

LAND 121 STAGE 2 - UNIT SUSTAINMENT FACILITIES

Lavarack Barracks, Queensland (QLD)
Gallipoli Barracks, QLD
RAAF Base Williamtown, New South Wales (NSW)
Holsworthy Barracks, NSW
Puckapunyal Military Area, Victoria
Campbell Barracks, Western Australia
RAAF Base Edinburgh, South Australia
Robertson Barracks, Northern Territory

STATEMENT OF EVIDENCE TO THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

Canberra, Australian Capital Territory
September 2015

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LAND 121 Stage 2 - Unit Sustainment Facilities Project

Identification of the Need

Enhanced Australian Defence Force Capability

- 1. Australian Defence Force (ADF) personnel are highly trained and equipped to conduct a variety of military operations in support of Government objectives. This may include the requirement to prevent, deter or respond to a threat in a variety of environments, both within Australia and overseas. To achieve this, ADF personnel require vehicles that provide enhanced battlefield mobility and logistics support.
- 2. LAND 121 is a multi-phased project providing the ADF with current-generation, high-capability field vehicles, modules and trailers. Approximately 7500 protected and unprotected vehicles providing battlefield mobility, logistics support and tactical training will be procured. The key phases of the project to achieve this are:
 - a. **Phase 3A** Lightweight and Light Capability providing a fleet of lightweight and light vehicles and trailers.
 - b. **Phase 3B** Medium and Heavy Capability will acquire medium and heavy vehicles, together with associated modules.
 - c. **Phase 4** Will provide Protected Mobility Vehicles Light (PMV-L) with companion trailers for command, liaison, utility and reconnaissance roles.
- 3. It is planned for Phase 5B to complete the replacement of medium and heavy vehicles. This Phase has not yet received Government 2nd Pass approval and is not addressed by this Statement of Evidence.
- 4. The vehicles provided under LAND 121 will also deliver a networked and integrated capability as part of modernisation of the ADF. They represent a significant increase in capability, replacing multiple vehicle fleets that have been in service since the early 1980s. The functionality and level of protection against current threat offered by the existing fleet is well past its useful life. The current aging fleet also incurs a maintenance liability with the continued decrease in spare parts availability.

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5. To support the introduction into service and subsequent operation of the new vehicle fleet, suitable infrastructure and support facilities are required for a number of ADF units around Australia.

Background

- 6. Government Approval for the various Phases of LAND 121 was achieved as follows:
 - a. Phase 3A August 2007;
 - b. Phase 3B July 2013; and
 - c. Phase 4 August 2015.
- 7. Government Approval for Phase 3B also approved the facilities requirement to be managed as a program of works across all acquisition phases. This Statement of Evidence to the Parliamentary Standing Committee on Public Works presents a proposal to provide facilities to a number of ADF units in support of the LAND 121 Stage 2 Unit Sustainment Facilities Project.

Facilities Required to Support LAND 121

- 8. The aim of the LAND 121 Facilities project is to deliver new or upgraded facilities to the highest priority Defence units that will improve the maintenance, support and ongoing operation of the new vehicle capability. In general terms, the vehicles provided under LAND 121 will be larger and heavier than the vehicles they are replacing, and in many instances the existing unit facilities will not be able to maintain, support or sustain the new vehicles.
- 9. The scope of vehicle facilities considered for provision to units under this project covers:
 - a. **Maintenance Facilities** New or refurbished vehicle maintenance workshops and associated spare parts storage facilities that would contribute to improve vehicle availability and be capable of maintaining the new larger vehicles;
 - b. **Support Facilities** Upgraded or new facilities to support efficient vehicle operations and legislative compliance for road operations, including weighbridges, vehicle wash points, Petroleum, Oil and Lubricants (POL) and Adblue (a fuel additive required to meet the Euro5 emission standards) delivery points, loading and inspection ramps and internal base road upgrades; and

- c. **Sustainment Facilities** Facilities designed to reduce wear and tear and increase the effective life of the vehicles i.e. shelters and hardstands.
- 10. Based on the application of these criteria, and subsequent engagement with stakeholders, the following proposed locations require facility works to support the minimum capability outcomes for LAND 121:

a. Lavarack Barracks, QLD:

- (1) Both the 3rd Combat Service Support Battalion (3CSSB) and 10th Force Support Battalion (10FSB) have a significant facilities shortfall to maintain and accommodate LAND 121 vehicles. Both units provide a key role in maintaining vehicles for other ADF units and ensuring Defence can meet preparedness requirements.
- (2) Lavarack Barracks also lacks key facilities to meet statutory requirements for weighing of vehicles and for the provision of Adblue to LAND 121 vehicle fuel systems.

b. Gallipoli Barracks, QLD:

- (1) The 7th Combat Service Support Battalion (7CSSB) has a significant facilities shortfall to maintain and accommodate LAND 121 vehicles. The unit provides a key role in maintaining vehicles for other ADF units within Gallipoli Barracks and ensuring Defence can meet preparedness requirements.
- (2) Gallipoli Barracks also lacks key facilities to meet statutory requirements for the provision of Adblue to LAND 121 vehicle fuel systems.

c. RAAF Williamtown, NSW:

- (1) 26 Squadron (Sqn) Mechanical Equipment Operations and Maintenance Section (MEOMS) facilities are not large enough to maintain an increased vehicle fleet being provided under LAND 121.
- (2) RAAF Williamtown also lacks key facilities to meet statutory requirements for weighing of vehicles.

d. Holsworthy Barracks, NSW:

(1) Holsworthy Barracks lacks key facilities to meet statutory requirements for weighing of LAND 121 vehicles.

e. Puckapunyal Military Area, VIC:

- (1) The Puckapunyal Military Area also lacks key facilities to meet statutory requirements for weighing of LAND 121 vehicles and for the provision of Adblue to vehicle fuel systems. In addition, inspection ramps are inadequate for the LAND 121 vehicles as are facilities to store POL and hazardous materials.
- (2) The Army School of Transport currently lacks facilities to train soldiers on LAND 121 vehicles out of high UV in Summer and inclement weather in Winter.

f. RAAF Base Edinburgh, SA:

- (1) 24 Sqn MEOMS facilities are not large enough to maintain an increased vehicle fleet being provided under LAND 121.
- (2) RAAF Base Edinburgh lacks key facilities to meet statutory requirements for weighing of LAND 121 vehicles and for the provision of Adblue to LAND 121 vehicle fuel systems.

g. Campbell Barracks, WA:

(1) The Campbell Barracks vehicle wash point, fuel point and weighbridge and loading ramps are unsuitable for the vehicles being provided under LAND 121.

h. Robertson Barracks, NT:

(1) Robertson Barracks lacks key facilities to meet statutory requirements for weighing of LAND 121 vehicles and for the provision of Adblue to LAND 121 vehicle fuel systems.

i. RAAF Darwin, NT:

(1) 114 Mobile Control and Reporting Unit (114 MCRU) lacks hardstand to park vehicles being provided under LAND 121.

Description of the Proposal

- 11. The works proposed to be delivered by LAND 121 provide new and upgraded facilities to support the introduction, operation and deployment of the ADF's new vehicle fleet. The facilities generally include new and refurbished maintenance facilities, storage and parking areas, and facilities to meet various legislative requirements for operation of vehicles.
- 12. A Locality Plan showing the locations where the works are proposed is at Attachment 1, with individual Regional Plans at Attachment 2. The proposed works are categorised into eight project elements as follows:
 - a. Project Element 1 Lavarack Barracks. Works required at Lavarack Barracks comprises a new combined maintenance and storage facility including working accommodation that will support front line and support units in Townsville and replace two outdated and separated facilities. Some roads and parking areas will be upgraded to accommodate the new LAND 121 vehicles. Facilities will also be provided to meet legislative requirements.
 - b. Project Element 2 Gallipoli Barracks. Works required at Gallipoli Barracks comprises a new centralised maintenance facility including working accommodation that will support front line and support units in South East Queensland and replace a dysfunctional facility. Facilities will also be provided to meet legislative requirements.
 - c. **Project Element 3 RAAF Base Williamtown.** Works required at RAAF Base Williamtown comprises a new maintenance facility that will support front line and support units at RAAF Base Williamtown, as well facilities to support legislative requirements.
 - d. **Project Element 4 Holsworthy Barracks.** Works at Holsworthy Barracks comprises a weighbridge to support Sydney based units in meeting legislative compliance.
 - e. **Project Element 5 Puckapunyal Military Area.** Works at Puckapunyal Military Area comprises facilities to meet legislative requirements.

- f. **Project Element 6 RAAF Base Edinburgh.** Works at RAAF Base Edinburgh comprises a new maintenance facility that will support front line and support units at RAAF Base Edinburgh, as well facilities to support legislative requirements.
- g. **Project Element 7 Campbell Barracks.** Works at Campbell Barracks comprises a fuelling point, weighbridge, washpoint and loading ramp to support LAND 121 vehicles.
- h. **Project Element 8 Robertson Barracks.** Works at Robertson Barracks comprises a weighbridge to assist Darwin based units in meeting legislative compliance.
- 13. The following 'below the line' scope items have also been approved by Government for delivery should funds become available through competitive tendering and the reallocation of contingency as risks are retired:
 - a. **Puckapunyal Military Area**. Works at Puckapunyal Military comprises new shelters, hard standing, wash bays and inspection ramps to improve the training environment for soldiers on the LAND 121 vehicles.
 - b. **RAAF Darwin**. Works at RAAF Darwin comprises hardstand for 114 MCRU.

Options Considered to Fulfil the Identified Need

- 14. Defence conducted a comprehensive master planning activity that considered the facilities requirement for each unit and location identified as receiving new vehicles under Phases 3A/B and 4 of the LAND 121 Project. The definition process justified the role, risks and relative priority of each unit and location in order to conduct the most comprehensive analysis of which facilities were required at which locations.
- 15. The options generated through the master plan activity were tested for value and degree to which each mitigated capability, compliance and safety related risks. Through value management the potential facilities options were refined to a group of 70 priority requirements which were developed to a concept stage. The concept development tested delivery approaches including shared facilities, non facility solutions, adaptive reuse of existing facilities and where necessary, the construction of new facilities at the proposed sites.
- 16. Once a more detailed concept design was clear, Defence further tested the refined options against capability, compliance and commercial parameters to ascertain the

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minimum facilities requirement that was essential to be completed for these phases of the project. The minimum facilities requirement was reduced to eight locations at a cost which did not exceed the allocated budget, while still delivering the minimum capability outcomes.

17. For project elements where adaptive reuse of existing facilities was not considered viable, various siting options were considered in accordance with Defence's established Site Selection Process. This process is designed to give consideration to a range of potential issues for the siting of facilities, with the key driver being the sustainability of the Defence Estate.

Environment and Heritage Assessment

Environmental Impact of the Proposed Works

- 18. An Initial Environmental Review for the proposed works associated with this project was prepared in 2014, against the *Environment Protection and Biodiversity Conservation Act 1999* (Cth). The conclusion of the Initial Environmental Review was that a referral under the act was not required for the Project. It was also determined that environment risks associated with the Project are minor and manageable through the development of site specific Construction Environmental Management Plans.
- 19. Construction Environmental Management Plans will be required to comply with the project's Environmental Assessment Report, prepared by the Defence Directorate of Environment Protection and Assessment. These plans also address issues such as traffic management, noise and dust generation, and erosion and sediment control during construction.

Indigenous and Non Indigenous Heritage Considerations

20. There are no significant heritage impacts arising from this project.

Key Legislation

- 21. The following key legislation is relevant to this project:
 - a. Environment Protection and Biodiversity Conservation Act 1999 (Cth);
 - b. Work Health and Safety Act (WH&S) 2011 (Cth);
 - c. Disability Discrimination Act 1992 (Cth);
 - d. Fair Work Act 2009 (Cth); and
 - e. Fair Work (Building Industry) Act 2012 (Cth).

Applicable Codes and Standards

- 22. The design of the proposed works will comply with all relevant and current Defence standards, Australian standards, codes and guidelines including, but not limited to:
 - a. National Construction Code Building Code of Australia;
 - b. Building Code 2013;
 - c. Defence Manual of Fire Protection Engineering; and
 - d. Defence Estate Quality Management System.

Consultation with Key Stakeholders

- 23. Defence recognises the importance of providing local residents, statutory authorities and other interested stakeholders an opportunity to provide input into, or raise concerns relating to major projects such as the LAND 121 Unit Sustainment Facilities Project.
- 24. Within Defence, consultation has occurred with the following stakeholders:
 - a. Army Headquarters;
 - b. Headquarters Air Command;
 - c. Headquarters Forces Command;
 - d. Special Operations Command;
 - e. Capability Development Group;
 - f. Capability Acquisition and Sustainment Group;
 - g. Defence Support Operations;

- h. Defence Security Authority, and
- i. Chief Information Officer Group.
- 25. Defence has developed a community consultation and communications strategy that recognises the importance of providing local residents, statutory authorities and other interested stakeholders an opportunity to provide input into, or raise concerns relating to the project.
- 26. Defence has also conducted consultation with State Government Authorities to align heavy vehicle mass compliance requirements.
- 27. Community consultations will occur as follows for the areas where works are proposed:

a. Lavarack Barracks and RAAF Base Townsville, QLD

- (1) Mr Ewen Jones MP, Federal Member for Herbert;
- (2) Mr Scott Stewart MP, State Member for Townsville;
- (3) Townsville City Council and community members; and
- (4) QLD utilities providers.

b. Gallipoli Barracks, QLD

- (1) Ms Jane Prentice MP, Federal Member for Ryan;
- (2) Ms Kate Jones, State Member for Ashgrove;
- (3) Council and community members; and
- (4) QLD utilities providers.

c. RAAF Base Williamtown, NSW

- (1) Ms Sharon Claydon MP, Federal Member for Newcastle;
- (2) Mr Timothy Crakanthorp, State Member for Newcastle;
- (3) City of Newcastle and community members; and
- (4) NSW utilities providers.

d. Holsworthy Barracks, NSW

- (1) Mr Craig Kelly, Federal Member for Hughes;
- (2) Ms Melanie Gibbons MP, State Member for Holsworthy;
- (3) City of Liverpool and community members; and
- (4) NSW utilities providers.

e. Puckapunyal Military Area, VIC

- (1) Hon Sharman Stone MP, Member for Murray;
- (2) Ms Stephanie Ryan MP, State Member for Euroa;
- (3) City of Mitchell; and
- (4) VIC utilities providers.

f. RAAF Base Edinburgh, SA

- (1) Mr Nick Champion MP, Federal Member for Wakefield;
- (2) Ms Leesa Vlahos MLA, State Member for Taylor;
- (3) City of Salisbury; and
- (4) SA utilities providers.

g. Campbell Barracks, WA

- (1) Hon Julie Bishop MP, Federal Member for Curtin;
- (2) Hon Mr Colin Barnett MLA, State Member for Cottesloe;
- (3) City of Nedlands and community members; and
- (4) WA utilities providers.

h. Robertson Barracks, NT

- (1) Hon Mr Warren Snowdon MP, Federal Member for Lingiari;
- (2) Mr Gerry Wood MLA, State Member for Nelson;
- (3) Litchfield Council; and
- (4) NT utilities providers.

Purpose of the Works

Project Objectives

- 28. The purpose of the project is to provide the infrastructure necessary for the maintenance, operational support and sustainment of vehicles being introduced into service by the LAND 121 vehicle acquisition project.
- 29. In meeting the purpose of the project, the operational effectiveness of the ADF will be increased through enhanced battlefield and logistics mobility.

Details and Reasons for Site Selection

30. The works proposed to be delivered by the LAND 121 Facilities project include new and adaptively reused facilities across eight sites and are detailed below. Construction of new vehicle shelter facilities has only been considered where existing facilities do not exist, or cannot be practically modified to suit the new vehicle types. The following sections summarise the details and reasons for each of the selected sites.

Lavarack Barracks

- 31. Siting options for new maintenance facilities for 3 CSSB and 10 FSB focused on the provision of stand alone facilities or one shared facility. A shared facility is proposed as it minimises disruption to both units, reduces the overall footprint and maximises the efficiencies through the functional relationships that exist with the units.
- 32. In order to accommodate the proposed new facility and the increased vehicle allocation, the existing 3 CSSB Q-Store would also require demolition and replacement. The current facility is aged and not able meet the increased requirements as a result of the new vehicles being provided under LAND 121. There is also provision for vehicle shelters for protected vehicles and bulk fuel tankers.
- 33. Siting options for other proposed facilities for Lavarack Barracks included:
 - a. Various options were looked at within Lavarack Barracks to site the weighbridge. The proposed site, on Gallipoli Drive, was selected due to available space and the location is on the existing heavy vehicle route.
 - b. A siting board confirmed that the existing barracks fuel point was the best place to provide an Adblue delivery point as it is able to support LAND 121 vehicles.

Gallipoli Barracks

- 34. Siting options for a new maintenance facility at 7 CSSB focused on construction of a new facility over the existing footprint or a new facility over existing Army Reserve Unit lines next to the unit. The proposed solution is to build over the existing footprint as it was found to be more cost efficient with less disruption to other units within the barracks. There is also a requirement to relocate two small units from 7 CSSB lines into existing refurbished facilities in the 17 Combat Service Support Brigade precinct.
- 35. A siting board confirmed that the existing barracks fuel point was the best place to provide an Adblue delivery point as it is able to support LAND 121 vehicles.

RAAF Base Williamtown

- 36. A siting board was undertaken for the 26 Sqn MEOMS for an expansion to the existing workshop to enable maintenance of the increased number of vehicles RAAF Base Williamtown will receive.
- 37. Siting options for other proposed facilities for RAAF Base Williamtown included:
 - a. Various options were looked at within RAAF Base Williamtown to site the weighbridge. The proposed site, on Knox-Knight Road, was selected due to available space and the location being adjacent to the existing base vehicle support facilities.

Holsworthy Barracks

38. Various options were looked at within Holsworthy Barracks to site the weighbridge. The proposed site, on Old Illawarra Road, was selected due to available space and the location being adjacent to the existing base vehicle support facilities.

Puckapunyal Military Area

- 39. The weighbridge has been sited on Mont St Quentin Road to allow for safe heavy vehicle movement on a traffic thoroughfare.
- 40. A siting board confirmed that the existing barracks fuel point was the best place to provide an Adblue delivery point as it is able to support LAND 121 vehicles.

RAAF Base Edinburgh

- 41. A siting board was undertaken for the 24 Sqn MEOMS as for an expansion to the existing workshop to enable maintenance of the increased number of vehicles RAAF Base Williamtown will receive.
- 42. Siting options for other proposed facilities for RAAF Base Edinburgh included:
 - a. The weighbridge will be sited at a previously considered site under the Hardened Network Army project which is adjacent to centralised vehicle support facilities' precinct.
 - b. A siting board confirmed that the existing barracks fuel point was the best place to provide an Adblue delivery point as it is able to support LAND 121 vehicles.

Campbell Barracks

43. Proposed works for Campbell Barracks were sited to align with facilities being delivered under the Campbell Barracks Redevelopment Project. The new fuelpoint, weighbridge, loading ramps and washpoint will be collocated in a centralised location to enable a vehicle support facilities' precinct.

Robertson Barracks

- 44. The weighbridge will be sited near the heavy vehicle access point to the base which is adjacent to centralised vehicle support facilities' precinct
- 45. A siting board confirmed that the existing barracks fuel point was the best place to provide an Adblue delivery point as it is able to support LAND 121 vehicles.

Detailed Description of the Proposed Works

46. Detailed site plans for each of the proposed project elements are at Attachment 3. The following sections outline the proposed works at each of these elements.

Project Element 1 – Lavarack Barracks

- 47. The floor plans and layouts for the proposed facilities are included at Attachment 4. The proposed facilities will include the following elements:
 - a. a new shared workshop for 3 CSSB/10 FSB capable of servicing LAND 121 vehicles,

- b. hardstand and shelters for 3 CSSB and 10 FSB for an increased vehicle allocation including bulk fuel tankers,
- c. a new Q-Store for 3 CSSB to replace the displaced Q-Store,
- d. new ablutions and storage areas for 3 CSSB to replace displaced areas,
- e. a new car parking area to replace a displaced car park,
- f. a new weighbridge, and
- g. an Adblue delivery point.

Project Element 2 – Gallipoli Barracks

- 48. The floor plans and layouts for the proposed facilities are included at Attachment 5. The proposed facilities will include the following elements:
 - a. a new workshop for 7 CSSB capable of servicing LAND 121 vehicles,
 - b. new hardstanding for an increased vehicle allocation,
 - c. construction of a new combined Q-Store building to meet an increased storage requirement due to an increased vehicle allocation,
 - d. new general storage areas to meet the requirements of LAND 121 vehicles POL and Hazardous materials, and
 - e. an Adblue delivery point.

Project Element 3 – RAAF Base Williamtown

- 49. The floor plans and layouts for the proposed facilities are included at Attachment 6.

 The proposed facilities will include the following elements:
 - a. an expanded workshop for 26 Sqn MEOMS capable of servicing LAND 121 vehicles,
 - b. a new storage area for LAND 121 vehicle parts,
 - c. a new battery maintenance area for LAND 121 vehicles,
 - d. extension of existing workshop hardstand to cater for an increased servicing requirement,
 - e. a new weighbridge capable of taking LAND 121 vehicles, and
 - f. an Adblue delivery point.

Project Element 4 – Holsworthy Barracks

50. The layout for the proposed facility is included at Attachment 7. The proposed facility will include a new weighbridge capable of taking LAND 121 vehicles.

Project Element 5 – Puckapunyal Military Area

- 51. The floor plans and layouts for the proposed facilities are included at Attachment 8.

 The proposed facilities will include the following elements:
 - a. a new weighbridge capable of taking LAND 121 vehicles, and
 - b. a new Adblue delivery point.

Project Element 6 – RAAF Base Edinburgh

- 52. The floor plans and layouts for the proposed facilities are included at Attachment 9. The proposed facilities will include the following elements:
 - a. an expanded workshop for 24 Sqn MEOMS capable of servicing LAND 121 vehicles,
 - b. new hardstanding for vehicles awaiting servicing,
 - c. a new weighbridge capable of taking LAND 121 vehicles, and
 - d. a new Adblue delivery point.

Project Element 7 – Campbell Barracks

53. The floor plans and layouts for the proposed facilities are included at Attachment 10. The proposed facilities will include a new wash point, fuel point, weighbridge and loading ramps capable of taking LAND 121 vehicles.

Project Element 8 – Robertson Barracks

- 54. The floor plans and layouts for the proposed facilities are included at Attachment 11. The proposed facilities will include the following elements:
 - a. a new weighbridge capable of taking LAND 121 vehicles, and
 - b. a new Adblue delivery point.

Public Transport, Local Road and Traffic Concerns

55. There is no increase to base populations as a result of this project. However, during construction there will be an inevitable increase to the number of large vehicles that enter the bases to deliver materials to site. Contractual arrangements within each construction contract will mitigate the effects of this on the local road network through the development of traffic plans within each Site Management Plan.

Zoning and Local Approvals

56. Since all proposed works will occur on Commonwealth land, there will be no change to existing land use conditions. The intended function and use of all project elements are consistent with Defence Zone Plans for the areas the works are proposed.

Childcare Provisions

57. There is no requirement for additional childcare facilities, as this project does not increase base populations.

Impact on Local Community

- 58. The proposal will generate short-term employment opportunities, predominantly in the building, construction and labour markets in the Townsville, Brisbane, Sydney, Puckapunyal, Adelaide, Perth and Darwin areas.
- 59. The following are approximate estimates of required subcontractors for each of the sites:
 - a. Lavarack Barracks 280 personnel;
 - b. Gallipoli Barracks 90 personnel;
 - c. RAAF Base Williamtown 35 personnel;
 - d. Holsworthy Barracks 10 personnel;
 - e. Puckapunyal Military Area 60 personnel;
 - f. Campbell Barracks 30 personnel;
 - g. RAAF Base Edinburgh 35 personnel;
 - h. Robertson Barracks 10 personnel; and

- i. RAAF Base Darwin 20 personnel.
- 60. The proposal will also generate some off-site job opportunities through the manufacture and distribution of materials over the construction period. This will provide a positive economic stimulus for small and medium enterprises in areas where work is proposed.

Planning and Design Concepts

- 61. The general design philosophy for the proposed facilities incorporates the following considerations:
 - a. Retaining existing infrastructure (including roads and trunk services) and vegetation where possible;
 - b. Planning large compounds to suit existing topography thereby avoiding significant earth works;
 - c. Where possible separating heavy vehicle traffic from general Base traffic;
 - d. Providing a planning framework and structure that is clearly legible to users and visitors alike. In particular providing address points to major units and clear definition of unit lines and, where possible, separate non unit related vehicle movements from unit related traffic;
 - e. Providing, as much as possible, a buffer separating noise and night-time activities from adjacent residential areas;
 - f. Maintaining appropriate setbacks to buildings from Base roads and allow for landscape buffers;
 - g. Reinforcing positive features of the existing character of each base and provide a framework for future development;
 - h. Where feasible and applicable (for bases such as Gallipoli Barracks) maximise the use of multi-storey structures to minimise land area impact of buildings;
 - i. All facilities should be designed to provide appropriate solar orientation and maximising prevailing breezes;
 - j. Planning for unit precincts and compounds should, where possible, allow for future expansion and development; and
 - k. Pedestrian separation from vehicle movement.

Structural Design

- 62. The proposed new buildings will be steel framed structures with concrete floor slabs and metal deck roofs. In some cases external load bearing masonry and precast panel walls will be used. Where possible, internal walls will be non-load bearing frames lined with plasterboard to provide maximum flexibility for future layout.
- 63. Internal partitions to office areas will be either fixed or demountable, with paint finish, depending on specific requirements. Partitions will provide acoustic separation suitable for the room functions, to a minimum standard specified in the Acoustic Section of this submission. Selected areas will be provided with high quality sound isolation appropriate to the nature of the area. This may include sound proofing of partitions and doors.

Materials

64. External walls for new and extended buildings will consist of profiled metal sheeting. Consideration will be given to provide relief in the detailing of external walls to avoid long flat facades. All new buildings will have mono-pitched roofs with overhangs appropriate to their purpose and location. Roofs generally will be steel with zincalume or colorbond finished metal roofing.

Hydraulic Services

- 65. The scope of proposed hydraulic services includes, but is not limited to, the provision of:
 - a. water supply suitable for fire-fighting purposes;
 - b. water supply suitable for domestic purposes;
 - c. sewerage drainage service;
 - d. stormwater drainage service; and
 - e. reticulated gas service.
- 66. These Hydraulic Services will comply with AS3500: National Plumbing and Drainage Code of Australia, National Construction Code, Building Code of Australia 2013 and relevant regulatory authorities' standards as prescribed by the relevant water authorities in Sydney, Perth, Darwin and Townsville.

Electrical Services

67. The electrical supply to the proposed facilities will be from the existing electrical network for each base. Investigations have confirmed that there is adequate capacity within each network for the proposed facilities. The scope of the proposed electrical services comprises site infrastructure and in-building services. The electrical (power and lighting) systems shall conform to the requirements of all applicable legislation, codes of practice and guidance publications relevant to Queensland, New South Wales, Victoria, South Australia, Western Australia and the Northern Territory, as well as Defence Standards and Guidelines, specifically the Manual of Infrastructure Engineering – Electrical (MIEE).

Fire Protection

68. All construction and fire protection requirements will, as a minimum, be in accordance with the provisions of the National Construction Code – Building Code of Australia 2013, the Defence Manual of Fire Protection Engineering, and all other applicable Codes and Standards.

Acoustics

69. The new facilities will comply with the National Construction Code - Building Code of Australia and Australian Standards for noise and acoustics. Acoustic separation has been considered between rooms and walls, and partitions are being designed to meet user requirements and building function.

Security

70. Advice from Defence security authorities has been incorporated in the design solutions for the proposed facilities where appropriate. Security Risk Assessments have also informed the proposed designs. As such, the facilities meet appropriate security classifications as stipulated by Defence requirements.

Environmental Sustainability of the Project

71. The Commonwealth is committed to Ecologically Sustainable Development and the reduction in greenhouse gas emissions. Defence reports annually to Parliament on the energy efficiency targets, established by Government, as part of its commitment to

improve Ecologically Sustainable Development. Defence also implements policies and strategies in energy, water and waste to improve natural resource efficiency and to support its commitment to the reduction of energy consumption, potable water consumption and waste diversion to landfill.

- 72. The Ecologically Sustainable Development targets and requirements shall comply with the Defence Building Performance Manual. The Ecologically Sustainable Development targets and measures for this project have been balanced with other requirements for Defence buildings, such as functional and security requirements and Work Health and Safety. Defence Ecologically Sustainable Development policies have been addressed by adopting cost effectiveness and Ecologically Sustainable Development as key objectives in the design development and delivery of new facilities.
- 73. Ecologically Sustainable Development objectives and solutions are considered in the design to reduce the impact on the wider environment. This occurs through the use of sustainable design and construction techniques, and management systems that will reduce energy consumption and natural resources by:
 - a. **Energy and greenhouse gas emissions minimization** Strategies to address this include adopting passive building design principles for new facilities, use of energy efficient Heating, Ventilation and Air Conditioning, lighting and control systems, natural ventilation, and energy management systems.
 - b. **Water use reduction** The overall aim is to reduce potable water use by specifying water efficient fixtures and fittings, water sensitive landscaping and water management systems (including recharging of the groundwater aquifer at Campbell Barracks).
 - c. Indoor environment to maximise occupant comfort This will be achieved by adopting a number of strategies including provision of daylight to occupied spaces, shading for privacy and glare control, building orientation, and thermal insulation in non-conditioned spaces.
 - d. **Renewable energy** Photovoltaic systems are being considered to be installed to supplement mains power supply for some facilities.

Landscaping

74. The proposed landscape design will introduce plant selections that will comprise predominately indigenous vegetation (native and endemic) to minimise water use and to ensure landscapes are durable, sustainable and low maintenance.

Energy Targets

75. There are no applicable energy targets for this proposal.

Workplace Health and Safety Measures

- 76. The proposed facilities to be provided under this project will comply with Department of Defence's WHS Policy, the *Work Health and Safety Act (WHS) 2011* (Cth), Work Health and Safety (Commonwealth Employment National Standards) Regulations and the Defence WHS Manual.
- 77. In accordance with Section 35(4) of the *Building and Construction Industry Improvement Act 2005* (Cth), contractors will also be required to hold full work health and safety accreditation from the Office of the Federal Safety Commissioner under the Australian Government Building and Construction Work Health and Safety Accreditation Scheme.
- 78. Safety aspects of this proposal have been addressed during the design process and have been documented in a Safety in Design Report completed by the Managing Contractor. No special or unusual public safety risks have been identified in this process. The successful construction contractor will also be required to submit a Safety Plan for the construction phase prior to the start of any construction activities.

Provisions for People with Disabilities

79. Access will be provided to facilities in accordance with the access and mobility provisions of the National Construction Code – Building Code of Australia 2013, Australian Standard AS1428.1 (Parts 1 to 4) and the Defence Policies.

Cost Effectiveness and Public Value

Outline of Project Costs

- 80. The estimated out-turned cost of this project is \$276.5 million, excluding Goods and Service Tax. The cost estimate includes the construction costs, management and design fees, furniture, information communications technology, fitting and equipment, contingencies, and escalation allowance.
- 81. Net operating costs associated as a result of the proposed project will increase due to the construction of new facilities.

Details of the Project Delivery System

- 82. A Project Manager / Contract Administrator has been appointed by the Commonwealth to manage the project works and the associated administration of contracts in the Planning Phase. Subject to Parliamentary approval, value for money assessments and satisfactory performance of the Project Manager / Contract Administrator, the Commonwealth may extend the Project Manager / Contract Administrator into the Delivery Phase of the Project.
- 83. A Managing Contractor has been engaged to undertake Development Phase (planning and design) of the Project. The Managing Contractor strategy provides Defence with maximum flexibility in determining the elements to be included in a project and the design of those elements with the management expertise of a construction organisation to assist and advise in developing the design, and coordinating the interface between design and construction. Subject to Parliamentary approval, value for money assessments and satisfactory performance of the Managing Contractor, the Commonwealth may extend the Managing Contractor into the Delivery Phase of the Project.

Construction Program

84. Subject to Parliamentary approval of the project, construction is expected to commence in March 2016, with staged completion of facilities occurring between late 2016 and mid 2019.

Public Value

- 85. The proposed works will support an important Defence capability need for Army and the Air Force and allow maintenance of vehicles to be conducted in contemporary facilities.
- 86. The provision of contemporary facilities will enhance Australian Defence Force personnel's environment enabling them to perform their duties more efficiently whilst also improving morale and retention.
- 87. Provision of weighbridge facilities enables legislative compliance with local and state government entities, providing a commitment to the chain of safety for both Australian Defence Force personnel and civilians alike.
- 88. The project will also employ a diverse range of skilled consultants, contractors and construction workers that could also include opportunities for up-skilling and job training to improve individual skills and employability on future projects.

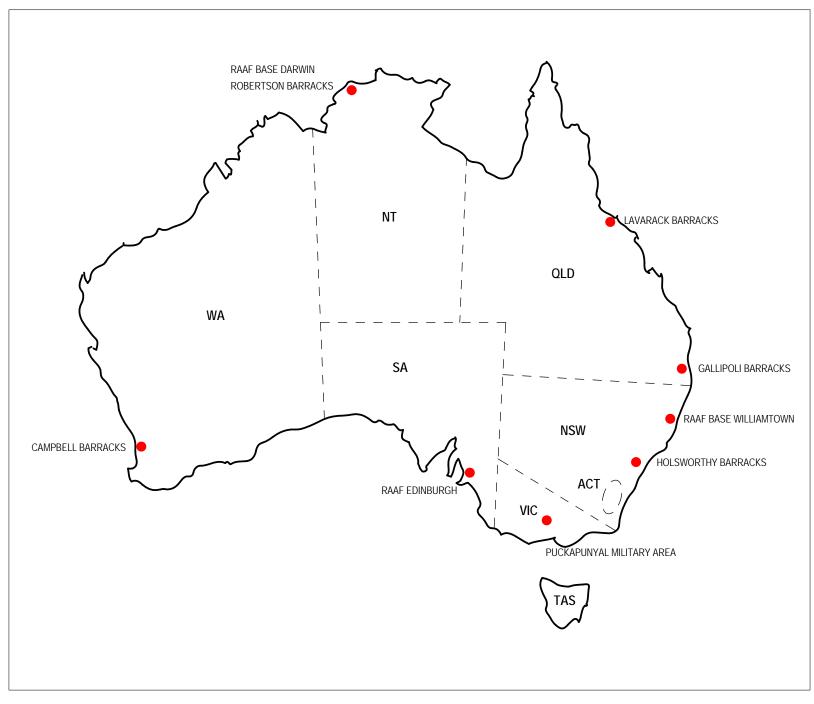
Revenue

89. No revenue will be derived from this project.

Land 121 - Unit Sustainment Facilities Project Submission 1

Attachment 1

Locality Plan





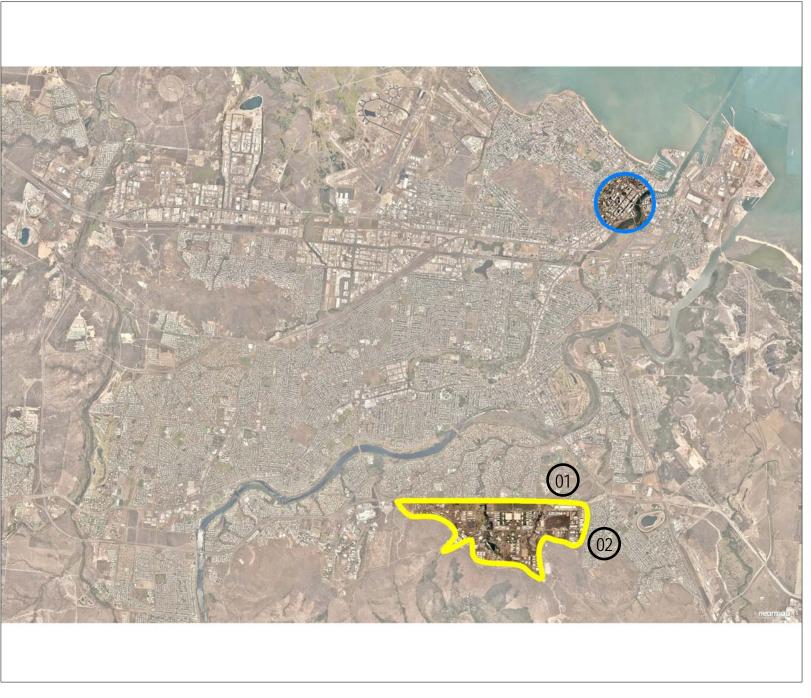
Land 121 - Unit Sustainment Facilities Project Submission 1

Attachment 2

Regional Plans

- 2-1. Lavarack Barracks
- 2-2. Gallipoli Barracks
- 2-3. RAAF Base Williamtown
- 2-4. Holsworthy Barracks
- 2-5. Puckapunyal Military Area
- 2-6. RAAF Base Edinburgh
- 2-7. Campbell Barracks
- 2-8. Robertson Barracks

Land 121 - Unit Sustainment Facilities Project Submission 1



SITE PLAN LEGEND

LAVARACK BARRACKS

TOWNSVILLE CBD

01 10 FSB 02 3 CSSB



Land 121 - Unit Sustainment Facilities Project Submission 1



SITE PLAN LEGEND

GALLIPOLI BARRACKS, ENOGGERA

BRISBANE CBD

7 CSSB 11 CHC / 10 FSB CATR PL ADBLUE 01 02 03



Land 121 - Unit Sustainment Facilities Project Submission 1



SITE PLAN LEGEND

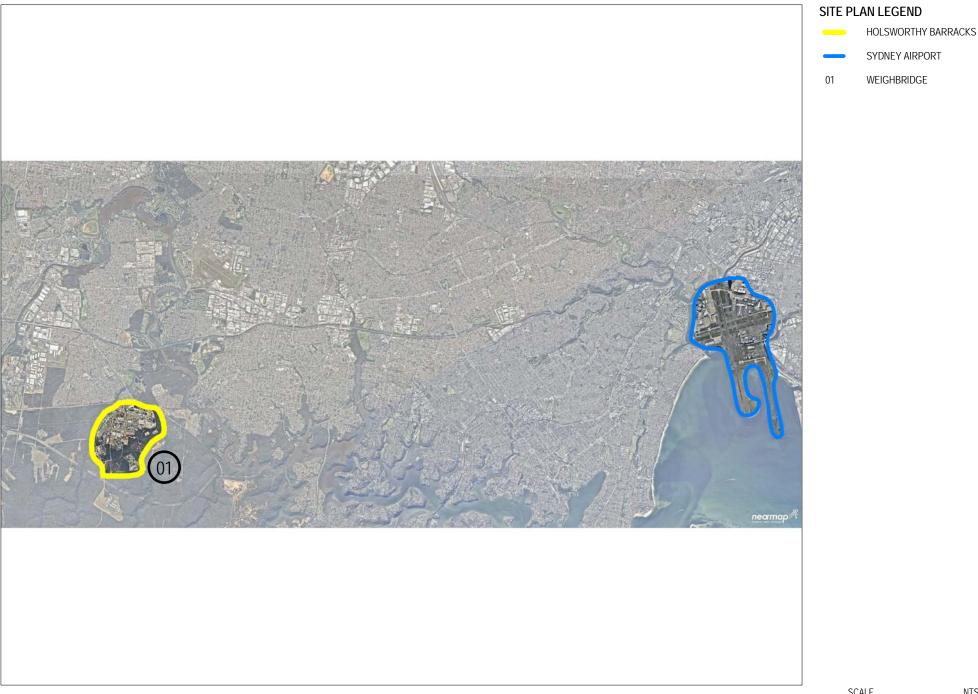
RAAF BASE WILLIAMTOWN

NEWCASTLE CBD

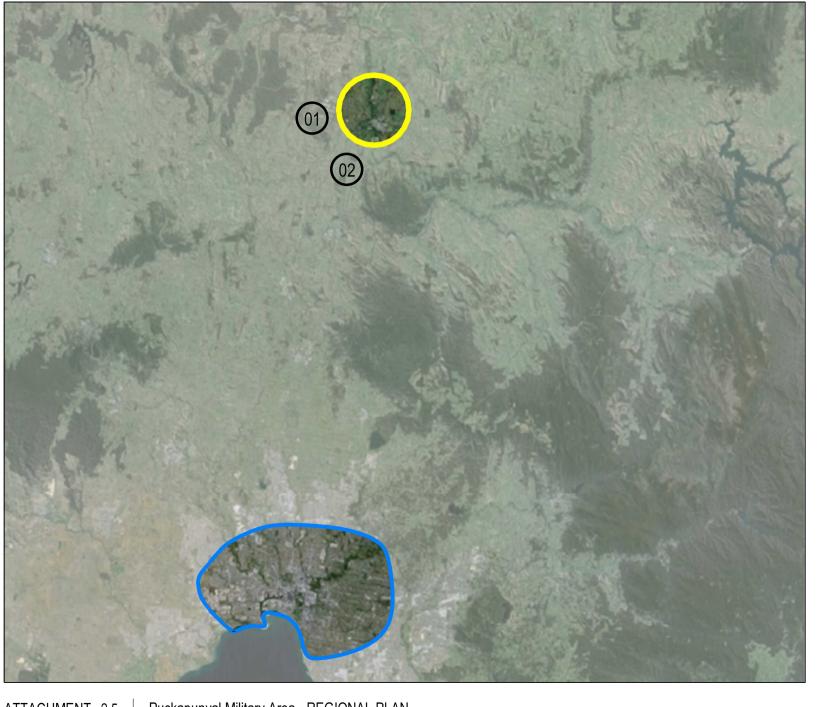
26SQN MEOMS WEIGHBRIDGE

SCALE NTS

Land 121 - Unit Sustainment Facilities Project Submission 1



Land 121 - Unit Sustainment Facilities Project Submission 1



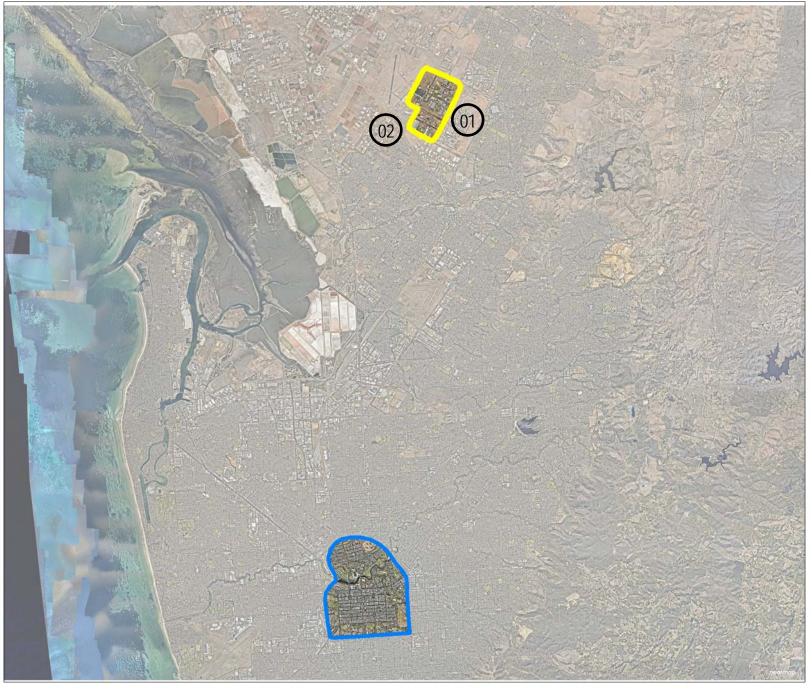


PUCKAPUNYAL MILITARY AREA

MELBOURNE CBD

WEIGHBRIDGE ADBLUE 01 02

Land 121 - Unit Sustainment Facilities Project Submission 1

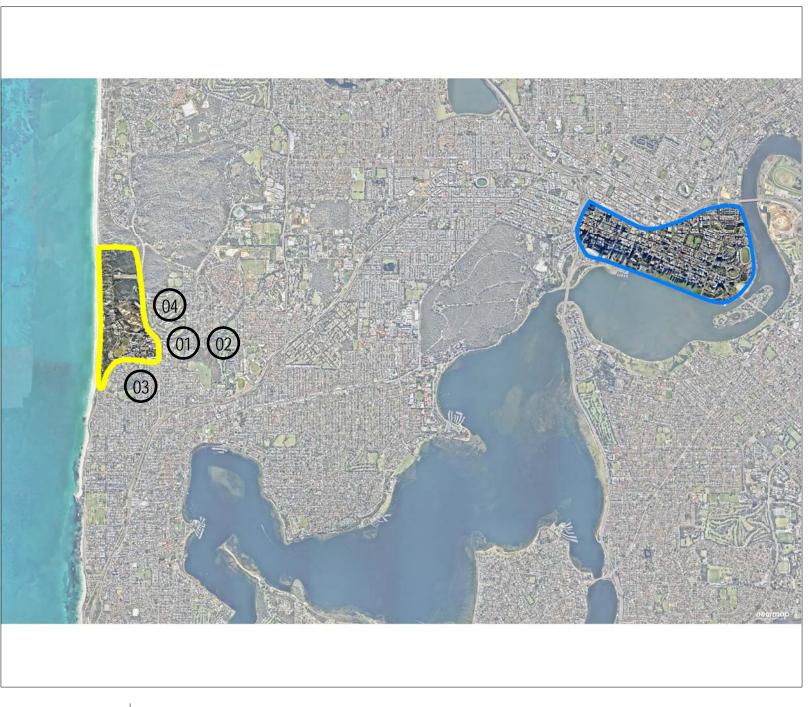




RAAF EDINBURGH

ADELAIDE CBD

01 ADBLUE 02 WEIGHBRIDGE











ROBERTSON BARRACKS



DARWIN CBD

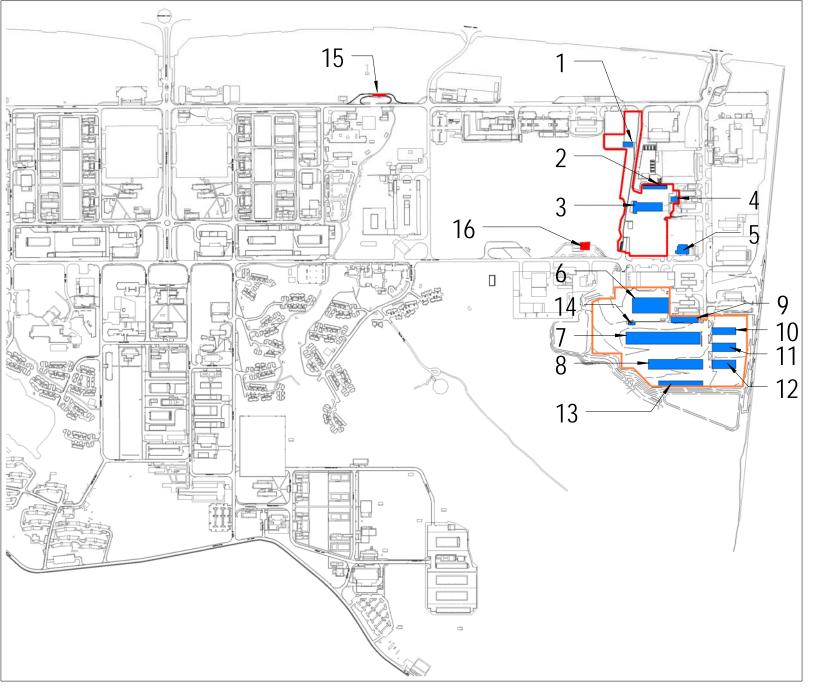
01 02 WEIGHBRIDGE ADBLUE



Attachment 3

Site Plans

- 3-1. Lavarack Barracks
- 3-2. Gallipoli Barracks
- 3-3. RAAF Base Williamtown
- 3-4. Holsworthy Barracks
- 3-5. Puckapunyal Military Area
- 3-6. RAAF Base Edinburgh
- 3-7. Campbell Barracks
- 3-8. Robertson Barracks



SITE PLAN LEGEND

_

10 FSB

BUILDINGS / NEW INFRASTRUCTURE

- 1 VEHICLE SHELTER 1
- VEHICLE SHELTER 2
- VEHICLE SHELTER 3
- ADMINISTRATION BUILDING
- PT SHELTER 10 FSB & 3 CSSB

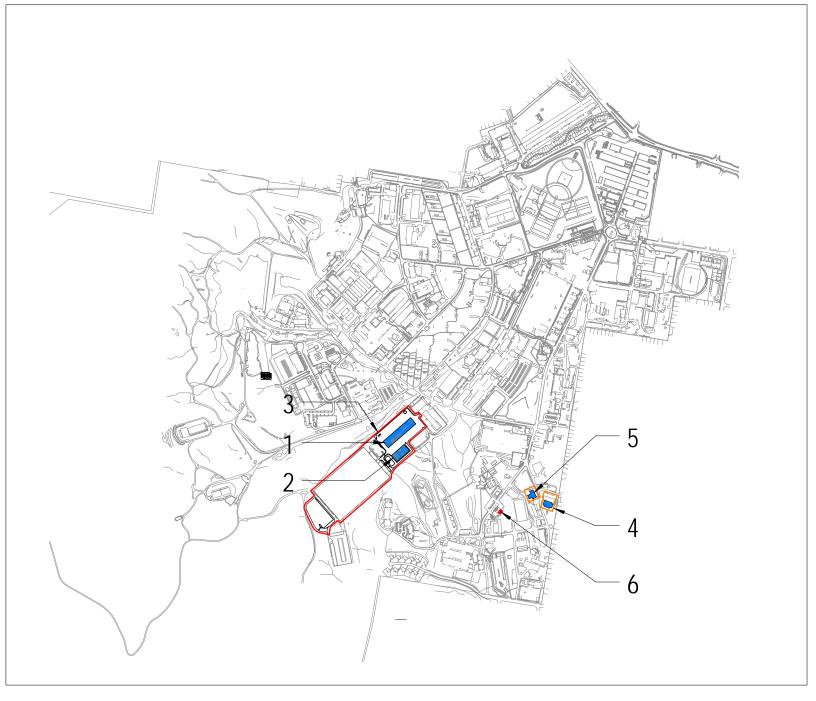
3 CSSB

BUILDINGS / NEW INFRASTRUCTURE

- 6 Q-STORE
- WORKSHOP
- RECOVERY PLATOON FACILITY
- SHOWER AND LOCKER FACILITY
- 10 VEHICLE SHELTER 1
- 11 VEHICLE SHELTER 2
- 12 VEHICLE SHELTER 3
- 13 VEHICLE SHELTER 4
- 14 GAS SHELTER

GENERAL REQUIREMENTS

- 15 WEIGHBRIDGE
- 16 ADBLUE



SITE PLAN LEGEND

7 CSSB

BUILDINGS / NEW INFRASTRUCTURE

- WORKSHOP
- Q-STORE
- 1 2 3 HAZARDOUS MATERIAL STORE



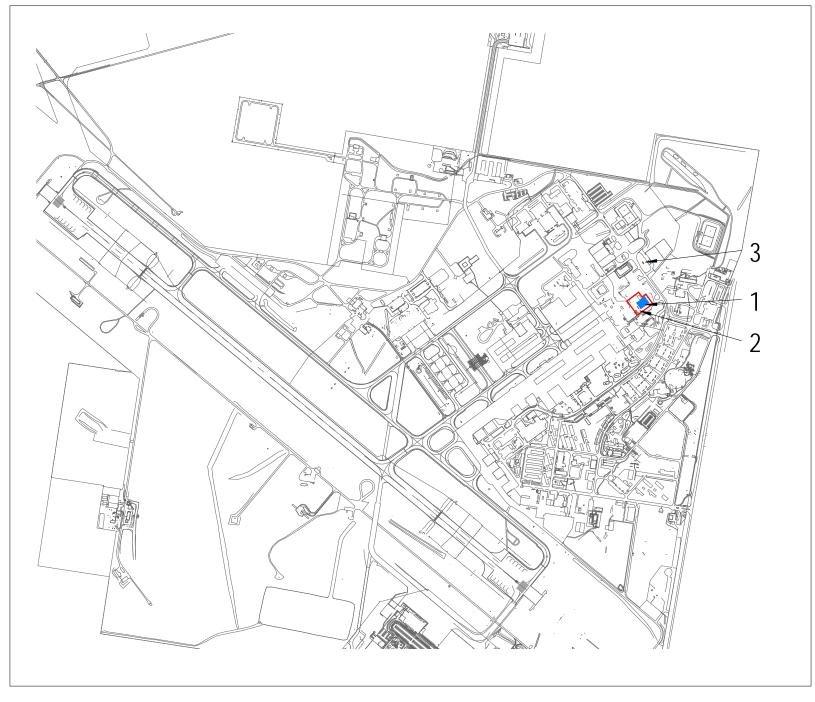
11 CHC / 10 FSB CATR PL

- Q-STORE
- PLATOON BUILDING

GENERAL REQUIREMENTS

6 ADBLUE





SITE PLAN LEGEND

26SQN MEOMS

BUILDINGS / NEW INFRASTRUCTURE

WORKSHOP INSPECTION RAMP 1

GENERAL REQUIREMENTS

WEIGHBRIDGE 3



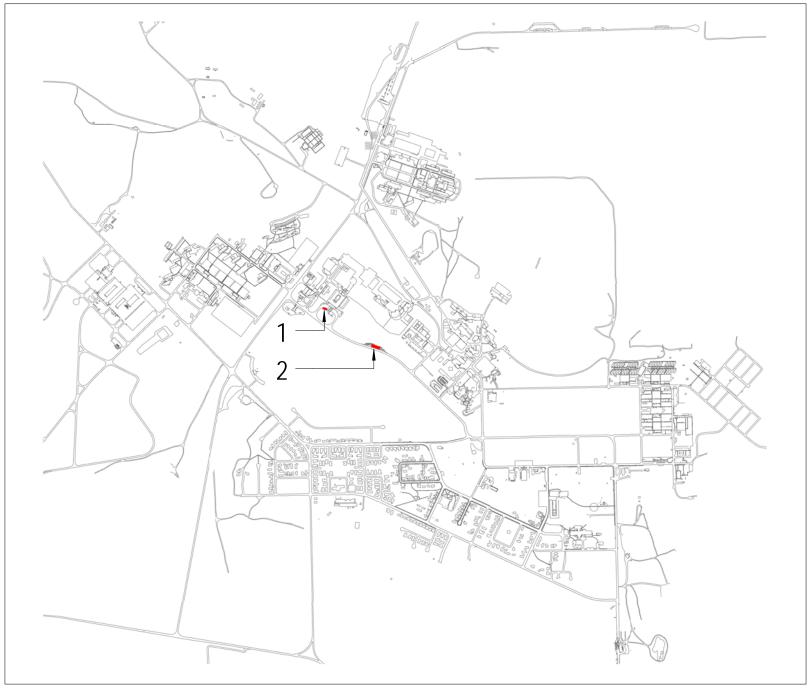
SITE PLAN LEGEND

BUILDINGS / NEW INFRASTRUCTURE

WEIGHBRIDGE



Land 121 - Unit Sustainment Facilities Project Submission 1



SITE PLAN LEGEND

GENERAL REQUIREMENTS

- 1
- ADBLUE WEIGHBRIDGE





SITE PLAN LEGEND

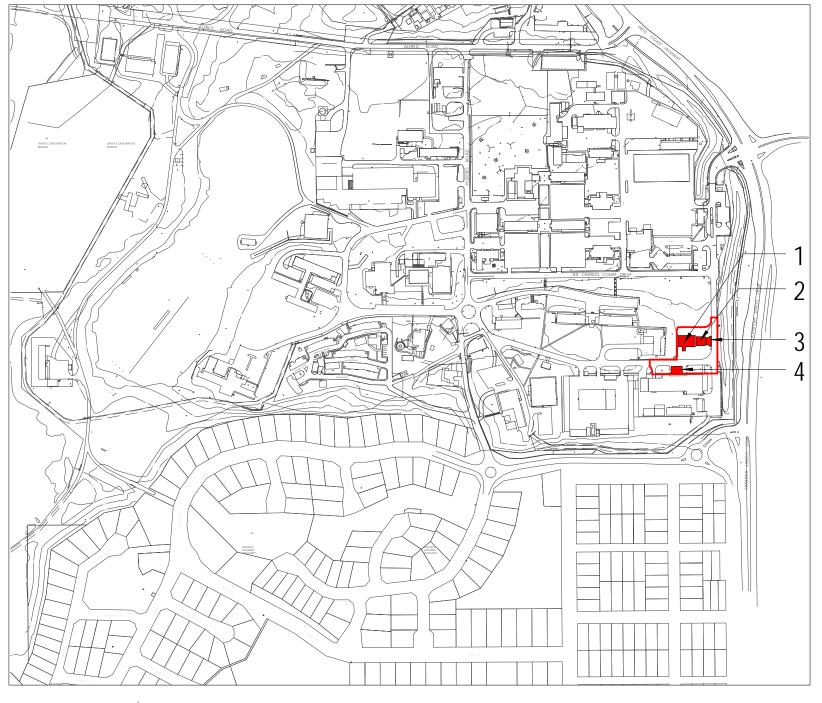
24SQN MEOMS

BUILDINGS / NEW INFRASTRUCTURE

WORKSHOP

GENERAL REQUIREMENTS

- 2
- ADBLUE WEIGHBRIDGE

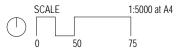


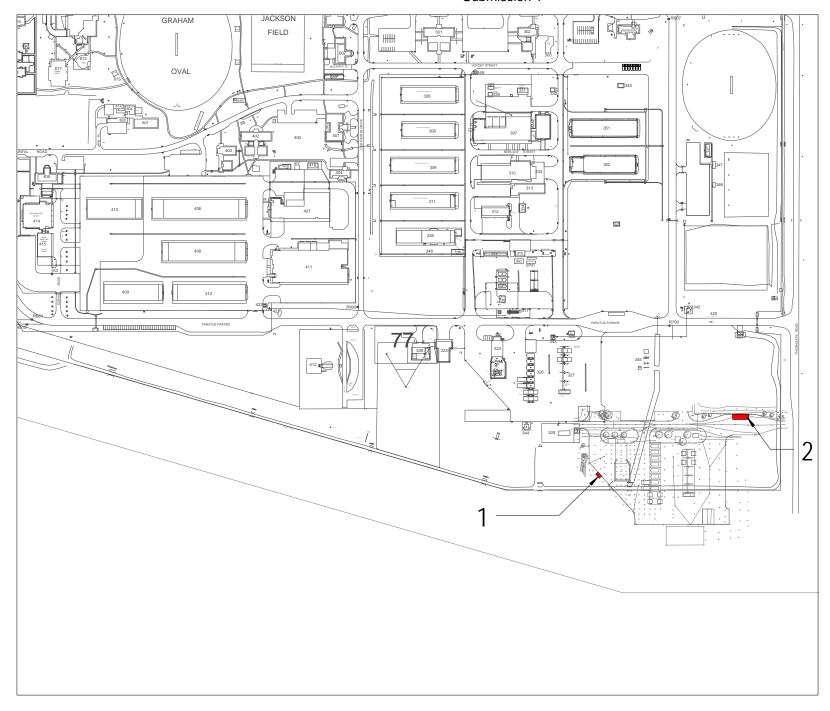
SITE PLAN LEGEND

GENERAL REQUIREMENTS AREA

NEW INFRASTRUCTURE

- WASHPOINT
- FUEL POINT
- 3 WEIGHBRIDGE
- 4 LOADING RAMPS

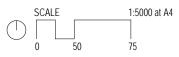




SITE PLAN LEGEND

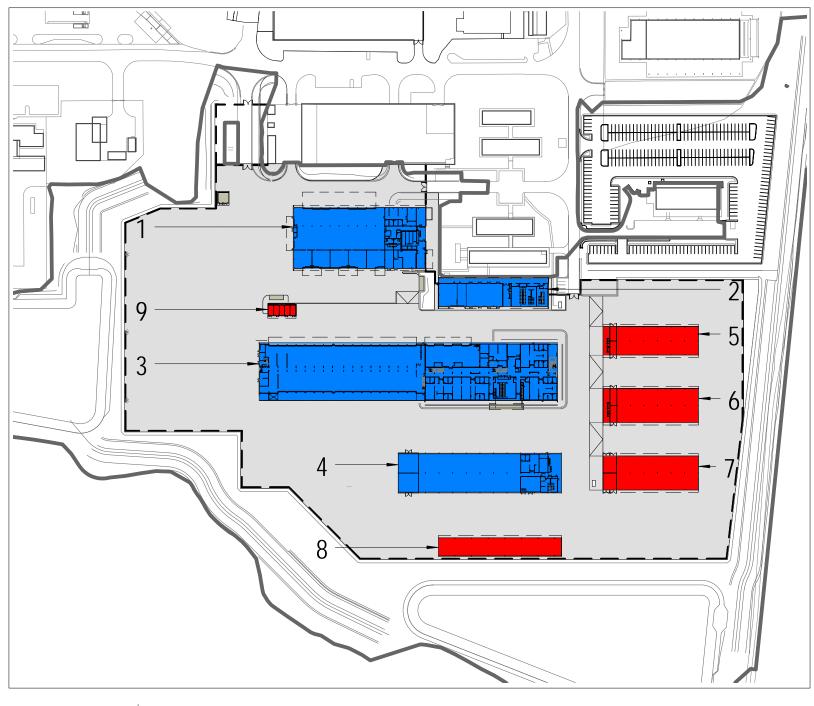
NEW INFRASTRUCTURE

ADBLUE WEIGHBRIDGE



Attachment 4

Lavarack Barracks Facilities Floor Plans and Layouts



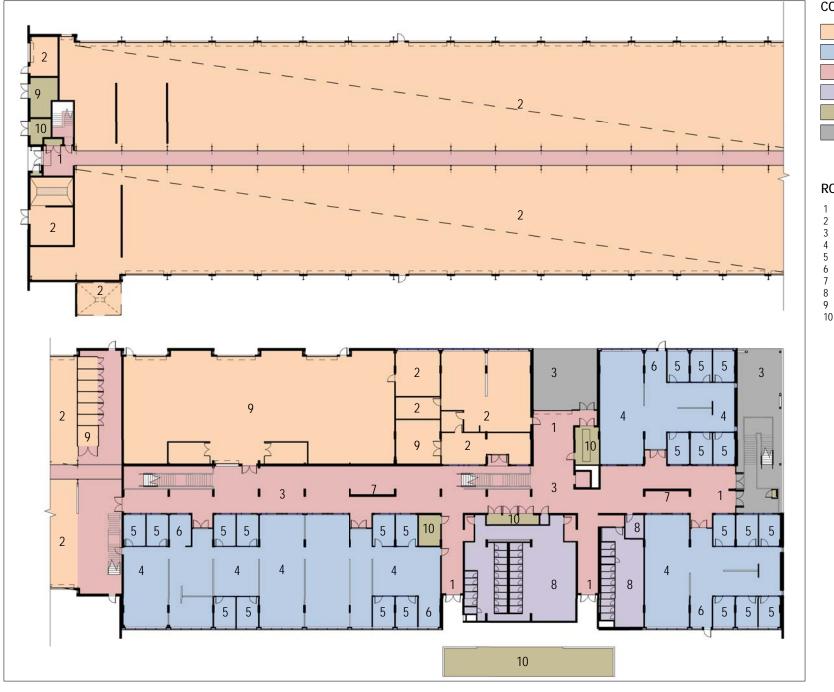
BUILDINGS SHOWN IN DETAIL

- 1 Q-STORE
- 2 SHOWER AND LOCKER FACILITY
- 3 WORKSHOP
- 4 RECOVERY PLATOON FACILITY

OTHER NEW INFRASTRUCTURE

- 5 VEHICLE SHELTER 1
- VEHICLE SHELTER 2
- VEHICLE SHELTER 3
- 8 VEHICLE SHLETER 4 9 GAS STORE



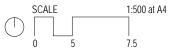






BUILDING SERVICES UNDER COVERED AREA

- 1 ENTRY
- 2 WORKSHOP
- 3 BREEZEWAY
- 4 OPEN PLAN OFFICE
- 5 SINGLE OFFICE
- 6 UTILITY / SUPPORT
- 7 BREW
- 8 AMENITIES
- 9 STORE
- 10 PLANT / BUILDING SERVICES

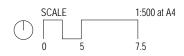




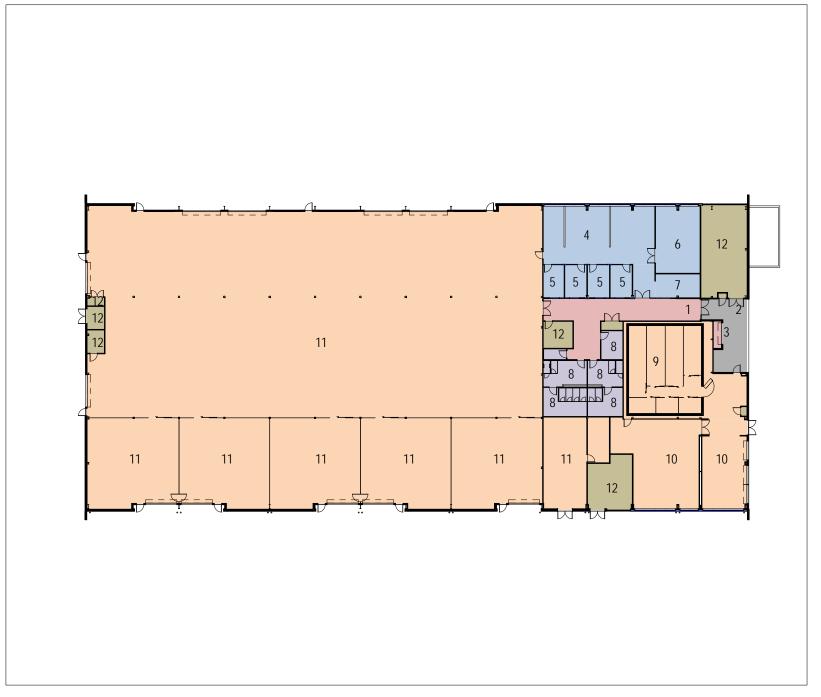




- 1 ENTRY
- 2 WORKSHOP
- 3 BREEZEWAY
- 4 TRAINING / MEETING
- OPEN PLAN OFFICE
- SINGLE OFFICE
- UTILITY / SUPPORT
- 8 LUNCH / BRIEF
- 9 AMENITIES
- 10 PLANT / BUILDING SERVICES
- 11 VOID OVER LEVEL BELOW









Q STORE / WORKSHOP

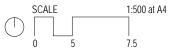
OFFICES

CIRCULATION / ANCILLARY SPACE

WET AREAS

BUILDING SERVICES UNDER COVERED AREA

- 1 ENTRY
- 2 BREEZEWAY
- 3 BREW
- 4 OPEN PLAN OFFICE
- SINGLE OFFICE
- CONFERENCE / MEETING
- 7 UTILITY / SUPPORT
- 8 AMENITIES
- 9 ARMOURY
- 10 WORKSHOP
- 11 STORE
- 12 PLANT / BUILDING SERVICES



Land 121 - Unit Sustainment Facilities Project Submission 1



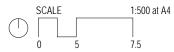
SCALE NTS





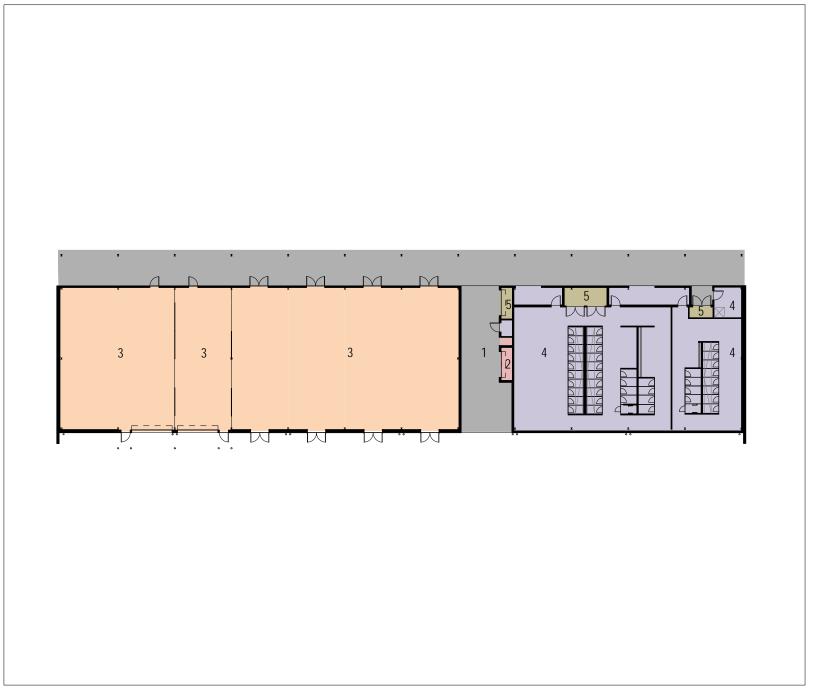


- 1 BREEZEWAY
- 2 AMENITIES
- 3 BREW
- 4 OPEN PLAN OFFICE
- 5 SINGLE OFFICE
- 6 UTILITY / SUPPORT
- 7 STORE
- 8 PLANT / BUILDING SERVICES
- 9 VEHICLE BAYS





SCALE NTS





Q STORE / WORKSHOP

CIRCULATION / ANCILLARY SPACE

WET AREAS BUILDING SERVICES

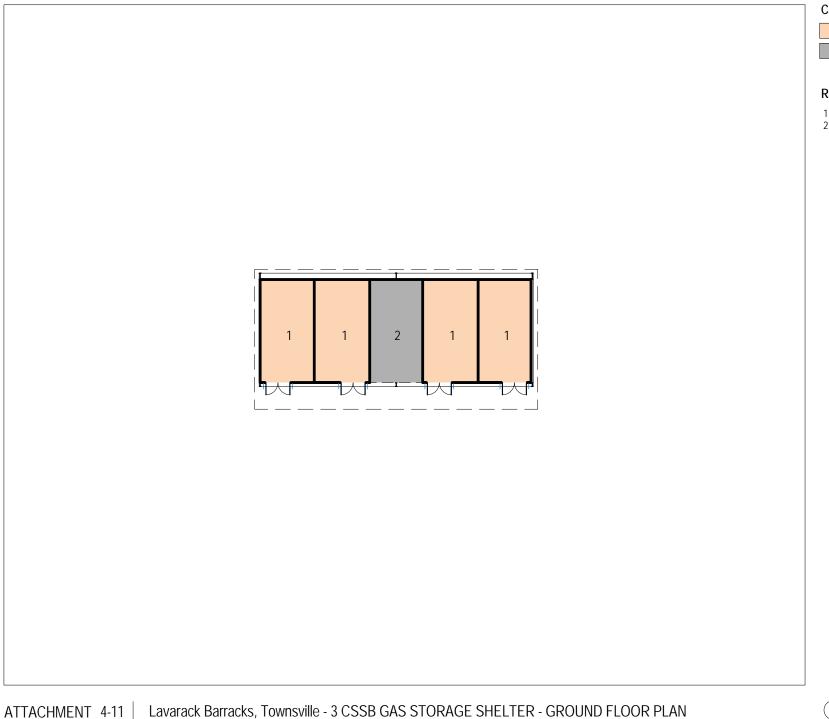
UNDER COVERED AREA

- 1 BREEZEWAY
- 2 BREW 3 STORE
- 4 AMENITIES
- 5 PLANT / BUILDING SERVICES

Land 121 - Unit Sustainment Facilities Project Submission 1



SCALE NTS

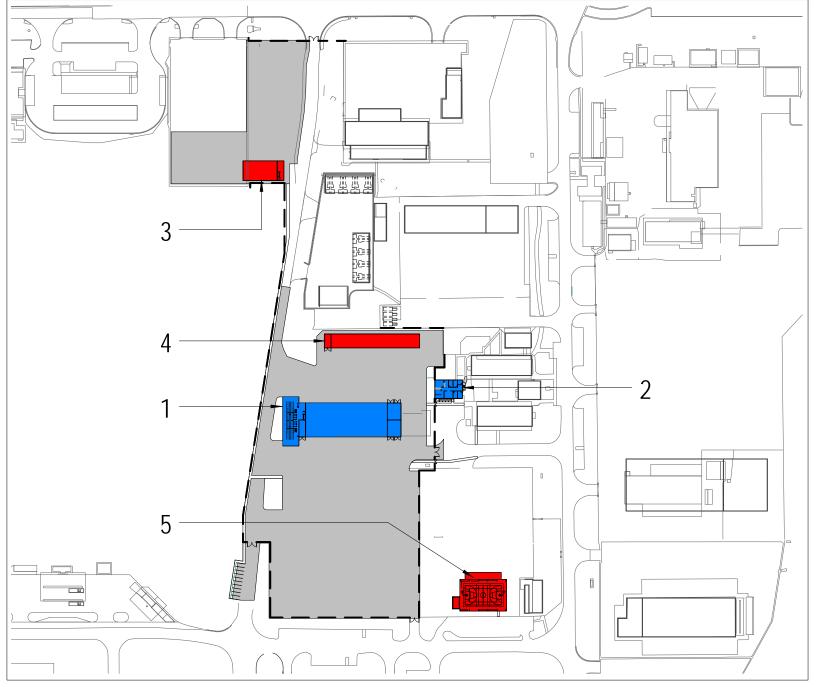






- 1 HAZARDOUS MATERIAL STORE
- 2 UNDER COVER AREA



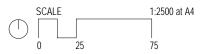


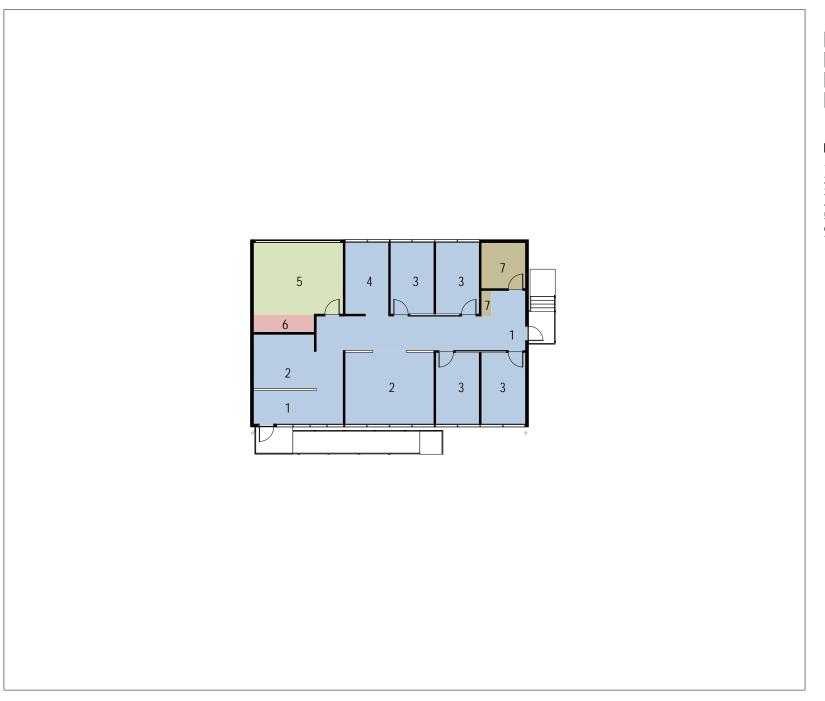
BUILDINGS SHOWN IN DETAIL

- 1 VEHICLE SHELTER 32 ADMINISTRATION BUILDING

OTHER NEW INFRASTRUCTURE

- 3 VEHICLE SHELTER 1
- 4 VEHICLE SHELTER 2 5 PT SHELTER 10FSB & 3 CSSB

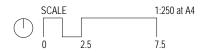


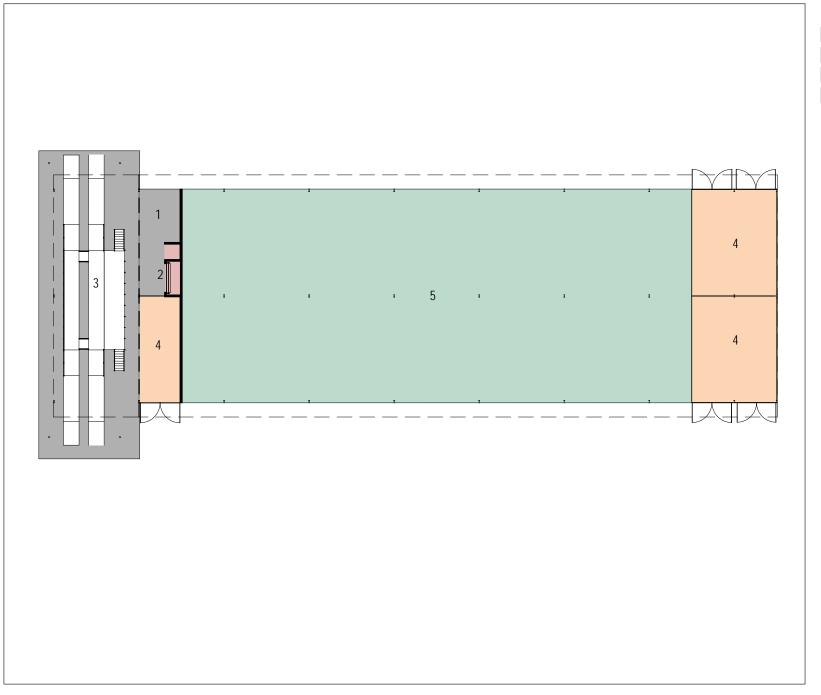






- 1 ENTRY
- 2 OPEN PLAN OFFICE AREA
- 3 SINGLE OFFICE
- 4 UTILITIES / SUPPORT
- 5 BRIEFING
- 6 BREW
- 7 PLANT / BUILDING SERVICES

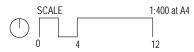






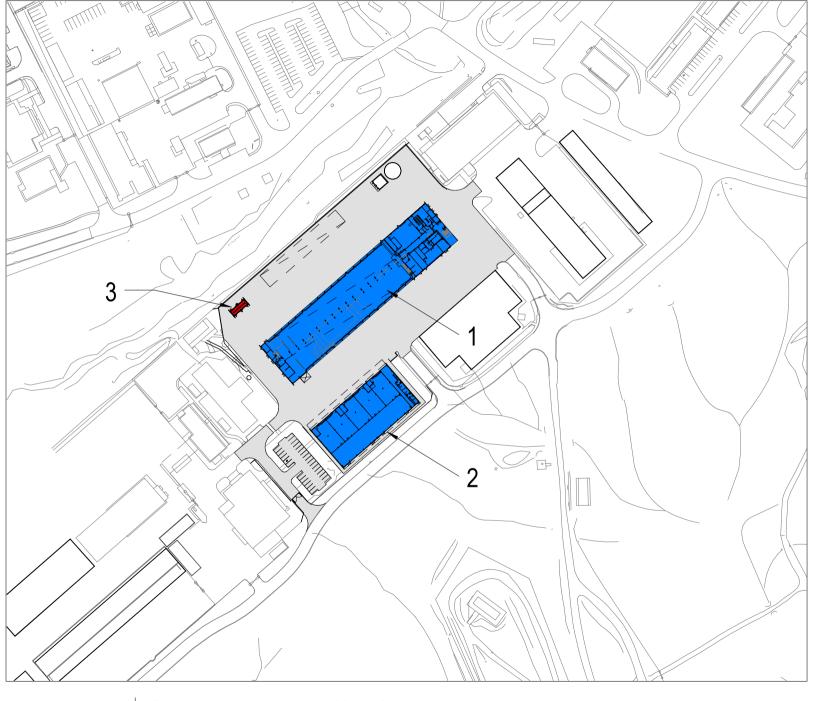


- 1 UNDER COVER AREA
- 2 BREW
- 3 INSPECTION RAMP
- 4 STORE
- 5 VEHICLE BAYS



Attachment 5

Gallipoli Barracks Facilities Floor Plans and Layouts

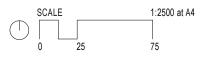


BUILDINGS SHOWN IN DETAIL

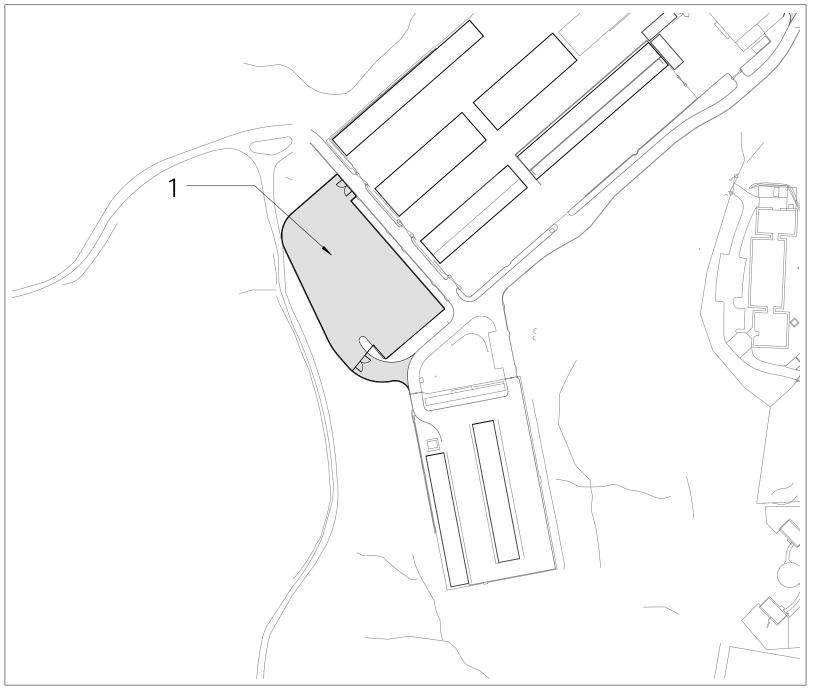
- 1 WORKSHOP 2 Q-STORE

OTHER NEW INFRASTRUCTURE

3 HAZARDOUS MATERIALS STORE

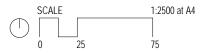


Land 121 - Unit Sustainment Facilities Project Submission 1



BUILDINGS SHOWN IN DETAIL

1 NEW 7 CSSB TRAILER COMPOUND

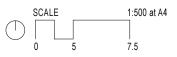








- 1 ENTRY
- 2 BREEZEWAY
- 3 WORKSHOP
- 4 OPEN PLAN OFFICE
- 5 SINGLE OFFICE
- 6 UTILITY / SUPPORT
- 7 BREW
- 8 AMENITIES
- 9 STORE
- 10 PLANT / BUILDING SERVICES



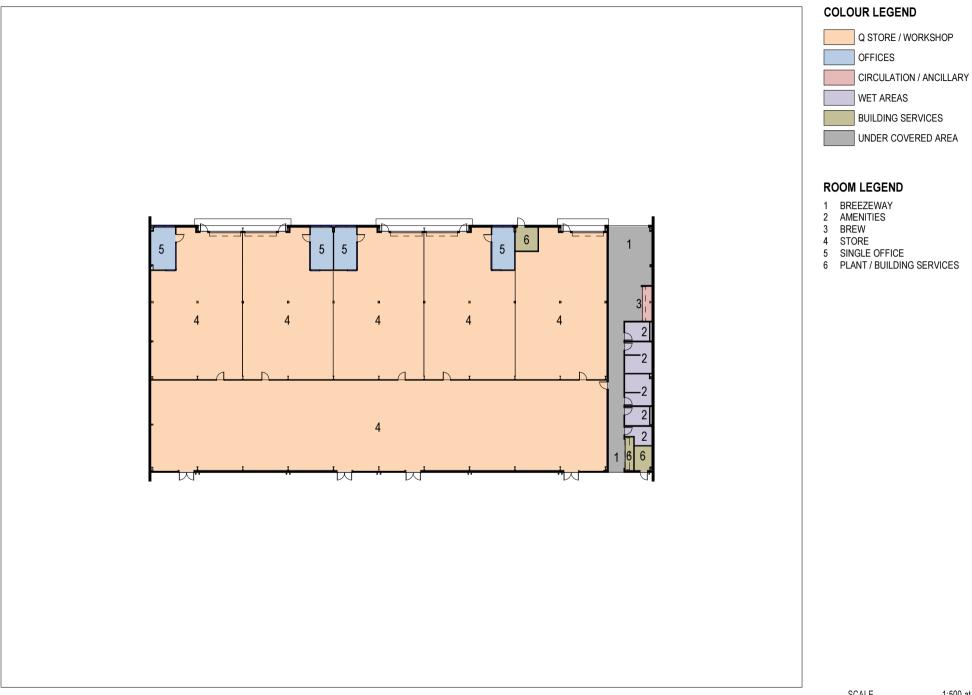






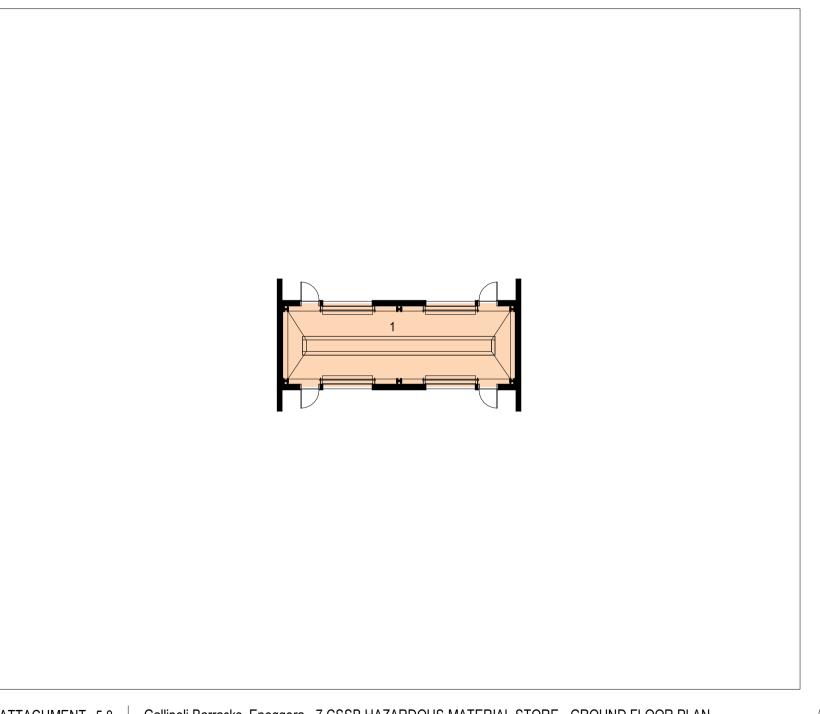
- 1 ENTRY
- 2 WORKSHOP
- 3 BREEZEWAY
- 4 AMENITIES
- 5 OPEN PLAN OFFICE
- 6 SINGLE OFFICE
- 7 UTILITY / SUPPORT
- 8 MEETING / CONFERENCE
- 9 LUNCH / BRIEF
- 10 BREW
- 11 PLANT / BUILDING SERVICES
- 12 VOID OVER LEVEL BELOW



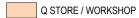




SCALE

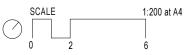


COLOUR LEGEND



ROOM LEGEND

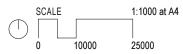
1 HAZARDOUS MATERIAL STORE

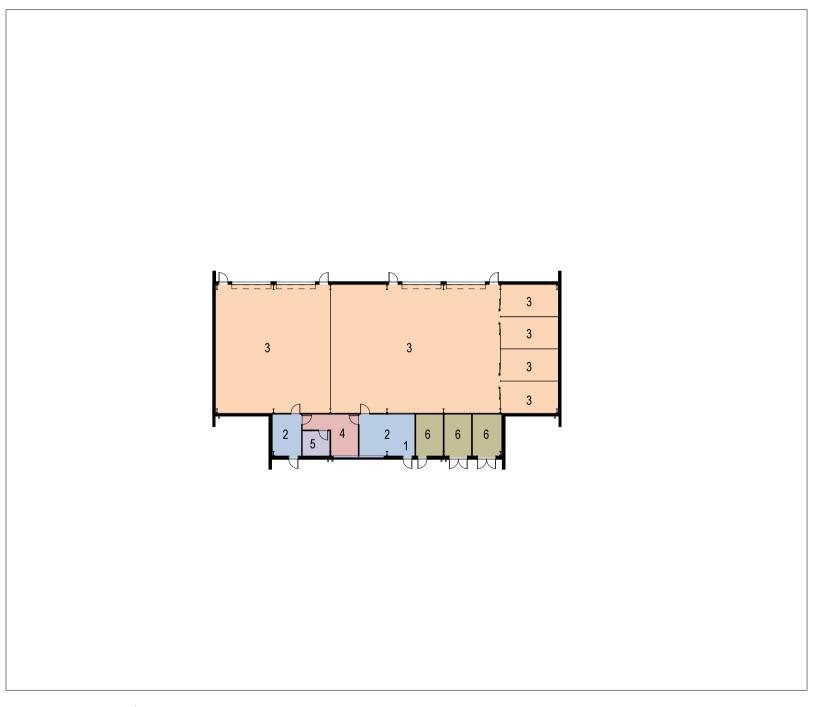


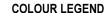


BUILDINGS SHOWN IN DETAIL

- 1 Q-STORE 11 CHC & 10 FSB CATR PL 2 NEW SHARED VEHICLE COMPOUND
- 3 PLATOON BUILDING





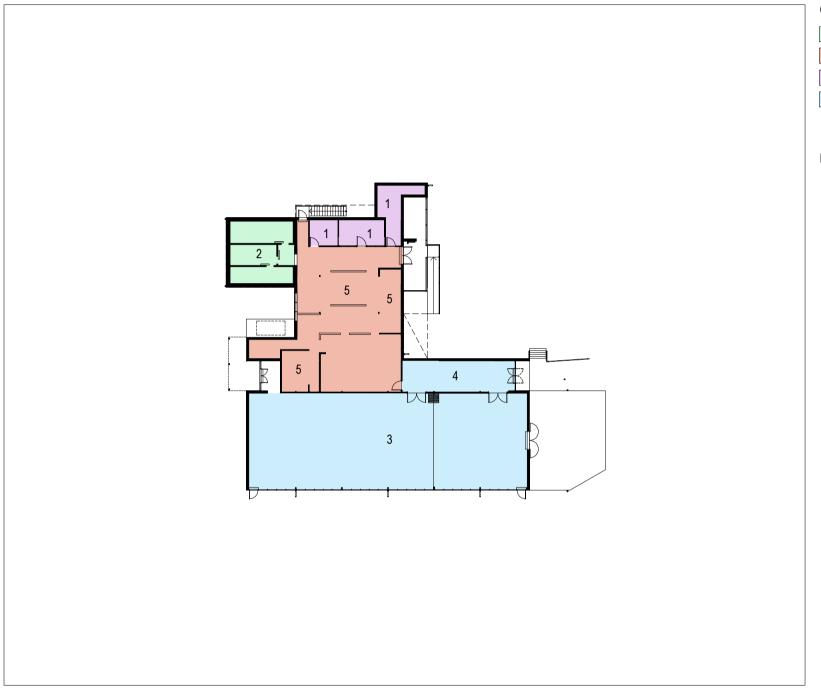




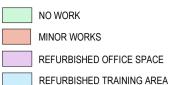
ROOM LEGEND

- 1 ENTRY
- 2 OPEN PLAN OFFICE AREA
- 3 STORE
- 4 BREW
- 5 AMENITIES
- 6 PLANT / SERVICES







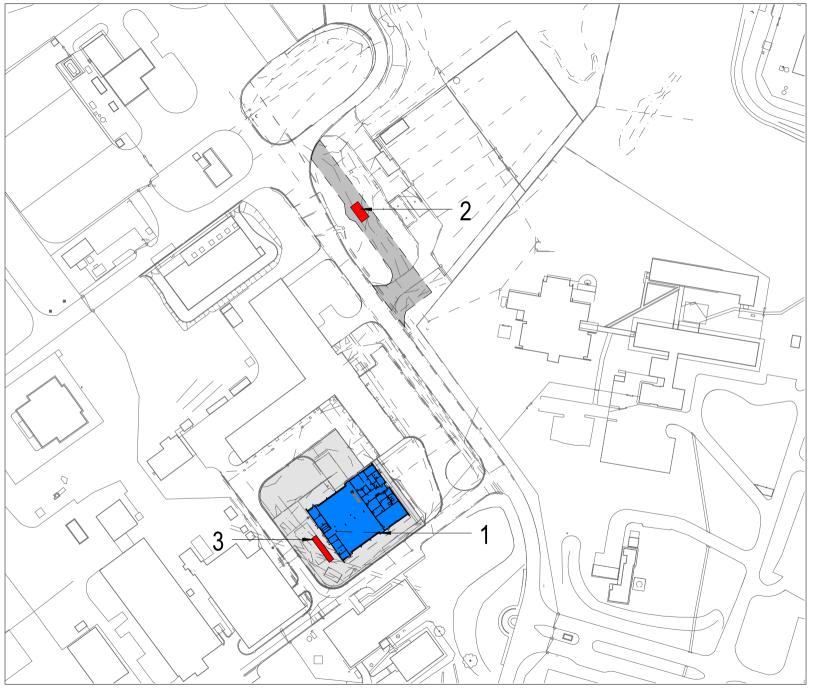


ROOM LEGEND

- 1 OFFICE
- 2 RATIONS STORE
- 3 SHARED TRAINING
- 4 DRN HOTDESK AREA
- 5 PLATOON STORES

Attachment 6

RAAF Base Williamtown Facilities Floor Plans and Layouts



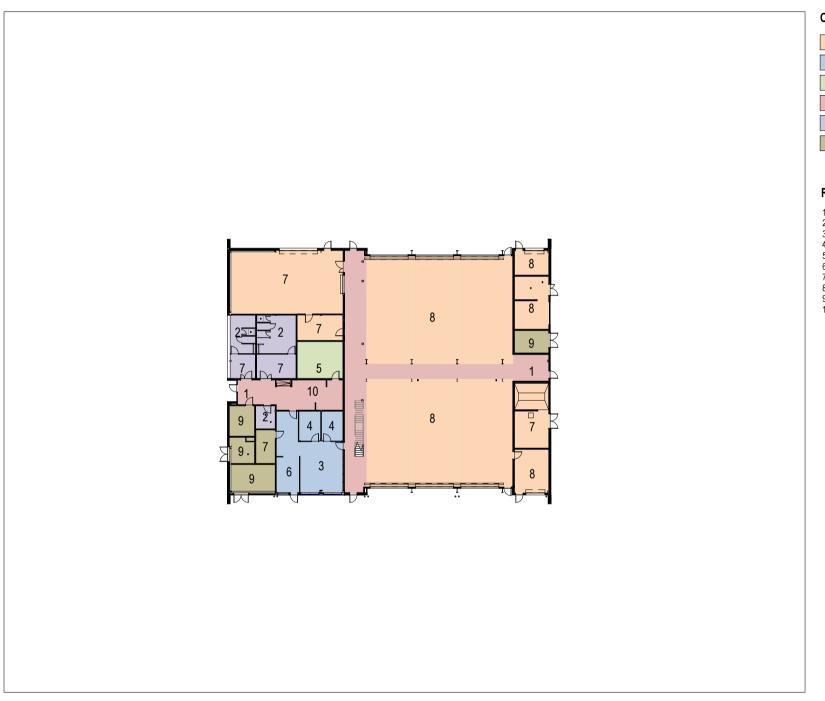
BUILDINGS SHOWN IN DETAIL

1 WORKSHOP

OTHER NEW INFRASTRUCTURE

- 2 WEIGHBRIDGE3 INSPECTION RAMP



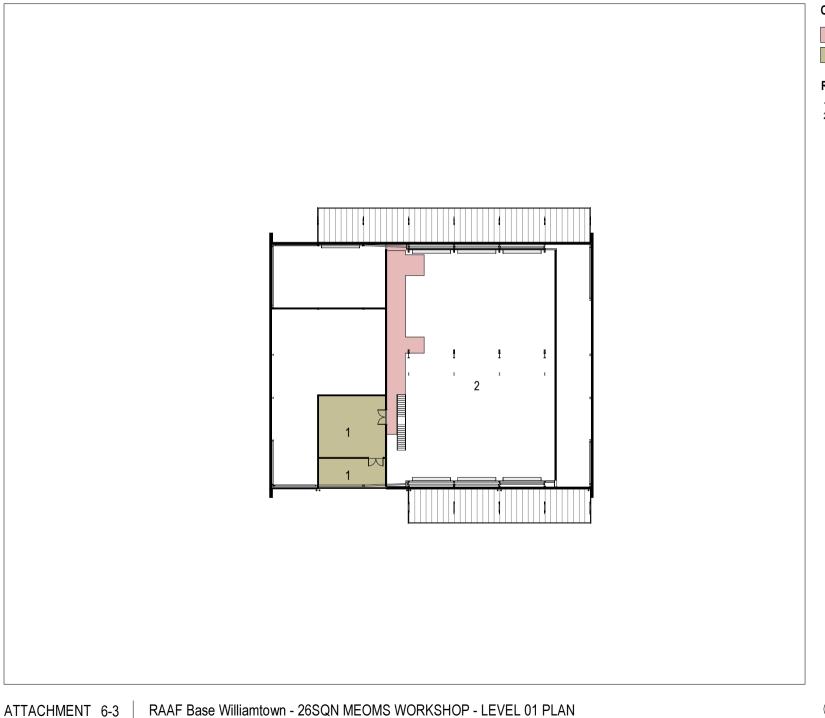




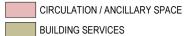


ROOM LEGEND

- 1 ENTRY
- 2 AMENITIES
- 3 OPEN PLAN OFFICE AREA
- 4 SINGLE OFFICE
- 5 CONFERENCE / BRIEFING
- 6 UTILITY / SUPPORT
- 7 STORE
- 8 WORKSHOP
- 9 PLANT/ SERVICES
- 10 BREW



COLOUR LEGEND



ROOM LEGEND

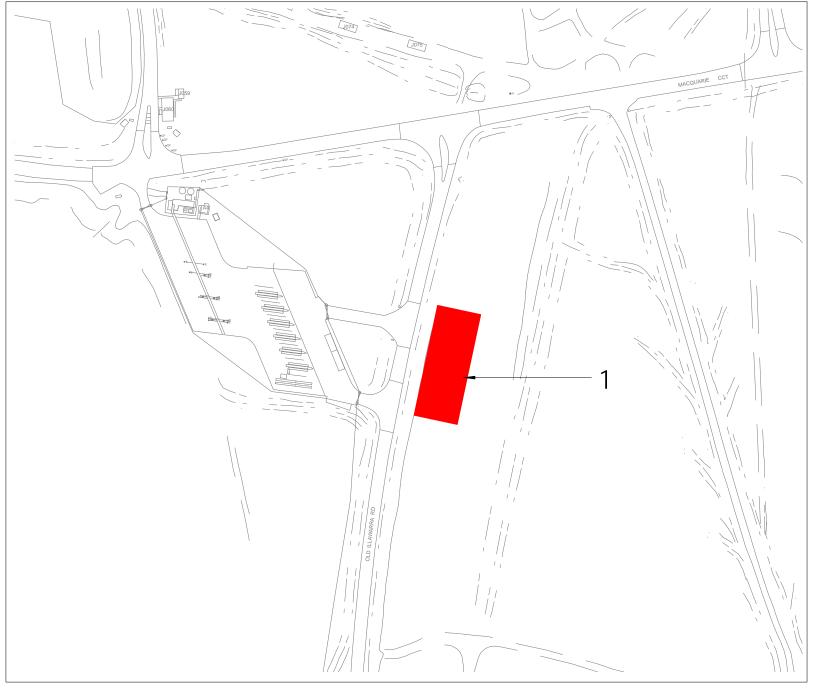
- 1 PLANT / BUILDING SERVICES
- 2 VOID OVER LEVEL BELOW





Attachment 7

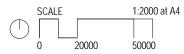
Holsworthy Barracks Facility Layout



SITE PLAN LEGEND

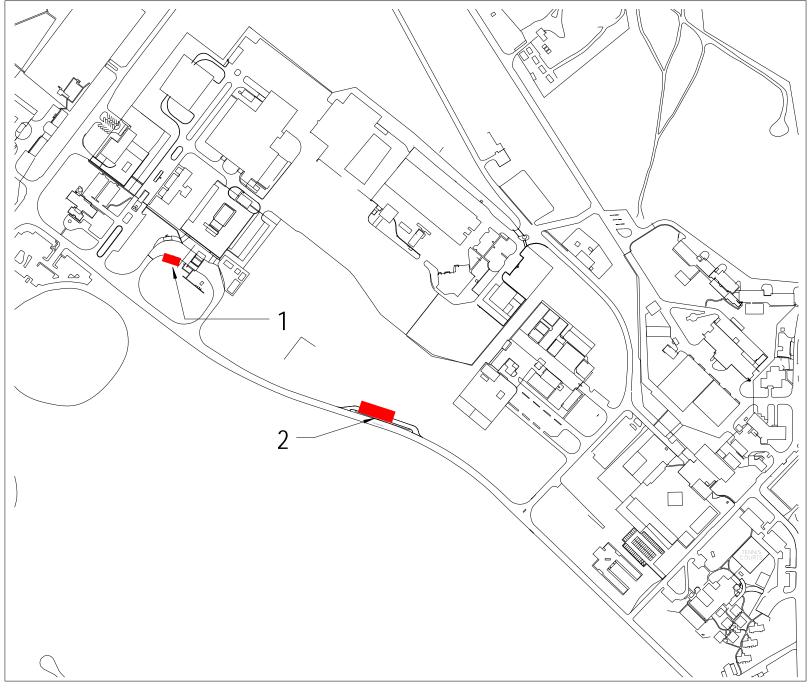
NEW INFRASTRUCTURE

WEIGHBRIDGE



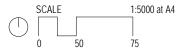
Attachment 8

Puckapunyal Military Area Facilities Floor Plans and Layouts



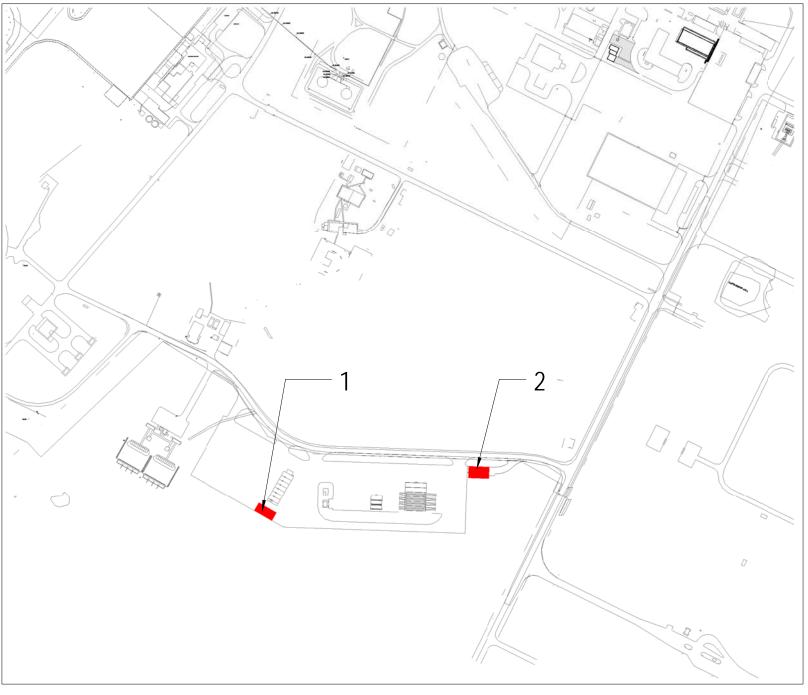
NEW INFRASTRUCTURE

- 1 ADBLUE 2 WEIGHBRIDGE



Attachment 9

RAAF Base Edinburgh Facilities Floor Plans and Layouts

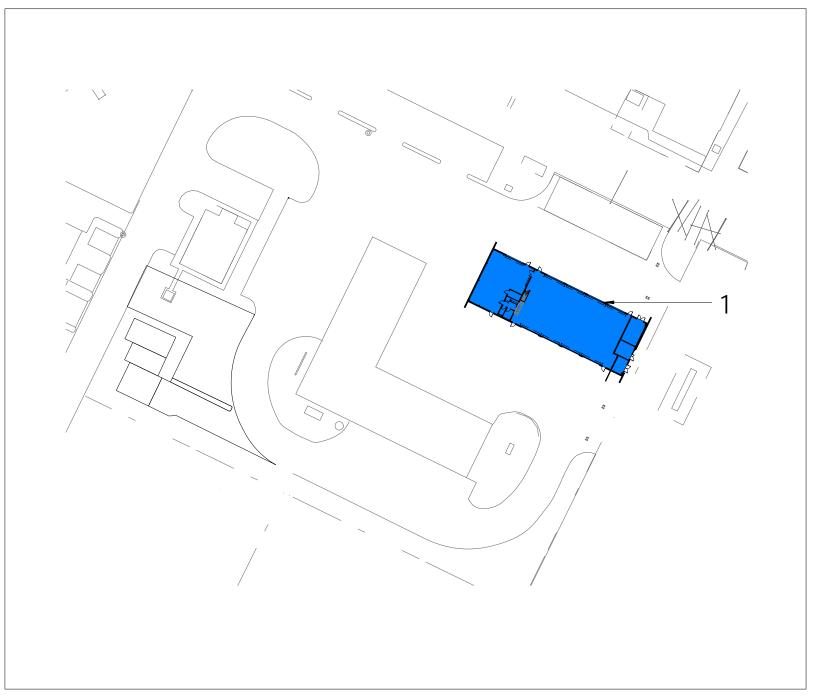


SITE PLAN LEGEND

NEW INFRASTRUCTURE

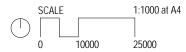
- 1
- ADBLUE WEIGHBRIDGE

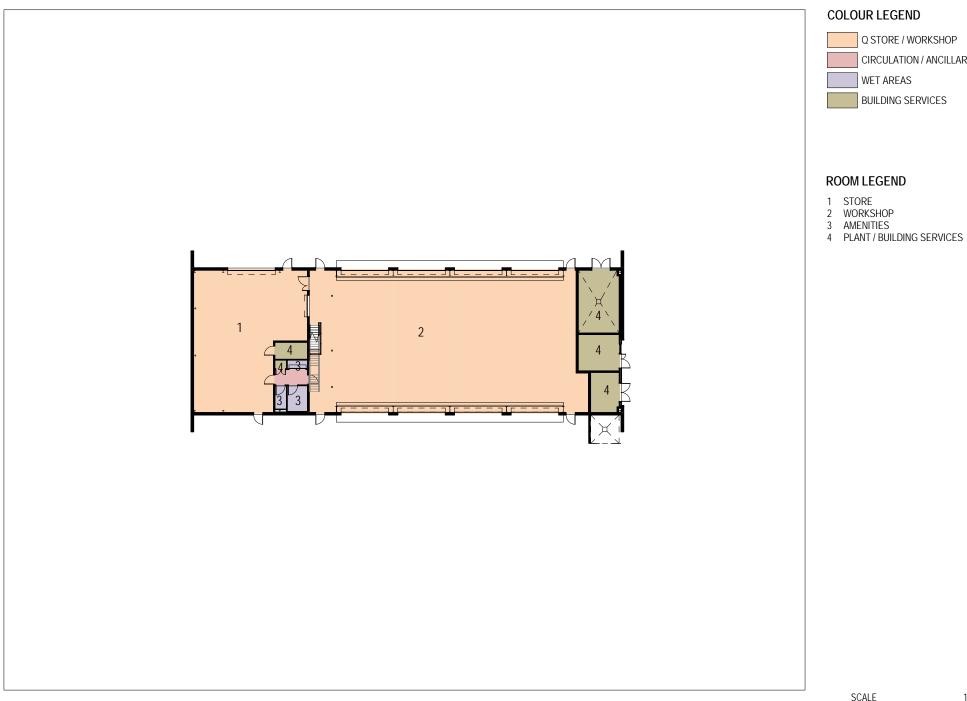




BUILDINGS SHOWN IN DETAIL

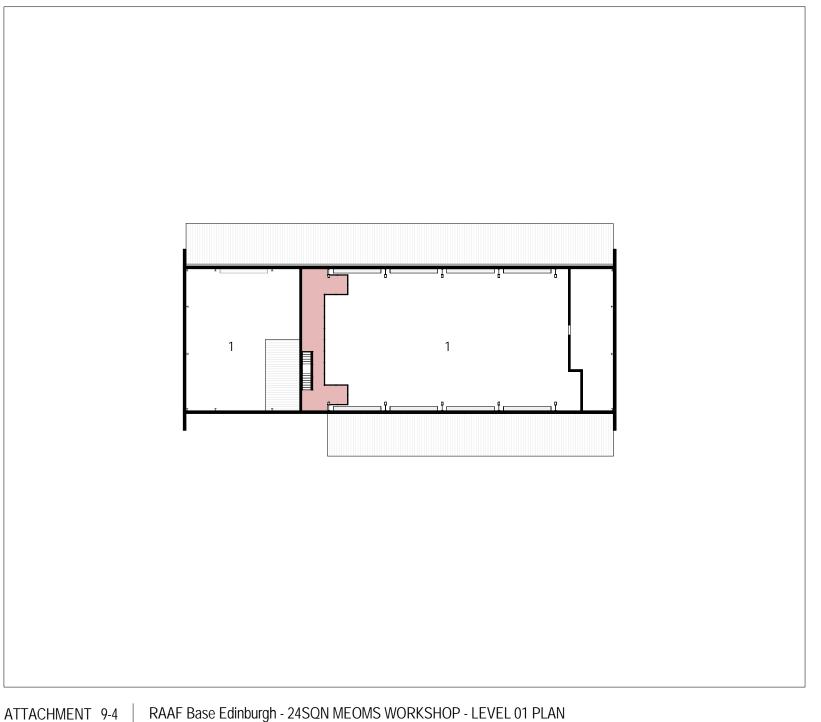
1 WORKSHOP





Q STORE / WORKSHOP CIRCULATION / ANCILLARY

WET AREAS BUILDING SERVICES



COLOUR LEGEND



ROOM LEGEND

1 VOID TO BELOW

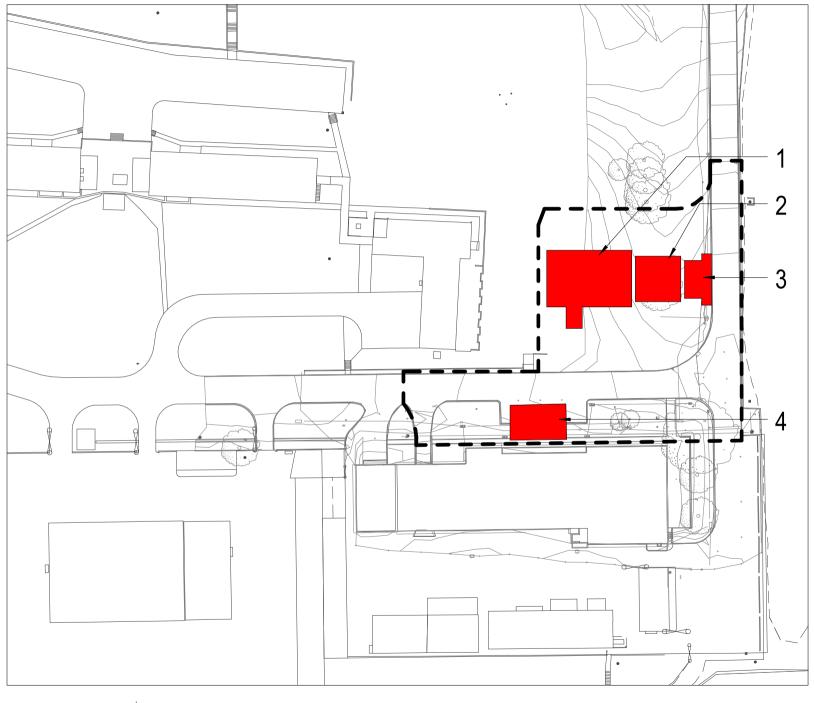




SCALE NTS

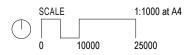
Attachment 10

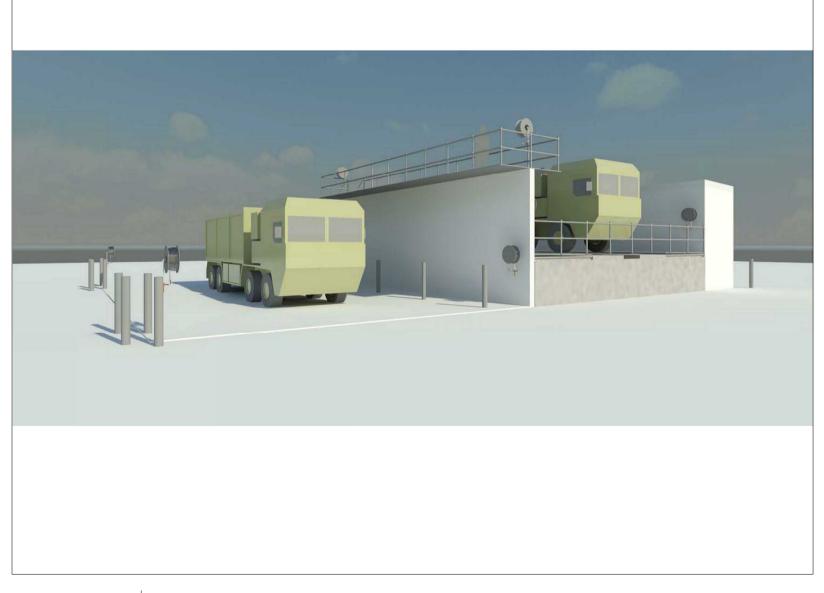
Campbell Barracks Facilities Floor Plans and Layouts



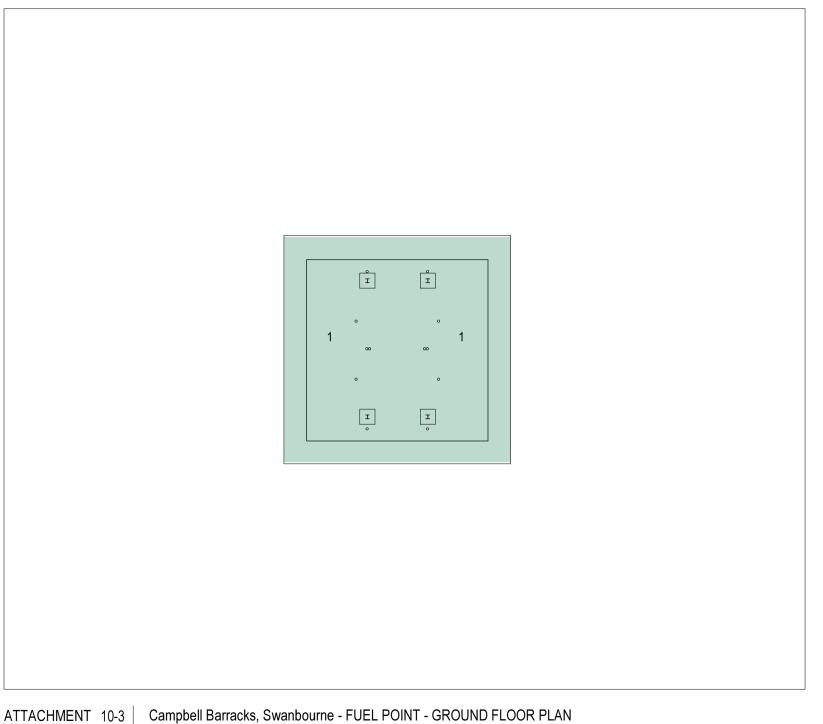
NEW INFRASTRUCTURE

- 1 WASHPOINT 2 FUEL POINT
- 3 WEIGHBRIDGE
- 4 LOADING RAMPS





NTS



COLOUR LEGEND

SHELTERS / BASE WIDE FACILITIES

ROOM LEGEND

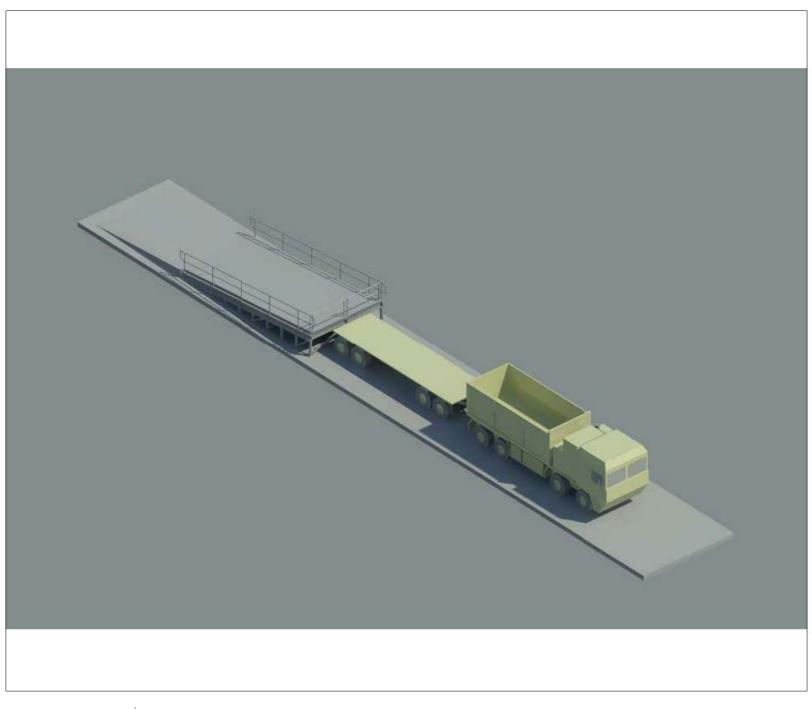
1 VEHICLE FUELING BAYS





SCALE

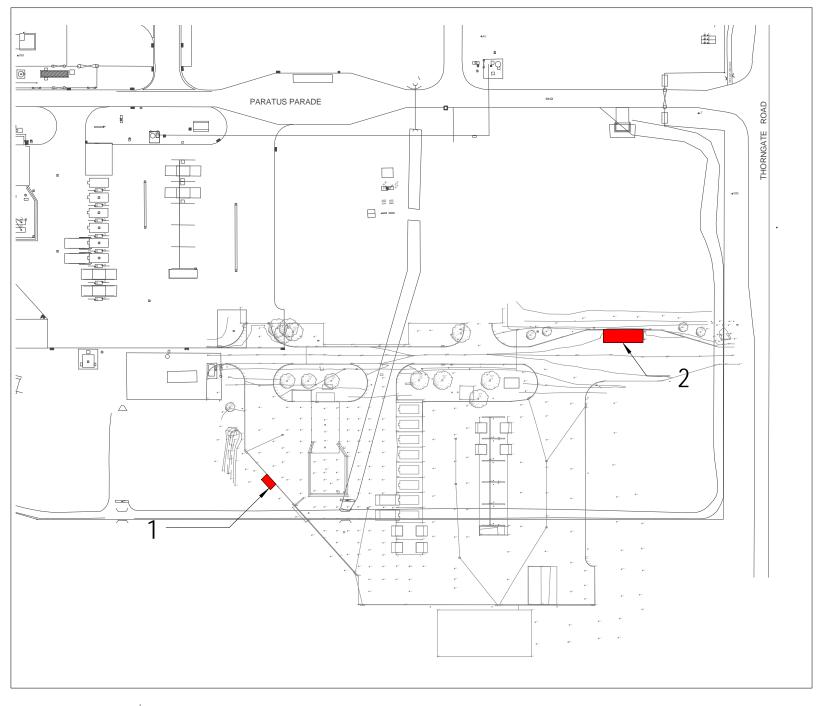
Land 121 - Unit Sustainment Facilities Project Submission 1



SCALE NTS

Attachment 11

Robertson Barracks Facilities Floor Plans and Layouts



SITE PLAN LEGEND

NEW INFRASTRUCTURE

2

ADBLUE WEIGHBRIDGE

