2019	Artefact emailed ██████████, asking for comments	No response	
		30/3/2019	Artefact rang ██████████ and asked if comments were forthcoming	██████████ replied that she would send comments in the next week; ██████████ replied that he would discuss with the MHG group and send comments the next week	
		1/4/2019	██████████ from MHG rang Artefact to check if comments	Artefact thanked her, and agreed.	

Agency	Contact	Action Date	Outcome/Notes	Comments /Feedback	Response
			could be sent in by 4/4/2019.		
		31/3/2019 – 7/4/2019	<p>██████████ provided detailed comments and editing for all the panels and web pages, via email: This included:</p> <p><i>Panels:</i> Focusing the European history panels on and providing detailed edits of content:</p> <ul style="list-style-type: none"> -Early Moorebank -Military history – early years WWI -Military history – WWII and onwards <p><i>Web pages:</i> Focusing the more detailed 5 European pages and providing detailed edits and draft content:</p> <ul style="list-style-type: none"> -Founding Moorebank -Military History -Technical innovation (incl CUST and STRARCH) -Snapshots of the past -Archaeology 		<p>Artefact thanked ██████████, and made the changes to text and images of panels/pages.</p> <p>Consultation closed.</p>
		3/4/2019 – 5/4/2019	<p>██████████ (under request of ██████████) provided detailed comments on the text and images of the panels and pages, via email.</p>	<p>On 4/4/2019 ██████████ emailed all comments and stated '██████████ from the Moorebank Heritage Group have reviewed the interpretive draft in relation to the Moorebank Intermodal Terminal Hermitage as part of the overall consultation process. Based on our research knowledge and insight into this heritage area, we both believe that the suggestions made re text and photos will enhance the overall accuracy of this important document.'</p>	<p>Artefact thanked MHG, and made appropriate changes to the text and images of panels/pages.</p> <p>Prior to finalising interpretive material at the project design stage associated with the Freight Village, the RAPs will be contacted again to provide feedback on the final designed interpretive content.</p> <p>Consultation closed.</p>

Agency	Contact	Action Date	Outcome/Notes	Comments /Feedback	Response
Liverpool Council	██████ ██████, Heritage Manager	10/04/2019	<p>After an initial phone conversation on 28/3//2019, Artefact emailed Thomas on 10/4/2019 with a copy of the draft HIP requesting comments by 29/4/2019</p> <p>Reminder email sent by Artefact on 30/4/2019 and 2/5/2019</p>	<p>Email from ██████ on 6/5/2019 with the following comments: 'I have no major objections to the proposal however, as with other projects, I have suggested that consultants think beyond the sign. Is there not some public art piece that could be designed to sit as a gateway or statement piece, or something else that could contribute to the public domain. There are concerns with the imagery that has been identified for the indigenous panels. These images are from a colonial perspective and I have found they are not well received by many in the local community. My suggestion would be to use local artwork to tell the story. I believe you might be underplaying the importance of Clive Steele. He is the father of combat engineering and was a significant contributor to the Australian military effort in WWII.</p>	<p>Acknowledgement/response email from Artefact on 6/5/2019 outlining that</p> <ul style="list-style-type: none"> - the HIP notes that the salvaged architectural elements could be used in some gateway/entrance as a sculptural element. The off-site component (webpages) is also a key interpretive strategy, as there will be limited public access to the site - involvement of a local Aboriginal artist was also raised by one of the RAPs; it has been included as a recommendation. The RAPs approved the use of historic images. - more information about Clive Steel will be added into the final version of the webpages, where there is more space for additional context information. <p>Consultation closed.</p>

APPENDIX B: CONTENT FOR WEBPAGES

Introductory page: Moorebank's heritage

The site of the Moorebank Intermodal Terminal has been a significant part of tens of thousands of years of Australian history and is part of the stories of many thousands of people - Aboriginal people who have lived in the Moorebank area for more than 20,000 years; Thomas Moore, after whom the site is named, who was instrumental character in the development of Moorebank and Liverpool; and tens of thousands of people who were associated with the military activities at Moorebank.

Moorebank became a military site in the early 1900s, and through the World Wars it was a temporary home to many thousands of new recruits being trained for battle, as well as military industrial workers and engineers. The Moorebank area was also the site of World War I and II internment and prisoner of war camps that held thousands of German and Italian prisoners. Archaeological investigations prior to the construction of the Moorebank Intermodal Terminal shed light on the lives of these various groups of people and help us to understand their stories.

Find out more about: *(as live links to next level pages)*

- Aboriginal history
- Early Moorebank
- Military history
- Internment camps
- Technical innovations
- Snapshots of the past
- Beneath the surface: archaeological investigations

Possible intro page images;

Moorebank, near Liverpool - the residence of Thomas Moore, c1819 (SLNSW)



One of the main AIF training camps in the state, Liverpool, 1914. (AWM)



Webpage 1: Aboriginal History

Moorebank is part of the traditional country of the Darug and Dharawal groups, and is a culturally significant location. This area was part of the boundary of these groups, and nearby was an important travel corridor between the Cumberland Plain and the Illawarra region, where groups With the Georges River close by, this area would have been rich with food, water, medicinal plants and other resources. Aboriginal people practiced environmental management here through the cultivation and seasonal harvesting of plants, fishing practices, and firing the area to herd animals for hunting and encourage new plant growth.

Archaeological excavations in 2016 and 2017 for the construction of the Moorebank Intermodal Terminal uncovered more than 1500 stone artefacts, including axes, points and blades, and many flakes and cores which are the by-product of constructing stone artefacts. Most of the stone artefacts were crafted from silcrete, which was durable and easy to work without breakage. Other artefacts were made from quartz, quartzite, mudstone and chert. Dating of some of these artefacts suggests that Aboriginal people have lived in the area for at least 22,000 years.

After arriving in Sydney in 1788, Europeans quickly moved south to the Liverpool and Campbelltown regions, and land grants were given to settlers and soldiers from the end of the 1790s. Aboriginal people were increasingly displaced from their traditional land, as settlers cleared, fenced and cultivated the land for agriculture and pasture. Aboriginal people defended their right to their land, which often resulted in violent confrontations.

Settlers also claimed many natural resources, such as timber, fishing grounds, pasture and drinking water sources such as the Chain of Ponds that stretched from the Georges River at Moorebank to Clinches Pond. Some Liverpool settlers also built their homesteads on the highest elevations restricting access by the Aboriginal people to traditional lookout points and high-ground meeting places. Some amicable relationships developed, such as those with Charles Throsby, of the nearby Glenfield Estate who provided shelter for Aboriginal families on his estate, and some Aboriginal people adapted their skills to work as farm labourers and guides. Following a drought in 1814-15, resources became even more scarce, causing tensions to increase between Aboriginal people and settlers. In 1816, after increased violence, Governor Macquarie issued an order for Aboriginal men to be taken as prisoners and any resisters to be shot and hung from trees as a warning.

Introduced diseases, such as smallpox and measles, had a devastating effect on the Aboriginal population in the mid 1800s. However, corroborees were still held at nearby Campbelltown until at least the 1850s, often with 100 people attending, and in 1858 about 200 Aboriginal people attended the opening celebrations for the new railway at Campbelltown. Aboriginal connections continued into Moorebank's military phase, with many Aboriginal servicemen from across Australia being trained or serving at the barracks at Moorebank.

Despite the impacts on the landscape and the vast effects on Aboriginal culture since European arrival, the Moorebank area continues to hold great cultural significance for Aboriginal people. Local Aboriginal people are actively involved in caring for the many significant sites in the area. The story of Aboriginal people in this area is one of survival and cultural continuation, and today the Liverpool area has one of the highest populations of Aboriginal people in the Sydney region.

(Ed note: Please note that the scarred trees located on the site have not been mentioned in order to keep their location private; if they are to be relocated elsewhere, such as at Tharawal LALC, then a sentence stating this can be added. Also please note that the final location of the stone artefacts has not been added in yet until there is a decision on whether they are to be reburied in Country or placed with a museum)

Image choices:

'Aborigines using fire to hunt kangaroos', 1817, J Lycett, 1817 (NLA)



Indigenous Australians on a settler's farm (Charles Throsby's estate at nearby Glenfield), Augustus Earle, 1826 (NLA)



Liverpool, NSW (view form Moorebank) 1824, J.Lycett (NGA)



'Australian Aborigines. Cabramatta Tribe' (thought to be at Bigge Park, Liverpool) 1840s, PHF Phelps (SLNSW)



Some of the stone tools excavated at Moorebank (Biosis, 2018, Extent, 2018)



Awaiting possible contemporary/community image from RAPs

Webpage 2: Early Moorebank

Soon after the arrival of the First Fleet in 1788, European colonists began to explore and settle south of Sydney, including the Liverpool, Campbelltown and Camden areas. The area around the Georges River was first explored by Europeans in the 1795. The first land grants in the Moorebank area, located close to the Georges River, were given to settlers from 1798. Small allotments were granted to convicts to grow wheat and vegetables, and larger grants given to officers, civil servants or free settlers.

In 1809 Thomas Moore, who had come to Australia in 1796 as a ships carpenter aboard the *Britannia*, was awarded two large grants totalling 1300 acres along the eastern bank of the Georges River. Moore named this property *Moore Bank*, cultivating it for agriculture and supplying the fledgling Colony with meat and timber. The Moorebank Intermodal Terminal Precinct is built on part of the original Moorebank estate site.

When Moore arrived in Australia, he was appointed by Governor Hunter as Master Boat Builder in the dockyard at Port Jackson and Surveyor of Timber. He married Rachael Turner in 1797, a convict who had arrived in Sydney in 1790. After moving from Sydney to his Moorebank estate in 1809, Moore became the first citizen of Liverpool. In May 1810, Moore was appointed a magistrate for the Georges River and for Liverpool until 1820 when his jurisdiction extended to the County of Cumberland and in 1821 to the state of New South Wales. When Governor Macquarie proclaimed the new township of Liverpool in 1810, he commissioned Moore to oversee the building of the town, a position he held over the next decade as supervisor of works.

Moore acquired great wealth through his property, building, farming, banking and business interests, steadily adding to his land grants to become one of the Colony's largest landholders. He was also a generous benefactor supporting churches and banks at Liverpool and Sydney. By the mid 1820s, Moore was residing at his property in Liverpool, leasing out his Moorebank estate lands.

Moore had no heirs, and his wife Rachael died in 1838. Moore died in 1840 leaving his 6400 acre Moorebank estate to the Church of England. The Church leased parts of the land, which was used for orchards, vineyards and poultry farming, with advertisements targeted towards new arrivals to Australia, particularly farmers and gardeners. The Church then established Moore Theological College on at Moore's former Liverpool residence in Elizabeth Street in 1856, which in its first year it had one teacher and three students. In 1891 Moore Theological College was relocated to Newtown. In the 1890s the Church subdivided and sold much of the estate land as residential and small farming allotments.

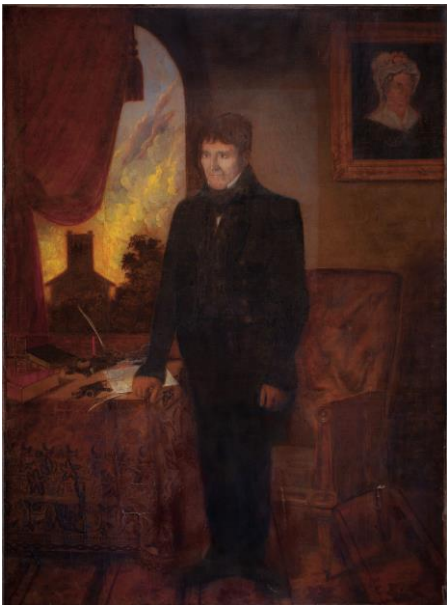
Some other large landholders along what is now Moorebank Avenue were the Pettit, Steenson, Childs, Pyer, Loudon and Smith families. William Alexander Smith, a former Liverpool Mayor, built a brick cottage in Moorebank Avenue, *Arpafeelie*, in 1895. This cottage was used by Lord Kitchener in January 1910 when reviewing the capabilities of the military at the Liverpool training area. The cottage was also used during WW I by the Army as an isolation ward and later as a nurses' home for Army nursing sisters together with the neighbouring residence, *Merricourt*, in accommodating senior Army medical staff. Smith's property was eventually acquired by the Commonwealth in 1926 and has been used as an officers' mess, quarters for Signal Corps members of the Australian Women's Army Service during World War II, Army Special Investigation Services during the Vietnam War and for over 45 years as quarters for commanding and senior officers. In honour of Lord Kitchener's visit, the residence was renamed 'Kitchener House' in the late 1950s.

Image choices

Moorebank, near Liverpool - The Residence of Thomas Moore, c1819 (SLNSW)



Portrait of Thomas Moore, 1840, W.Griffith (Moore Theological College)



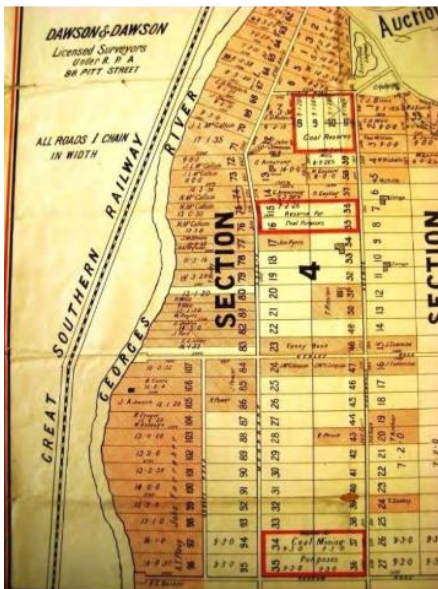
Scrapbook pages of Moore College, Liverpool, 1870s (Moore Theological College)



A real estate agent's depiction of life on the Moorebank Farms Estate, c1888 (NLA)



Moorebank Farms Estate 2nd Subdivision, c1888 (NLA)



Moore College, 1890 (Moore Theological College)



Arpafeelie during Kitchener's visit, later *Kitchener's House*, 1910 (AWM)



Nurses' Home at Liverpool Camp, 1915 (NLA)



Webpage 3: Military history

For more than 120 years, the Moorebank area served as a training ground for various branches of the army and has played a significant role in Australian military history. Over 200,000 men and women have trained and lived at the Moorebank camp prior to military service.

Colonial period

The military association with the Liverpool area extends back to 1811 with the construction of the Liverpool barracks for British troops who oversaw convict work gangs. From the 1890s annual training camps for the NSW citizens' forces were held in the Liverpool area including infantry, light horse, artillery, engineers, signals training and mock battles.

The Daily Telegraph (7/1/1910) noted that, Moorebank was suited to military training, providing '*Not only very fair opportunities for moving large bodies of troops in tactical exercises, but also has within its limits well equipped ranges for artillery and infantry shell and ball practice.*'

In 1910, British Field Marshall Kitchener, who had been invited by the Prime Minister Deakin to review the capabilities and operations of Australia's land defences, visited the Liverpool training area. Kitchener recommended the establishment of the Australian Imperial Forces (AIF) and the establishment of a site specifically for military field training purposes.

From 1912 the government purchased over 54,000 acres for the Liverpool Field Training Area along the eastern side of the Georges River, covering parts of Moorebank and Holsworthy, east to Heathcote and south to Eckersley. Some basic military facilities were built, including a remount depot for the Australian Light Horse Regiments at Holsworthy and, initially, 2000 troops were still sleeping in tents. In WW I tents were replaced by permanent structures at the main Moorebank camp including a field hospital with isolation wards (the first of its kind in Australia), barracks, railway, kitchens, stables, stores, rifle, grenade and artillery ranges, and soldiers' support services.

World War I

Throughout WW I the Moorebank camp was used by the AIF for the compulsory training of new recruits before they were sent overseas. Over 125000 recruits passed through its gates and more than 40000 horses trained for the light horse, artillery and transport units. However, the conditions at the Moorebank camp were difficult - it was prone to flooding, and the accommodation was not sufficient to cater for the growing number of recruits, up to 17,000 at any one time. Visitors to the camp on the weekends sometimes surpassed 15,000, more than double to population of Liverpool.

The diary of Lieutenant B.W. Champion (1st Battalion AIF, 1915) provides some insight into the daily life of young servicemen at Moorebank:

"We went to Liverpool camp, where we were stacked 18 men to each tent for the time being... the first few days in that wilderness of dust and humanity were misery for the average boy. No privacy at all; washing and other conveniences were appalling – so different from the later days at Liverpool, when huts were used and even warm showers were possible... From physical drill and route marchings, we graduated to dummy rifles, and at last came the day when proper uniforms were issued..."

On 14 February 1916, over 3,000 recruits objecting to the introduction of a new training syllabus marched into Liverpool before travelling to Sydney by train where they continued their protest. Later that evening during a confrontation at Central Station between the rioters and authorities, Trooper

Ernest Keefe was shot and killed. This invoked a reform to the camp management and led to the introduction of the '6 O'Clock Swill'.

World War II

Throughout World War II further development occurred, including the establishment of the School of Military Engineering (SME) home to the Corps of Royal Australian Engineers (RAE), the School of Signals, the Armoured Fighting Vehicle Trade Training Centre and the Royal Australian Electrical and Mechanical Engineers, in addition to new store buildings, workshops, depots and a rifle range. Over the course of the WW II, 7,450 students were educated at SME, and people travelled from all over Australia to attend courses. It is estimated that over 40,000 troops were trained at the Moorebank camp in WW II.

In 1943 a large ordinance store depot was established on the eastern side of Moorebank Avenue covering more than 80 hectares, and by 1944 it was already undergoing expansions with fifteen large timber post and beam warehouses built to accommodate a wide range of military stores and items, a carpentry workshop, inflatable storage facilities, administration building, offices, amenities and a quartermaster's store. A further three massive prefabricated timber and steel warehouses were shipped from the United States in the 1940s and installed on site.

Post World War II

Since WW II, Australia has been involved in further overseas deployments including the Malay Emergency (1948-60), Korean War (1950-53), Indonesian Confrontation (1963-66), Vietnam War (1962-75) and more recently Iran and Iraq, and many peacekeeping activities, and the use of the Moorebank camp has reflected this. For example, in the 1960s and 1970s a mock Vietnamese Village to familiarise troops with guerrilla warfare tactics and military raids on villages, and a nuclear, biological and chemical warfare wing were constructed. A specialist military dog training facility was established in 1953. Within the SME, commemorative tributes, such as Vietnam War memorial, gardens, memorial entrance gates, a chapel and a military dog cemetery were built.

As the SME had expanded to include new training services, it was renamed Steele Barracks in 1999 after Major General Sir Clive Steele, an army engineer who played a key role in World War II. Many of the buildings on site were renovated throughout the 1990s and early 2000s, and continued to be used for their original functions until the RAE, the Army Museum of Military Engineering and other units on the site were relocated to the Holsworthy training area in 2015. The Army Museum of Military Engineering now at Holsworthy Barracks holds an extensive collection of materials from the SME and the RAE. (<https://www.army.gov.au/our-history/army-museum-network/corps-museums>)

Image choices

View looking east from the railway line across the George's River to Liverpool military camp, 1910-11 (Campbelltown City Library)



One of the main AIF training camps in the state, Liverpool, NSW. 1914 (AWM)



AUSTRALIAN WAR MEMORIAL

H11564

Accommodation huts, 1916 (AWM)



AUSTRALIAN
WAR MEMORIAL
C01205

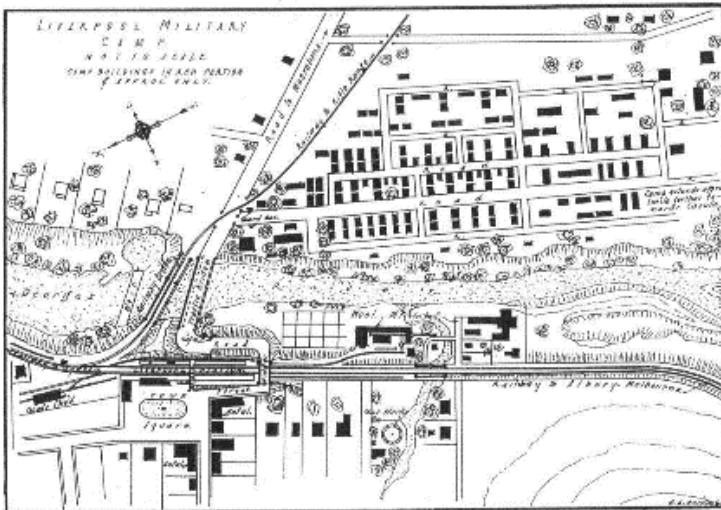
Liverpool Australian Army Field Hospital, 1914-1918 (AWM)



AUSTRALIAN WAR MEMORIAL

H18453

A partial map of the Liverpool Military Camp, Sapper Geoffrey H. Gore, c1919 (Australian Army Engineers Museum)



Group portrait of members of D Company, 18th Battalion, taken camp shortly before the troops embarked to take part in World War 1, 1915 (AWM)



AUSTRALIAN WAR MEMORIAL

H12526

Easter encampment c1913 (Wollongong Library Collection)



Some of the buildings at the Holsworthy camp, 1916-18 AWM



NSW Lancers at Moorebank, 1914 (SLSA)



Main gates, 1916 (AWM)



An overturned tank recovered at the School of Military Engineering, 1944 (AWM)



Members of the senior officer's course constructing a box girder bridge, Moorebank, 1944 (AWM)



Checking rifles and vickers machine guns, 1944 (AWM)



Checking an engine, Private A. Angelini, Corps of Australian and mechanical Engineers, 1945 (AWM)



Gun repairs, Corporal W.Radford and Private N. Long, 1944 (AWM)



SME site, 1950s (AAMME)



SME site, 1990s (AAMME)



SME gatehouse built in the 1960s of convict made bricks from Campbelltown, c1980s (School of Military Engineering RAE Farewell 2014)



Webpage 4: Internment camps

During World War I (1914-18) and World War II (1939-1945), the Liverpool Training Field was the site of internment camps, where 'aliens' from Australia's wartime enemy nations were imprisoned. Many thousands of people with Austro-Hungarian, German, Italian and Japanese heritage were taken from their homes without trial and detained in the camps.

Internment in Australia in World War I

During WW1, internment camps were set up all over Australia. The three main centres in New South Wales were Berrima in the Southern Highlands, Trial Bay on the North Coast, and Holsworthy, near Liverpool in Sydney's south west.

The 6,890 people that were interned without a trial at the Holsworthy camp included German, Austrian, Hungarian, Croatian, Czech, Bulgarian and Turkish men. Some were naturalised British citizens including native born second or third generation Australians, a few with siblings serving in the Australian military forces. Internees came from Australia, South Pacific Islands, New Guinea and Asia. They included crews of ships caught in Australian ports, government officials, Lutheran missionaries, prisoners of war, gold miners from around Kalgoorlie in Western Australia, and businessmen.

After the war ceased on 18 November 1918, despite their ties to Australia, some internees had their naturalisation certificates revoked; between May 1919 and June 1920, the Commonwealth deported 6,150 people. Some internees were allowed to stay in Australia returning to their homes.

Holsworthy Internment Camp

Known as the 'German Concentration Camp' during the World War I, the Holsworthy Internment Camp was the largest and longest running internment camp in Australia housing up to 6,000 men, both internees and prisoners of war. Some internees were transferred from camps in other states that were closed early in the war, as well as many survivors of the German light cruiser SMS Emden, which beached at Cocos (Keeling) Islands on 9th November, 1914.

Of all the camps, Holsworthy was the harshest. Physical conditions in the camp were difficult; living conditions were overcrowded with rudimentary sanitary facilities. At its height, there were more than 210 buildings, split between the internee compounds and the guards' camp area. Internees were very resourceful building their own barracks and furniture, a bakery, sausage factory, cafes, theatres, gymnasium, and an extensive vegetable garden.

The Camp Committee, comprised entirely of internees, governed internal matters such as policing, education, and social and recreational activities. The camp had its own newsletter called the *Kamp Spiegel*, and craft nights, painting lessons, concerts and sports events were held. Internees were employed as labour on local road works, the Liverpool to Holsworthy military railway, Anzac Rifle Range, quarrying, charcoal burning and timber milling activities.

The camp closed in mid-1919 with the last man leaving on 5 May 1920, and most of the buildings were demolished.

WW II internment camp

With the outbreak of World War II an internment camp was established on the former Anzac Rifle Range, near Wattle Grove. It needed to be set up in a hurry, so cottages and huts belonging to the rifle associations who used the range were commandeered. A barbed wire fence was put up around the buildings on one side of the road to house the internees; the military guards and administration staff were housed on the other side of the road. The conditions in the camp were better comparatively to that of the WW I Holsworthy camp.

The camp opened on 15 October 1939 and was officially known as *The Internment Camp, Liverpool*. It housed thousands of people whose background was German, Austrian, Italian, Finnish, Portuguese, Spanish, Norwegian, Vichy French, Greek, Danish, Czechoslovakian, Hungarian, Romanian, Russian, Japanese, Thai, Javanese, Chinese, Solomon Islanders and Indonesian.

Under international law, prisoners of war had to undertake work within the camp but this was not compulsory for civilian internees. Internees were involved with carpentry, cooking, gardening and sport, and were allowed weekly visits from friends and relatives. They also provided their own entertainment, putting on plays and having singalongs in the mess hall.

World War II ended in May of 1945, but there were again long delays in releasing internees. The camp finally closed in November 1946, with many of the internees deported and the site eventually converted back into a rifle range.

Liverpool Internment camp, c1915 (Dubotzki collection)



Inmates of the German Internment Camp at pick and shovel work (AWM)



AUSTRALIAN WAR MEMORIAL

H17640

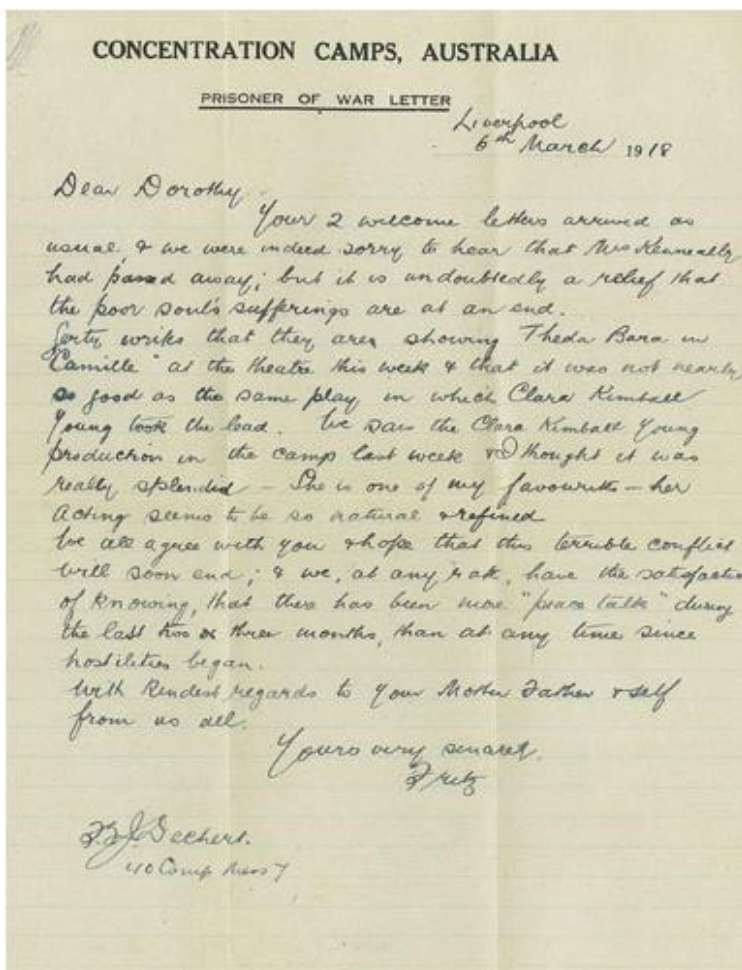
The school of painting and clay modelling at the German Internment Camp (AWM)



AUSTRALIAN WAR MEMORIAL

H17385

Letter from a camp internee, 1918 (Liverpool Regional Museum)



The Harris Creek Railway Bridge built by German internees in 1917 (AWM)
<https://www.awm.gov.au/collection/C1127728>



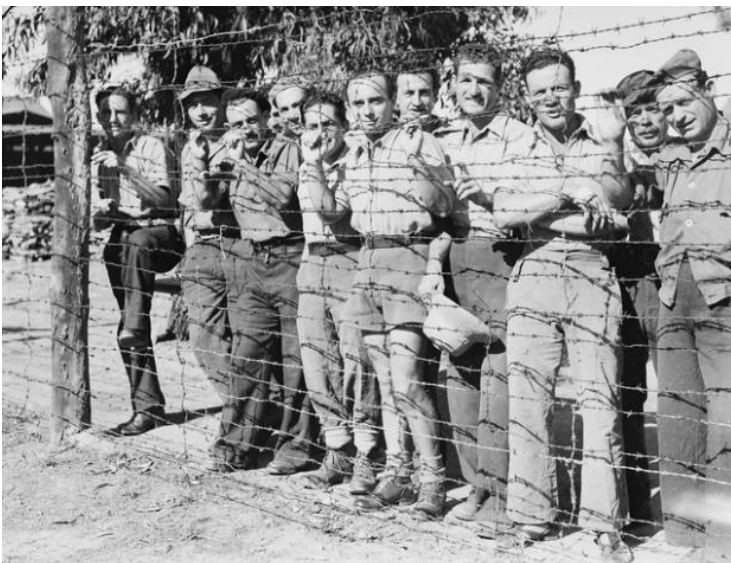
Internees of the Liverpool prisoner of war and internee camp working in the vegetable garden, 1944 (AWM)



AUSTRALIAN WAR MEMORIAL

064366

A group of Italian prisoners of war behind the fence of the main compound, Liverpool internment camp, 1945 (AWM)



AUSTRALIAN WAR MEMORIAL

123706

Webpage 5: Technical innovation

From the beginning of Moorebank's use as a military precinct, innovation in architecture, engineering and industry has been a feature. Below are some key technical innovations...

CUST Hut

The CUST Hut was a memorable architectural feature at the School of Military Engineering site for over 60 years. CUST stands for 'Cullen Universal Steel Truss' – it was a clear span vaulted warehouse invented by Lieutenant Colonel Dan Cullen, during World War II. Cullen was a Royal Australian Engineer (RAE) officer who served with the 7th Division Engineers in the Middle East where he also designed a series of bridges with rolled steel joists. On Cullen's return to Australia in 1942, he was one of the select group of Sapper officers handpicked to revamp the courses at the School of Military Engineering at Moorebank. After the war, Cullen served in the Occupation Force in Japan where, in collaboration with another engineering officer, he had planned the new city of Hiroshima.

Originally constructed in Kapooka, NT, the CUST Hut was relocated to School of Military Engineering site at Moorebank after the RAE Training Centre at Kapooka was disbanded. It was erected at Moorebank in 1948.

The CUST hut was originally open at both ends and with an earthen floor. Tenders were called for the 'construction of pavements, concrete and flexible vehicular ramp and floor' and 'enclosing ends' in 1953. A site plan dated 1956 indicates the hut was occupied by the Plant, Roads and Airfield [PRA] Troop, which was part of the School's Military Training Wing. In later years it was used as an exhibition space for larger machinery and equipment from the Australian Army Military Museum of Engineering collection. The CUST hut was only one of three CUST huts known to be in use in the defence forces in Australia.

The CUST Hut was demolished in 2017 with some of the roof trusses retained to be incorporated into the new Moorebank Intermodal Terminal precinct as a reminder of its heritage and technical significance.

CUST Hut, Moorebank 2010 (Pam Browne)



STRARCH Hangar

The STRARCH Hangar was another key feature of the School of Military Engineering site. It was a unique example of a massive deployable clear-span hangar building system. The name of the building comes from the STressed ARCH building design invented by Bruno Gatzka and Christopher Olsen in the mid 1980s. Its design consisted of a post-tensioned steel truss roof tied down to large concrete footings. This structure provided the RAAF with low-cost pre-engineered quick erection hangars to house the F111 Squadron when they first arrived in Australia. The School of Military Engineering Construction Wing erected the hangar at Moorebank for the Australian Army Military Museum of Engineering in 2008. It was demolished in 2017. Three examples of commercial uses of the design can still be found today in warehouses, aviation facilities and shopping centres throughout Australia and internationally.

STRARCH Hangar, Moorebank 2010 (Pam Browne)



Liverpool to Holsworthy Military Railway

The Liverpool to Holsworthy railway was built in 1917, using second-hand steel and rails as a cost cutting measure and because there was a shortage of materials as a result of the war. NSW Railways constructed the first 2.2km from Liverpool and east across the Georges River; the remainder, which was located on military land, was constructed by internees from the Holsworthy Internment Camp as labour. When it opened in January 1918 the line was 7.9km long. It had two sidings; the first served the Liverpool Army Camp just across the Georges River, and the second served the Remount Depot, home to Australian Light Horse Regiments where light horse, artillery and transport horses destined for the war effort were trained.

Two small flood openings were constructed over the Anzac (previously known as Sheep Pool) Creek and Harris Creek. The line was unfenced throughout with a speed limit of 25km/hr reduced to 8km/hr on sections where the line operated in close proximity to the public roads. The final cost of construction was £35,000 over three times the original estimate.

After the opening of the main line, several additional sidings were laid. The first of these was the Ordnance Stores Siding at Moorebank which opened in April 1919. A second siding which served the ammunition stores was opened in October 1920.

At the end of WW1, military traffic on the line decreased dramatically. The condition of the line between the rifle range and Holsworthy terminus deteriorated, resulting in all trains terminating at the rifle range platform from October 1923, and by 1930 all services to this section were stopped. The track east of the range was sold to the Moorebank Sand Company, and the abandoned ballast bought by Liverpool Council.

The need for the line to be restored and used for military purposes during WWII caused the line to be repaired. During the war, more facilities were built at Moorebank and the ammunition siding was extended and new ordnance sidings were commissioned in June 1945. The Cable Makers Siding located on the eastern bank of the Georges River was opened in December 1940.

In the years following the end of the war, traffic on the branch declined, and the line was closed in 1977.

Train wagons loaded with Army Service Corps freight, Liverpool, 1920s (AWM)



Wagons loaded with Army Service Corps (A.S.C.) freight, 1920s -1930s.
AWM Photo ID: P09051.005

WW II Moorebank ordnance stores

In preparation for Australia's role in WW II there was a nation-wide expansion of sites associated with defence manufacture and storage. In 1943 a large ordnance store depot was established on the eastern side of Moorebank Avenue covering more than 80 hectares, and by 1944 it was already undergoing expansions with fifteen large timber post and beam warehouses built to accommodate a wide range of military stores and items, a carpentry workshop, inflatable storage facilities, administration building, offices, amenities and a quartermaster's store. A further three massive prefabricated timber and steel warehouses were shipped from the United States in the 1940s and installed on site. It was intended that the depot would have an ongoing role in peacetime as well as wartime, and it was extensively used after WWII.

The area accommodated the 2nd Base Ordnance Depot, 5th Base Ordnance Depot and 2nd Base Workshops during World War II, which became the 21st Supply Battalion and 2nd Base Workshop Battalion in 1972. In 1990 the facility became the Defence National Storage and Distribution Centre (DNSDC) as part of a reorganisation of defence national supply services and warehousing arrangements.

During the refurbishment of the DNSDC, five of the original timber post and beam warehouses were demolished and replaced with larger modern buildings, and the remaining original warehouses were retained and reclad. The site was vacated by the Dept of Defence in 2015 and, after an archival recording of the WWII buildings was made, they were demolished to make way for the new Moorebank Intermodal Terminal.

The artillery stores at No. 3 sub depot, 5th base ordnance depot. Moorebank, 1944 (AWM).



Detail of the post and beam structure in warehouses at the DNSDC Stores, Moorebank, 2016



Warehouses at the DNSDC, Moorebank, 1990s (OEH)



Webpage 6: Snapshots

Moorebank Scrambles Track

An Army Motorcycle Training Track was constructed by the Australian Army during WW II to train despatch riders. It was located off Moorebank Avenue on the eastern bank of the Georges River. Army tanks and land clearing equipment were used to gouge out a track in the scrub along the riverbank. By 1953, Army use had decreased and the track was used for training only by the military police.

During 1953, a group from the Corps of Royal Australian Electrical and Mechanical Engineers at Moorebank formed the Army Motor Cycle Club and sought permission to hold public scramble race meetings at the former Army training track. The circuit was extended, with a start/finish line and a spectator area established. The circuit, 1.5 km in length, was first opened to the public on 4 October 1953 as a test day with the first race meeting held on 15 November 1953.

The circuit was tough with tight turns, a hump named Fishers Leap, a stretch of fine sand that sucked the bikes to a standstill unless taken at full throttle, a swamp (the outfall of the nearby sewerage treatment plant), and a drop-off called Sorbent Hill (named after a brand of toilet paper).

In 1959 new speedway regulations were introduced with strict safety standards and controls, including installation of crash barrier fencing and controlled safety areas for spectators, and the Moorebank circuit was modified and brought up to standard. That year, as the first and only scramble circuit to be licenced, it was assigned NSW Speedway Licence No. 3. The circuit closed in 1970.

Members of the Army Motor Cycle Team retrieving from the Georges River a military WLA Harley-Davidson, c1950s (Old Bike Australasia magazine)



A sidecar (outfit) sets up a bow wave during the state titles in 1955 (Old Bike Australasia magazine)



Moorebank Sand Mine

In 1932, Samuel Henry Jackson, a chartered accountant who served with distinction in both WW I and WW II, gained Commonwealth approval to remove sand by rail from the military area near the eastern bank of the Georges River at Moorebank.

Forming the Moorebank Sand Company, Jackson extended the abandoned tracks of the Holsworthy rail extension, laying a branch line off the existing Ordnance Stores siding. The 3km line was ready for service on 1 January 1933. A converted truck was used to haul rail trucks to the Ordnance Store siding where NSW Railways took over. During its operation well over 50,000 tons of sand were removed by slurry pipe and pump.

As part of the lease agreement, the company undertook to maintain the line from the Liverpool to the rifle range at its expense, as at that time military traffic was negligible. However little maintenance was done, and that section of the line was declared to be unsafe for trains. By 1938 the business was in financial difficulties, only loading about three trucks a week, and it closed in May 1940. Soon after, buildings for the School of Military Engineering were constructed on the unworked southern portion of the sand lease and the railway track was removed.

The converted truck used to haul rail trucks, Moorebank, c1930s (Australian Railway Historical Society)



Webpage 7: Beneath the surface - archaeological investigations at Moorebank

In 2016 and 2017 a series of archaeological investigations were undertaken at Moorebank to discover more information about the Aboriginal and European history of the area. Archaeologists uncovered thousands of artefacts as well as evidence of numerous army buildings, including temporary tents and latrines.

More than 1500 Aboriginal stone artefacts were discovered, including axes, points and blades, and many flakes and cores which are the by-product of constructing stone artefacts. Most of the stone artefacts were crafted from silcrete, which was durable and easy to work without breakage. Other artefacts were made from quartz, quartzite, mudstone and chert. An archaeological dating method called Optically-Stimulated Luminescence (OSL) - which is used to date minerals by measuring their exposure to light – found that some artefacts were more than 22,000 years old. These finds provide evidence that the site was used and visited Aboriginal people over many thousands of years.

Some of the stone tools excavated at Moorebank (Biosis, 2018, Extent, 2018)



Archaeologist at work at the Moorebank site (Biosis)



A third archaeological investigation focused on the military history of Moorebank and uncovered evidence of numerous buildings and temporary structures, as well as thousands of artefacts. Post holes provided archaeologists with information about the location, sizes and formations of temporary structures such as tents and latrines, including uncommon 'dog legged' tents which had off-centre support beams with a bend. Many building materials, such as nails and timber, and the remains of previous brick walls were also excavated.

Beneath the surface at Moorebank (Biosis 2018)



Post holes excavated at Moorebank (Biosis, 2018)



Domestic and personal artefacts were also discovered at Moorebank and provide information about how the inhabitants of the army camps and their families lived. Hundreds of pieces of glassware, including wine, champagne and beer bottles, were found most dating to the early 1900s. Equipment for the military hospital was also found including glass syringes, medicine bottles and chamber pots. Ceramic finds included domestic items such as plates, tea ware and other types of crockery, however some finds were quite unusual, such as a porcelain doll, glass marbles and children's tea-sets, providing information about the lives of children and families on the site. Many of these items are on display at the Freight Village of the Moorebank Intermodal Terminal.

Glass bottles, medicine containers and syringes excavated at Moorebank (Biosis, 2018)



Children's toys - doll, toy tea cup and marbles excavated at Moorebank (Biosis, 2018)



Tin mugs excavated at Moorebank (Biosis, 2018)



Organic materials excavated at Moorebank, such as bone fragments, provide information about the diet of people living at the military camps. Over 800 pieces of bone were found, often showing butchery marks or burning. Bones from cows, chickens and sheep were plentiful, but skeletal remains of cats and dogs were also present, possibly pets or strays scavenging in the kitchen quarters or rubbish pits.

Archaeologists uncovered evidence about the lives of military dogs from the dog cemetery at Moorebank. Several individual graves of dogs were excavated, and many contained grave goods and memorial plaques made by the dog handlers. Most of the graves were hand dug, and many dogs were also buried with tennis balls, military issued blankets and flags, showing the emotional connection between defence force dog handlers and their dogs. The most distinctive grave belonged to a dog named Jasmine, who was adopted by a military family after retirement and was buried wrapped in a crochet blanket with a red lead, frisbee and a tennis ball.

APPENDIX C: ARTEFACT LISTING FOR DISPLAY

Excerpt from artefact listing provided by Biosis, showing the 34 artefacts for possible display.

Moorebank Intermodal Precinct - Heritage Interpretation Plan

Block Database No	Matter	Area	Context	Catalogue No	Box #	Material	Sub-Material	Function	Sub-Function	Form	Portion	% Complete	Decorations	Colour	Pattern	Mark	Manufacturer	Manufacturing Technique	Origin	Date From	Date To	Date Specific	Reference	# Items	# Frag	Condition	Length (mm)	Height (mm)	Width (mm)	Diameter (mm)	MIM (mm)	Description	
2429	22908	2	840	0	0	Glass	Flat Glass	Diet	Drinking	Bottle	Complete	90-100%	Embossed	Aqua		Fish (Blob top)	Marchants Ltd Registered Trademark	Marchants Ltd	Post bottom mould	Sydney and Parramatta	1909	1930		Rowe 1991	1		Complete	210		70	1		Internal screw closure, most a Rely Patent closure based on the cork/wooden partial closure remaining in situ.
2430	22908	2	840	0	0	Glass	Flat Glass	Diet	Drinking	Bottle	Complete	90-100%	Embossed	Aqua		Fish (Blob top)	Marchants Ltd Registered Trademark	Marchants Ltd	Post bottom mould	Sydney and Parramatta	1909	1930		Rowe 1991	1		Complete	210		70	1		Internal screw closure, most a Rely Patent closure based on the cork/wooden partial closure remaining in situ.
2440	22908	2	840	0	0	Glass		Diet	Drinking	Bottle (Wine)	Complete	90-100%		Green		Fish (Chungking 1909)	F & S Ltd 1915	Tooled fresh (1880s - 1920s)		1880s	1920		https://vha.org/bottle/tea-etched-wood-crown-100617	1		Complete	295		80	1			
2478	22908	2	840	0	0	Glass		Diet	Drinking	Bottle (Wine)	Complete	90-100%	Embossed	Olive Green		Fish (Crown top)	Tooth's Beer Supply House	Post bottom mould	Sydney	1835	1930		Rowe 1991	1		Complete	290		80	1			
2542	22908	C2 & D2	343	0	0	Glass		Hygiene and cleaning	Pharmaceutical	Syringe	Body	25-50%		Colourless							1853	Mid 1900s		https://www.moorebank.co.uk.au/collections/2016	1		Fragment	47		16	1		
2545	22908	2	840	0	0	Glass		Hygiene and cleaning	Pharmaceutical	Syringe				Colourless							1853	Mid 1900s		https://www.moorebank.co.uk.au/collections/2016	1		Complete	157		28	1		Plunger piece from a large medical syringe?
2549	22908	C2 & D2	343	0	0	Glass		Hygiene and cleaning	Pharmaceutical	Bottle (Medicine)	Complete	90-100%	Embossed	Amber		Fish (Prescription top)	Edwin Stewart 18 Hunter St	Whitall and Tatum Co	Post bottom mould	USA	1870	1901		https://vha.org/bottle/pdf/Rowe%20Catalog%20File.pdf-06/07/17	1		Complete	137		65	1		
2553	22908	C2 & D2	343	0	0	Glass		Hygiene and cleaning	Pharmaceutical	Syringe		25-50%		Colourless							1853	Mid 1900s		https://www.moorebank.co.uk.au/collections/2016	2		Fragment	100		35	2		
2554	22908	C2 & D2	343	0	0	Glass		Diet	Food	Jar	Complete	90-100%	Embossed	Colourless		Fish (External screw)	Rowell London - embossed on glass	Pascall		London	1866	1921		http://www.theringford.co.uk/James_Pascall_1910http://theringford.co.uk	1		Complete	105		60	1		Metal lid still intact - very corroded
2555	22908	C2 & D2	343	0	0	Glass		Unidentified		Jar	Complete	90-100%		Colourless		Fish (External screw)					1855	Present		Rowe 1991	1		Complete	33		60	1		Metal lid still intact - very corroded
2563	22908	05	867	0	0	Glass		Diet	Food	Jar	Complete	90-100%	Embossed	Cobalt blue		Fish (Internal screw)		AGM	Post bottom mould	Melbourne	1934	1948		Arch Field Handbook 2004	1		Complete	49		60	1		Partial metal lid still intact
2570	22908	H5	877	0	0	Glass		Diet		Bottle	Complete	90-100%		Colourless		Fish (Single collar)	This bottle is the property of J. L. Moore & Co	AGM	Post bottom mould	Melbourne	1922	1929		Arch Field Handbook 2004	1		Complete	150		68	1		
2571	22908	H5	877	0	0	Glass		Hygiene and cleaning	Pharmaceutical	Bottle (Medicine)	Complete	90-100%		Colourless		Fish (External screw)	AGM	AGM	Ricketts type mould	Melbourne	1944	1948		Arch Field Handbook 2004	1		Complete	85		35	1		
2572	22908	H5	877	0	0	Glass		Hygiene and cleaning	Pharmaceutical	Bottle (Medicine)	Complete	90-100%	Embossed	Colourless		Fish (Prescription top)	California Fig Brand Co Worthing		Cup bottom mould		1878	1970		Casey and Lowe	1		Complete	140		60	1		
2591	22908	Trench 1	147	0	0	Glass		Diet	Drinking	Finish				Aqua										3		Fragment						Discarded	
2603	22908	Trench 1	161	0	0	Glass		Hygiene and cleaning	Pharmaceutical	Syringe				Colourless							1853	Mid 1900s			2		Fragment						
2606	22908	2	840	0	0	Glass		Hygiene and cleaning	Pharmaceutical	Bottle (Medicine)	Complete	90-100%	Embossed	Aqua		Fish (Prescription top)	H. L. Casson Chemist (English)	Ricketts style mould		1820	1920		Arch Field Handbook 2004	1		Complete	165		63	1			
2621	22908	C2 & D2	345	0	0	Glass		Hygiene and cleaning	Pharmaceutical	Bottle (Medicine)	Complete	90-100%	Embossed	Cobalt blue		Fish (Prescription top)	Not to be taken							1		Complete	144		45	1			
2679	22908	05	869	0	0	Glass		Recreation	Toys and games	Cup	Base Body	50-75%		Embossed	Yellow									1		Fragment	17		28	1		Childs dollhouse tea cup?	
2685	22908	C2 & D2	344	0	0	Glass		Hygiene and cleaning	Pharmaceutical	Jar	Complete	90-100%	Embossed	Colourless		Fish (External screw)	Headline Cheshamough New York		Cup bottom mould		c1909	c1918		A tour through time - Roseline Jar, B. Lockhart	1		Complete	60		45	1		Metal external screw cap inside
2687	22908	H4	792	0	0	Ceramic	Blisque	Recreation	Toys and games	Doll	Various	25-50%									1900	1940		The ultimate doll book 1993	5		Corrosion			1		Head, 2 x arms 2 x legs	
2688	22908	05	867	0	0	Glass		Recreation	Toys and games	Marble	Complete	90-100%								USA	1901	1926		Casey and Lowe artefact workshop 2016	2		Complete			2			
2689	22908	H4	792	0	0	Glass		Recreation	Toys and games	Marble	Complete	90-100%								USA	1901	1926		Casey and Lowe artefact workshop 2016	2		Complete			20	2		
2720	22908	H6	892	0	0	Metal	Tin	Hygiene and cleaning	Grooming and personal hygiene	Chamberpot	Complete	90-100%	Embossed											2		Complete				1		Embossed hospital bedside male urinal with bowl	
2752	22908	H5	877	0	0	Metal		Hygiene and cleaning	Pharmaceutical	Container	Complete	90-100%					Tolson Cold Cream	Tolson MFC Co		Seinley, Melbourne, Adelaide				1		Complete			58	1			
2754	22908	H5	877	0	0	Metal		Unidentified		Unidentified	Unidentified	90-100%					Michel							1		Complete	45		60	1			
2778	22908	C2 & D2	343	0	0	Metal		Diet	Food	Spoon	Complete	90-100%						Indistinguishable makers marks and stamps						3		Complete	210		60	3			Old English fidèle style spoons, possibly serving spoons as they seem quite large.
2780	22908	C2 & D2	343	0	0	Synthetic	Vulcanite	Recreation	Smoking	Pipe (smoking)	Mouthpiece	90-100%												1		Complete	50		13	1			
2798	22908	C2 & D2	344	0	0	Metal	Tin	Diet	Drinking	Cup	Complete	90-100%												1		Complete	72		68	1			
2799	22908	C2 & D2	344	0	0	Metal		Diet	Drinking	Cup	Complete	90-100%												1		Complete	80		80	1			
2843	22908	H4	792	0	0	Metal		Hardware	Fastenings	Nut/Bolt	Complete													1		Complete	100		70	1			
2856	22908	2	838	0	0	Synthetic	Plastic	Hygiene and cleaning	Grooming and personal hygiene	Toothbrush	Complete	90-100%		Amber			Made in England							1		Complete	140		7	1			
3030	22908	H4	792	0	0	Metal	Non-ferrous metal	Unidentified		Medal							The Commonwealth of Australia 1951						1937		1		Complete			80	1		Commemorative medal of King George and Queen Elizabeth
3034	22908		0	0	0	Metal	Copper Alloy	Economy	Currency	Coin													1912		1		Complete			80	1		

APPENDIX D: OBJECT MANAGEMENT PLAN

Summary object management plan provided by Preservation Australia



Care of Objects for Display

General Conservation Needs

All objects will require an assessment for conservation requirements prior to being considered for display. In general, if there is no substantial damage or unusual conditions, the following treatments would apply:

- Ceramics - an initial brush surface clean, followed by a swab enzyme clean.
- Glass - an initial brush surface clean followed by a swab enzyme clean.
- Metal - a light surface dust, followed by a determination of any active corrosion. If the corrosion is active, it will need to be stabilised. This will require specialised treatment from a metals conservator. If a 'clean look' is required, and the corrosion is inactive, the surface corrosion could possibly be removed. This may involve ultrasonic treatment and is not really recommended.
- Organic material - a brush surface clean, followed by an enzyme clean, or wet clean.

General display requirements

There are standard museum display requirements for both organic and inorganic objects. While inorganic objects are generally more robust than organic, they still require a stable environment for any period of display.

Display cases

The main concern with display cases is the construction material used. Glass and metal are the preferred choice due to the stability of the materials but often available resources preclude this choice. If display

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cases need to incorporate wood and composite boards, such as MDF, the problem of volatile organic compounds (VOC's) needs to be addressed. Most hardwoods, chipboard, Masonite, MDF, and plywood will off-gas VOC's for a long time, and these compounds will have a strong, deleterious effect on organic objects. If these materials are used, they need to be fully sealed, including all cut edges, to contain the VOC's. Kauri or hoop pine is an acceptable alternative, and marine ply is considered more stable than regular ply. Sealing options include Marvel Seal, and painting with a 2 part epoxy, moisture cure urethane. Several coats are required and there needs to be an appropriate period for curing prior to closing the display case.

Support

All objects, whether organic or inorganic, need to be properly supported while on display. This support is essential to ensure that any areas of weakness are not exacerbated during the display period, and that there is no likelihood of the object moving while on display.

Lighting

The acceptable range of visible light for museum displays varies for organic and inorganic objects. Two principles should be kept in mind when considering the lighting of a museum display – a) all visible light is damaging, cumulative and irreversible, and b) ultraviolet radiation is not part of visible light and should be removed from the light source as it is not required to properly view the display. The damaging effect of light on organic objects is well documented and is the main reason for the museum lighting guidelines. These guidelines place museum object materials in three categories – very sensitive, moderately sensitive, and insensitive. The table below outlines objects as they fall into these categories.

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Light levels		
Sensitive materials Up to 50Lux	Moderately sensitive Up to 250 Lux	Insensitive Over 250 lux
Paper	Oil paintings	Unpainted ceramics
Textiles	Wood	Glass
Watercolours	Parchment	Metal objects
Dyed leather	Raw hide	Stone
Feathers	Fur	
Photographs	Bone/ivory	
Some plastics	Horn	
Rubber	Painted ceramics	
Prints	Painted glass	
Pastels	Painted metal	
Drawings	Painted stone	

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When applying these light levels to a display, it is assumed the UV component of the light source (daylight or electric) has been removed.

Environment (Temperature and Relative Humidity)

The stability of the environment surrounding objects on display is of paramount importance and this is relevant to the environment both inside and outside the display case. There are museum guidelines regarding the temperature and relative humidity of the environment, but the stability of both is the main thing to consider. This is because fluctuations of relative humidity (RH) can have a damaging effect on both organic and inorganic materials, but more so on constrained organic materials. It is preferable to have a stable environment that is slightly outside the recommended parameters, than to have an environment that fluctuates 10% or more within a 24-hour time frame.

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The external ambient environment will have a direct impact on the internal environment of the display case, and this can be used to facilitate a stable internal environment if necessary as there is generally several air exchanges during a 24-hour period.

While the museum parameters stipulate a temperature of 20° +/- 2°C and an RH of 50% +/- 5% as the preferred environment, it is quite acceptable to have a stable environment that sits a little outside these parameters as long as no problems (such as mould growth) are observed.

Organic objects – there are very few organic objects in this display list so it might be possible to have different (ie higher) light levels in some areas that will only display inorganic objects. Light levels need to be kept low and the UV radiation eliminated, and the temperature and RH kept stable.

Inorganic objects – inorganic objects offer a little more leeway when it comes to display conditions, as has been discussed earlier. However, there are still some areas of concern mainly with regard to relative humidity. Fluctuating or high RH can cause salts to rise to the surface of stone objects, delaminating layers as it dries.

Metal objects - when metal objects appear corroded, it is useful to determine whether the corrosion is active or inactive – and for this, the services of a metal conservator will be required. If the RH is too high (above 65-70%) it is possible that corrosion will either occur or continue. Metal objects prefer a drier environment and are generally quite happy at 45% RH (but, of course, this is too low for organic objects).

Glass objects – glass objects can be a little problematic if they are unstable due to their method of manufacture. Archaeological glass will probably be more stable than decorative glass objects which may have problems due to their method of manufacture which may result in a high alkali content. These problems – often referred to as crizzling or weeping glass - develop relentlessly over time and are very difficult to

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control. If there was any concern about the stability of glass objects the opinion of an objects conservator should be sought.

Ceramic objects – this is probably one of the more stable types of materials in this display. However, it can still be susceptible to further crazing or cracking if the RH allows it to become too dry.

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