Australian Government

Department of Defence

UNITED STATES FORCE POSTURE INITIATIVES NORTHERN TERRITORY TRAINING AREAS AND RANGES UPGRADES

Robertson Barracks Close Training Area, Kangaroo Flats Training Area, Mount Bundey Training Area and Bradshaw Field Training Area, Northern Territory

STATEMENT OF EVIDENCE TO THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

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UNITED STATES FORCE POSTURE INITIATIVES NORTHERN TERRITORY TRAINING AREAS AND RANGES UPGRADES

1. The purpose of this Statement of Evidence is to provide information to the Australian public to comment on, and the Parliamentary Standing Committee on Public Works to enquire into, the works proposed under the United States Force Posture Initiatives Northern Territory Training Areas and Ranges Upgrades (the Project).

Purpose of the Works

Aim of the Project

2. The Project aims to provide essential upgrades to facilities and infrastructure at four existing Defence training areas in the Northern Territory to ensure the Australian Defence Force has reliable access to suitable military training areas and weapons ranges to meet military capability.

3. This investment directly supports implementation of the *2020 Force Structure Plan* initiative for enhancements to Defence training areas and facilities, live and simulated, to maintain its world-class training; and contributes to the enhanced development foreshadowed in the *2015 Developing Northern Australia* White Paper.

4. The proposed works will also enhance the levels of interoperability between the Australian Defence Force and our partners, including with the US military forces, through expanded cooperation and increased opportunities for combined training and exercises.

Location of the Project

5. The Project proposes to deliver works at:

a. Robertson Barracks Close Training Area, adjacent to Robertson Barracks, located approximately 20 kilometres east of Darwin

b. Kangaroo Flats Training Area, located approximately 64 kilometres south of Darwin

c. Mount Bundey Training Area, located approximately 134 kilometres southeast of Darwin

d. Bradshaw Field Training Area, located approximately 580 kilometres southwest of Darwin.

6. Attachment 1 depicts the locations of the proposed works.

Need for the Project

Strategic Considerations

7. The *White Paper on Developing Northern Australia*[1] outlined the Australian Government's commitment to a strengthened Defence presence in northern Australia.

8. The subsequent *2016 Defence White Paper* confirmed the importance of key enabling capabilities, including military bases and training areas, in supporting the effective operation of the Australian Defence Force's combat systems. It foreshadowed the upgrading of a number of training areas to support an expanded program of training, exercises and other activities with our international Defence partners.

9. The *2020 Force Structure Plan* reinforced the commitment to upgrade training areas, recognising their criticality in preparing the Australian Defence Force for the range of missions it will face now and in the future, and that cutting-edge technology will be needed to maintain its competitive advantage.

10. Australia and the United States have committed to a significant investment in infrastructure and facilities at existing Defence sites in the Northern Territory as part of the *United States Force Posture Initiatives* announced in 2011.

11. The approved United States Force Posture Initiatives RAAF Base Tindal Airfield Works Project[2] supports one of these initiatives: Enhanced Air Cooperation. Another initiative involves the rotation of a United States Marine Ground Task Force for around six months each year during the northern dry season, known as *Marine Rotational Force – Darwin*. These initiatives are key to broadening and deepening the alliance between Australia and the United States by providing new opportunities for combined training and improved interoperability between armed forces. The 2020 Australia-United States Ministerial Consultations identified that the relationship between Australia and the United States would continue to expand cooperation and increase opportunities for combined training and exercises.

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[1] Our North, Our Future: White Paper on Developing Northern Australia (2015).

[2] Parliamentary Standing Committee on Public Work's Report No 2/2020 dated 6 May 2020 refers.

Training Requirements

12. Land combat training can be broadly categorised as individual and small team weapons qualification/proficiency training and team-based field training. Weapons qualification and proficiency training is generally carried out regularly on permanent weapon ranges using live or training ammunition. Team-based field training is generally conducted in training areas that simulate actual combat conditions and may involve activities such as training for deployment into harsh environments, scenario based training, navigation exercises and driver training.

13. Team-based field training activities require supporting infrastructure such as roads and engineering services and a range of facilities providing camp accommodation, catering and medical support services for personnel operating in the field.

Existing Training Facilities

14. A detailed assessment of the capacity and effectiveness of the four locations to meet the training requirements outlined above concluded:

a. The current age and capacity of facilities and infrastructure limit the conduct of effective land combat training as well as the opportunities for joint and combined training of military forces between the Australian Defence Force and our partners.

b. The current facilities have limited capacity to respond to any increased demand for use of the training areas. They are unable to effectively cater for the recent evolution in Australian Defence Force training requirements and the introduction of new weapons, capabilities and technology.

c. Australian Defence Force elements located in the Northern Territory such as the Army's 1st Brigade and our partners including the annual Marine Rotational Force – Darwin, will continue to be the primary users of these training areas[3] and consideration of these requirements should drive the proposed solution.

[3] There is some occasional and minor use by Federal and State Government Departments and Agencies.

Key Objectives

15. The key objectives of the Project are to:

a. Provide flexible field training areas which are designed to enhance land training outcomes and enable training in line with the Australian Defence Force's evolving requirements including being adaptable to foreseeable developments in weapons, targetry technology and simulation.

b. Provide the necessary infrastructure to support the increased tempo and broader range of activities to support the shared use of the training areas by the Australian Defence Force and our partners.

c. Improve work, health and safety conditions.

d. Improve access to fit-for-purpose training areas and weapons ranges.

16. The proposed training area upgrades will therefore be designed to support developing the combat proficiency and preparedness of the Australian Defence Force and to increase opportunities for combined training with our partners. The proposed ranges will also be flexible to adapt to evolving training methods and weapons requirements.

Proposed Facilities Solution

Scope of Project Works

17. Defence conducted comprehensive master planning, site investigations, stakeholder consultation, whole-of-life cost analysis and design development during the planning phase of the Project to establish the capital facilities and infrastructure works required to address each capability need.

18. The proposed facilities and infrastructure fall into one of five functional groups:

a. **Administrative and Support Facilities and Infrastructure:** facilities to allow safe control of the weapons ranges, access and security functions; training camp accommodation and catering services; medical and logistics support; vehicle wash facilities; and civil, communications[4], electrical and hydraulic infrastructure.

[4] The proposed communications infrastructure will also include support for technology for the integration of simulation as part of training.

b. **Ranges:** permanent weapons ranges designed to provide safe and effective weapon training outcomes.

c. **Urban Operations Facilities:** various scales of urban operations training facilities designed to simulate realistic operational scenarios.

d. **Aviation Facilities:** infrastructure to enable the safe operation, including arming and refuelling of selected aircraft.

e. **Decommissioning and Remediation:** decommissioning and removing redundant weapons ranges and facilities, including remediating decommissioned sites.

19. The Detailed Business Case endorsed in late 2020 included a comprehensive analysis of the training requirements and how best to address these requirements across each of the four training areas. Generally, the existing weapons ranges were not able to adequately support the new training methodology or foreseeable developments in weapons, targetry technology or simulation. The proposed new weapons ranges, at the core of the Project, will be effective in delivering the required training outcomes and more able to meet future needs, and will include a new generation of targetry systems that are more capable and flexible than existing systems.

20. Defence considered a number of options to ensure the preferred solution offered value for money.

21. A 'Do Nothing' option was not a viable option as the existing facilities were generally obsolete and not fit for purpose, significantly constrained training outcomes and impacted on the Australian Defence Force's capability. This option also did not also meet Australia's commitments under the US Force Posture Agreement.

22. A 'Full Scope' option responding to all the identified requirements in the training needs analysis proposed a full suite of new or upgraded facilities and infrastructure at each of the four training areas. This option was significantly over available budget.

23. The preferred option will provide facilities and infrastructure to support priority Australian Defence Force training requirements, increase opportunities for combined training with our partners, including supporting the aims of the US Force Posture Initiatives. It will also provide the flexibility needed to meet the expected growing demands on the four training areas. By prioritising requirements and the proposed scope, the preferred option balances the needs of the Australian Defence Force in terms of capability and cost to optimise the value outcomes of the Project. The additional investment in facilities and

infrastructure proposed at Bradshaw Field Training Area will provide a unique and complex training environment and increase access to greater portions of the training area for the Australian Defence Force and its partners.

24. Separately to the Project, Defence is updating Estate Plans which may identify future investment required at each of the four sites.

25. There are 15 project elements proposed in the preferred option. A detailed description of these is provided below.

Robertson Barracks Close Training Area

26. **Project Element 1 - Administrative and Support Facilities and Infrastructure -** includes:

a. constructing a new range control precinct that includes facilities for range management staff and improved access and safety management arrangements;

b. expanding the existing vehicle wash point[5];

c. constructing a driver training area; and

d. upgrading some elements of the road network and the engineering services infrastructure.

27. **Project Element 2 – Ranges -** includes:

a. constructing a new weapons training simulation facility (to supplement the existing facility which is at capacity)[6];

b. constructing both a new indoor shooting range and a new outdoor shooting range designed for combat training; and

c. providing permanent power to an existing weapons range in the same area rather than relying on generator power.

28. **Project Element 3 - Urban Operations Facilities –** includes:

a. upgrading the existing Urban Operations Training Facility to provide a basic skills training facility for approximately 30 people; and

b. constructing a new outdoor range designed for urban assault training.

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[5] The existing vehicle wash point is located in Robertson Barracks in close proximity to the training area.

[6] The existing weapons training simulation facility is located in Robertson Barracks in close proximity to the training area.

29. **Project Element 4 - Decommissioning and Remediation** – includes:

a. decommissioning and removing redundant infrastructure, including three existing weapons ranges made obsolete by this project; and

b. remediating these sites including, as required, any contamination found.

30. Attachment 2 provides 3D renders of some elements of the proposed works at the Robertson Barracks Close Training Area.

Kangaroo Flats Training Area

31. **Project Element 5 - Administrative and Support Facilities and Infrastructure -** includes:

a. constructing a new range control precinct that includes facilities for range management staff and improved access and safety management arrangements;

b. constructing a basic medical facility and refurbishing the existing 250 person training camp and kitchen facility;

c. constructing a light vehicle rinse point; and

d. upgrading some elements of the road network and engineering services infrastructure, including provision of fixed High Voltage power to the camp and new Range Control facilities.

32. **Project Element 6 – Ranges -** includes:

a. constructing three new outdoor weapons ranges designed for various combat training activities and equipped with technically advanced targetry systems; and

b. relocating the existing demolitions range.

33. **Project Element 7 - Decommissioning and Remediation -** includes:

a. decommissioning and removing redundant infrastructure; and

b. 15 existing basic weapons ranges made obsolete by this project, and remediating these sites including, as required, any contamination found.

34. Attachment 3 provides 3D renders of some elements of the proposed works at the Kangaroo Flats Training Area.

Mount Bundey Training Area

35. **Project Element 8 - Administrative and Support Facilities and Infrastructure -** includes:

a. a new briefing area to the existing range control facilities;

b. minor upgrades to the existing 250 person tent camp facilities;

c. upgrading the existing vehicle wash point;

d. constructing a waste transfer point; and

e. upgrading some elements of the road network and engineering services infrastructure.

36. **Project Element 9 – Ranges -** includes a new outdoor range for weapon proficiency training on longer range weapons.

37. **Project Element 10 - Urban Operations Facilities** - includes:

a. upgrading the existing urban operations training facility to provide an urban area training facility for up to approximately 120 people; and

b. providing communications coverage to support simulation training.

38. **Project Element 11 - Aviation Facilities -** includes constructing a new arming and refuelling point for helicopters.

39. Attachment 4 provides 3D renders of some elements of the proposed works at the Mount Bundey Training Area.

Bradshaw Field Training Area

40. **Project Element 12 - Administrative and Support Facilities and Infrastructure –** includes:

a. upgrading the existing vehicle wash point;

b. expanding the current tent training camp and constructing a new training camp further into the training area for 250 personnel;

c. constructing a new medical facility with helicopter landing site; and

d. upgrading some of the existing road network and the engineering services infrastructure.

41. **Project Element 13 – Ranges -** includes constructing an outdoor shooting range designed for ensuring weapons are prepared prior to live fire field training.

42. **Project Element 14 - Urban Operations Facilities -** includes constructing a new large scale, complex urban operations training facility suitable for large scale combined training opportunities.

43. **Project Element 15 - Aviation Facilities –** includes:

a. extending the Nackeroo Airfield runway;

b. sealing the runway pavement; and

c. constructing an aircraft parking apron suitable for two C-17 aircraft and eight MV-22 Osprey aircraft.

44. Attachment 5 provides 3D renders of some elements of the proposed works at Bradshaw Field Training Area.

Planning and Design Concepts

45. The general philosophy for the design of the proposed works is based on:

a. providing cost-effective, functional, low maintenance, energy efficient design options compatible with proposed functions, remote locations and existing aesthetics;

b. adopting where practicable, conventional construction techniques and materials commonly used by the construction industry in the Northern Territory and consistent with those already used;

c. maximising the use of existing infrastructure and facilities;

d. using readily available and durable materials applying appropriate measures to reduce ongoing maintenance and achieve the proposed design life;

e. recognising and applying the site constraints, security requirements, and the planning guidance addressing the safe access and operation of each proposed range;

f. maximising local industry and Indigenous participation in the Project; and

g. providing flexible services and infrastructure to accommodate an appropriate level of growth.

Relevant Legislation, Codes and Standards

46. The following legislation, standards, codes and guidelines are applicable:

a. *Environmental Protection and Biodiversity Conservation Act 1999 (Cth)*

b. *Disability Discrimination Act 1992 (Cth)*

c. *Fair Work Act 2009 (Cth)*

d. *Work Health and Safety Act 2011 (Cth)*

e. *Fair Work (Building Industry) Act 2012 (Cth)*

f. *Building and Construction Industry (Improving Productivity) Act 2016 (Cth)*

g. National Construction Code - Building Code of Australia 2019

h. Defence Manual of Infrastructure Engineering - Electrical

i. Defence Smart Infrastructure Handbook

j. Defence Manual of Fire Protection Engineering

k. Defence Building Works Manual

l. Defence Contamination Management Manual

m. Defence Building Energy Performance Manual

n. Defence PFAS Construction and Maintenance Framework

o. Defence Estate Quality Management System

p. Defence Pollution Prevention Management Manual

q. Defence Explosive Regulations

r. Defence Airfield Pavement Maintenance Manual

s. Civil Aviation Safety Authority - Civil Aviation Advisory Publication 92-2(2) – Guidelines for the establishment of onshore Helicopter Landing Sites

t. United States United Facilities Criteria (UFC 3-260-01) Airfield and Heliport Planning and Design

u. United States United Facilities Criteria (UFC 3-260-02) Pavement Design for Airfields.

47. An accredited Building Certifier will certify compliance of the designs and the compliance of the completed works.

Land and Zoning

48. Site Selection Boards have completed assessments of the potential sites for the proposed facilities and infrastructure to ensure the proposed development at each Training Area is consistent with the Defence Estate Design and Use Principles and the planning guidance developed for each training area. The Board's considerations included assessing the suitability of alternative sites for each proposed function, the locations of related functions, access to services and infrastructure, and movement by vehicles and pedestrians.

Structure

49. The proposed new buildings will generally be steel-framed structures and have metal roofs. The Urban Operation Training Facilities will be basic facilities, generally of blockwork or concrete. Footing designs have considered local geotechnical conditions at each site and will generally be concrete slab on ground. The proposed structural designs will comply with the relevant Australian Standards and Codes (additional information in 'Climate Considerations' section below).

Civil Works

50. Proposed civil works include roads, hardstands and building pads at each site. Detailed geotechnical investigations have been undertaken to inform these designs.

51. The design for the proposed airfield works at Bradshaw Field Training Area has considered the existing conditions, the underlying geotechnical conditions and all relevant design standards. The proposed airfield pavement will predominantly be spray sealed pavement with the design dictated by the strength of the subgrade, aircraft loading and the frequency of aircraft movements.

Mechanical Services

52. Mechanical services have been designed according to the function and needs of each facility. The proposed services will meet specific user needs, relevant ventilation, thermal comfort and air quality requirements and the mandatory requirements of the National Construction Code - Building Code of Australia 2019 and applicable Australian Standards.

Hydraulic Services

53. The scope of the proposed hydraulic services includes water supplies for domestic and fire-fighting purposes, sewerage services and stormwater drainage. These services will comply with the requirements of the National Construction Code - Building Code of Australia 2019, the relevant Australian Standards and the applicable standards of the Northern Territory's regulatory authorities.

Electrical Services

54. Investigations during the planning phase have confirmed the capacity of existing electrical services networks and identified the requirements for providing power to the proposed facilities.

55. Lighting, power and lightning protection will be provided in accordance with the applicable Australian Standards and codes of practice and the requirements of Defence's Manual of Infrastructure Engineering - Electrical. New electrical infrastructure and switchboards will have spare capacity to allow for future growth and sub-metering will be provided to each major new building. Building management systems will monitor these meters, supporting Defence's active energy management program.

56. Diesel generators will provide power to facilities at the Kangaroo Flats, Mount Bundey and Bradshaw Field training areas where it is not practical or cost-effective to connect to fixed electrical networks.

Communications Services

57. Communications infrastructure will be upgraded to improve the current connectivity available to deployed forces, support simulation training and to improve security and safety. The increased coverage will provide benefits to local communities in some areas around the Kangaroo Flats and Bradshaw Field training areas.

Fire Protection

58. All fire protection requirements will comply with the requirements of the National Construction Code - Building Code of Australia, Defence's Manual of Fire Protection Engineering and other applicable codes and standards. Asset classification and criticality assessments have been completed for each proposed facility to determine the fire detection and protection systems that meet the requirements of the Defence's Manual of Fire Protection Engineering.

59. All four training areas are designated bushfire prone areas. Bushfire protection is required for several proposed buildings, including some accommodation buildings. Asset protection zones, burn programs, building and landscape design and access and egress measures have been adopted to meet the bushfire requirements in Defence's Manual of Fire Protection Engineering and the applicable Australian Standards.

Climate Considerations

60. The proposed works will be designed and constructed with due consideration for the nature of the Northern Territory environment and climate. As the frequency of use of the proposed facilities will lessen during the wet season, they will be designed to minimise maintenance requirements.

61. Precinct planning will minimise heat gain by optimising orientation and maximising cross-ventilation, focusing on passive tropical design principles rather than building sealing and air-conditioning.

62. Allowance has also been made for the effects of climate change in the sizing and selection of systems for the buildings that will be air conditioned. While the new training camp accommodation facilities will only have fans, the future installation of air conditioning has been considered to address the potential for temperatures to increase because of climate change.

63. Building floor levels will be above the 1% Annual Exceedance Probability for rainfall events. The proposed floor levels for key infrastructure, such as new electrical substations and communications rooms, will consider potential flooding and inundation associated with climate change.

Security Measures

64. Defence Security Authorities have been consulted to ensure the proposed facilities designs comply with the Defence Security Principles Framework. Proposed new security services will be compatible with existing security systems.

Acoustics

65. The new facilities will comply with the National Construction Code - Building Code of Australia and Australian Standards for noise and acoustics in working and living accommodation. Defence's security and users' functional requirements have been considered in the design of the buildings to ensure acoustic separation requirements are met. Proposed structures on or near the weapons ranges have been designed to achieve the required noise attenuation rating from the weapon firing.

Work Health and Safety

66. The Project will comply with the *Work Health and Safety (WHS) Act 2011 (Cth)*, Work Health and Safety (Commonwealth Employment – National Standards) Regulations, and relevant Defence policies. In accordance with Section 43 (4) of the *Building and Construction Industry (Improving Productivity) Act 2016 (Cth)*, project 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.

67. Safety aspects of the Project were assessed during the design development process and documented in a Safety in Design Report. The Managing Contractor will develop a Work Health Safety Plan for each site before construction commences. This plan will address any Federal or Territory health directives and any requirements to appropriately secure all construction sites to prevent any unauthorised personnel entering during the construction period.

Materials and Furnishings

68. Materials will be selected based on suitability for purpose, durability, low maintenance and compliance with relevant Codes and Standards. The ability for the local market to supply materials has also been considered during the design development process to maximise local supply opportunities where value for money is evident.

69. The frequency of use of the proposed facilities will lessen during the wet season. They will be designed to minimise maintenance requirements. All external materials will be selected for their resilience to the harsh local environment, including seasonal high temperatures and humidity. Internal walls in the new facilities will generally be non-load bearing, lined with plasterboard to provide flexibility for accommodating changing functional requirements.

Landscaping

70. The proposed landscape works will be minimal and complement the character of each site. Design will focus on being functional, stable and non-eroding, low maintenance and water sensitive, and will use suitable native plants.

Childcare Provisions

71. No childcare facilities are proposed in the Project.

Provisions for People with Disabilities

72. Access for people with disabilities will be provided in accordance with the Building Code of Australia, Australian Standard AS 1428 – 2010: Design for Access and Mobility, the *Disability Discrimination Act 1992* and the Defence Policy 'Disabled Access and other Facilities for Disabled Persons'.

73. Access for people with disabilities is not required to some proposed facilities, which are exempt under section D3.4 of the Building Code of Australia, as access for people with disabilities would be inappropriate, because of the particular purpose of the area.

Environmental Sustainability

74. Defence is committed to ecologically sustainable development and reducing greenhouse gas emissions. The Project has adopted cost effective measures as a key objective in the design and development of the proposed works. The proposed measures include the following:

a. **Meeting Energy Targets.** Energy performance targets will comply with the Defence Building Energy Performance Manual, and the Defence Smart Infrastructure Handbook where applicable.

b. **Reducing Energy Use.** Precinct planning will minimise heat gain by optimising building orientation, insulation, solar access, solar control and cross-ventilation, focusing on passive cooling design principles rather than building sealing and air-conditioning. Other measures proposed to reduce energy include utilising energy efficient heating, ventilation and air-conditioning systems, provision of energy efficient LED lighting and enhanced control strategies and installing energy management systems.

c. **Reducing Water Use.** Measures proposed to reduce water use include specifying water efficient equipment, fixtures and fittings; where landscaping works are proposed, adopting water sensitive urban design principles; and selecting native, low-water usage plant species.

d. **Improving Indoor Environments.** Measures proposed include improving natural light in occupied spaces; providing shading for privacy and glare control; optimising building orientation; and using low volatile organic compound paints, carpets, adhesives and low emission wood products.

e. **Installing Metering.** Electrical and hydraulic services will be metered in accordance with the requirements of the Defence National Sub-Meter Program, Manual of Infrastructure Engineering - Electrical and the National Construction Code. Electricity meters will interface to the local (available) site-monitoring system.

f. **Minimising Waste.** Measures proposed to minimise waste will follow the requirements under the Defence Smart Infrastructure Handbook which requires that all designs consider the minimisation of waste in the planning, design, construction and operation of the Project.

g. **Re-using Materials.** On-site material will be re-used where practical to reduce the need to import and the need to dispose materials off-site. Where land clearing is required, stockpiled topsoil will be used to reinstate sites when the site works are complete.

Potential Impacts

75. A comprehensive Environmental Report has been completed for the Project. This report includes rigorous assessments to identify potential environmental and local community impacts and propose suitable mitigation measures. These include:

a. **Visual Impacts.** The assessments conducted did not identify any visual impacts arising from the Project. Proposed new built infrastructure and ranges are not located within areas with known heritage site lines or visual landscapes.

b. **Noise Impacts.** The Project has identified sources of noise impacts to be aircraft flightpaths, weapons firing and plant/generator equipment. Desktop noise assessments have been completed. Once the works are delivered, confirmatory noise assessments will be undertaken to validate the assessments and treatments provided to minimise noise impacts on users and surrounding areas.

c. **Environmental Impacts:**

(1) **Fauna and Flora.** Threatened species/communities and migratory species listed under Commonwealth and Northern Territory legislation have been assessed as a medium risk for the Project. While the Project is unlikely to significantly impact on any listed threatened species/communities and migratory species, 'no-go' areas will be established and highlighted in site inductions to minimise residual impacts to flora and fauna in the local area. Site habitat removal requirements will be minimised where possible and demarcated by temporary fencing to prevent accidental impacts to surrounding vegetation and habitats.

Pre-clearance fauna surveys will identify native fauna and encourage natural dispersal before any site clearance is undertaken with salvage and translocation conducted as a last resort prior to site development. Preliminary management and mitigation measures have been developed to support the avoidance of potential impacts to threatened flora and fauna and communities.

Further assessments, including targeted threatened flora and fauna surveys, are being undertaken to refine management and mitigation measures to further minimise impacts to threatened species/communities and migratory species, through micro-siting of project elements.

(2) **Contamination and hazardous materials.** The contamination and hazardous materials identified will be managed through standard controls in a Construction Environmental Management Plan. Appropriate control measures to manage contamination or hazardous materials will be implemented, in accordance with Defence's Pollution Prevention Management Manual and Defence Contamination Management Manual.

Of note, significant metal contamination (lead, copper and zinc) has been identified in surface soil in parts of select small arm ranges that are scheduled to be decommissioned. A specific remediation action plan is required to mitigate risk through treatment and appropriate reuse of the contaminated soil during decommissioning works. This aims to reduce the need for off-site disposal which is limited in the Northern Territory.

During remediation activities, the Managing Contractor will be recording and tracking all contamination encountered to ensure it is appropriately identified, managed, treated or disposed of by a licensed contractor.

(3) **Biosecurity and Overabundant Native Species**. Significant risk to Defence capability and the environment from biosecurity and overabundant native species has not yet been identified on the Project.

The main risk identified is control of weed species during construction works which can be managed through a construction environmental management plan. Standard controls include purchasing all imported materials from a reputable supplier who can supply materials that are weed, pathogen and contaminant free.

Plant and equipment will be inspected and washed down if required before entering and leaving work sites to further reduce potentially introducing or spreading pest weed species during construction.

(4) **Soils.** Where possible, there has been consideration of the reuse of contaminated and excavated soil within the design to minimise waste generation and the need for off-site disposal. In addition, bulk earthwork activities will be scheduled outside the wet season to minimise the levels of surface water and associated potential impacts of erosion. Where clearing is required, topsoil will be set aside to reinstate after works are complete.

(5) **Per- and Poly-fluoroalkyl Substances Contamination.** Low level per and poly-fluoroalkyl substances (PFAS) contaminated soils, wastewater, surface water and groundwater may be encountered during construction at Robertson Barracks Close Training Area.

(6) PFAS risks can be managed through a standard construction environmental management plan that is compliant with the Defence PFAS Construction and Maintenance Framework. PFAS impacted soil can be reused within the

project site of origin, or elsewhere on the property (subject to Defence approval) to reduce the need for off-site disposal, which is limited in the Northern Territory.

d. **Heritage Impacts:**

(1) **Natural Heritage.** The Bradshaw Field Training Area and the Mount Bundey Training Area are cited on the Commonwealth Heritage List for their natural heritage values. While the proposed works may have little or no impact based on the proposed construction footprints, further on the ground investigations are being undertaken at Bradshaw Field Training Area to assess potential impacts to natural heritage values, and to inform mitigation measures such as micro-siting design elements.

(2) **Indigenous Heritage.** Documented Indigenous heritage values also occur at all four training areas. Bradshaw Field Training Area is subject to an Indigenous Land Use Agreement. Further investigations and assessment, as well as consultation with the Traditional Owners, are being conducted to finalise the management and mitigation measures required to protect these values during the construction phase of the Project. At a minimum, these measures will include avoiding heritage features and providing protective fencing if activities occur close to these features. Site inductions for construction workers will also be conducted to communicate relevant heritage values of the training area.

(3) **Historic Heritage.** Further investigations of documented historic heritage sites and values at the Kangaroo Flats Training Area and the Bradshaw Field Training Area are being conducted. While assessed as low risk, further analysis will ensure appropriate management and mitigation measures can be implemented to avoid any potential impacts.

e. **Traffic, Transportation and Road Impacts.** The Managing Contractor will be responsible for preparing traffic management plans to minimize potential traffic disruption and impacts upon the local community. The Managing Contractor will also undertake pro-active community engagement including the provision of project contact details (email and phone) to the general public.

f. **Existing Local Facilities.** The assessments conducted did not identify any impacts from the Project on local existing facilities.

76. The Environmental Report has not identified significant impact from the Project on existing environmental and heritage values that would require a referral to the Minister of Environment and Energy under the *Environmental Protection and Biodiversity Conservation Act 1999 (Cth).*

Related Projects

77. Two previously approved projects involve constructing a new 25/100 metre weapon range and the construction of a perimeter fence and remediation of some existing contaminated material stockpiles in the Robertson Barracks Close Training Area. The Robertson Barracks 25-Metre/100-Metre Open Range Project was notified to the PWC on 19 June 2017 and the Robertson Barracks Close Training Area Post Acquisition Project was notified to the PWC on 04 September 2018. These earlier works are expected to be completed before the Project commences construction.

78. The Integrated Land Targetry Systems Program is taking a programmatic approach to the acquisition and sustainment of land targetry systems. The program will procure and deliver the required certified targetry for the proposed ranges in the Project.

79. Other Defence capability projects replacing or upgrading a range of Defence's current weapons systems have been considered during the design of the ranges proposed under the Project. The potential impact of the future Armed Reconnaissance Helicopter Replacement Project on the siting and design of new facilities at Robertson Close Training Area has been considered by the designers.

Consultation with Key Stakeholders

80. Defence has developed a community consultation and communications strategy to engage local residents and other interested stakeholders, an opportunity to provide input into, or raise concerns relating to the proposed works.

81. Defence has engaged with a variety of internal and external stakeholders during project development phase. In addition, further consultation will be conducted to support the Parliamentary Standing Committee on Public Works' inquiry into the proposed works. External stakeholders include:

a. the Federal Member for Solomon, Mr Luke Gosling OAM MP

b. the Federal Member for Lingiari, Hon Warren Snowdon MP

c. the Northern Territory Members for

(1) Nelson: Mr Gerard Maley MLA

(2) Daly: Mr Ian Sloan MLA

(3) Arafura: Mr Lawrence Costa MLA

(4) Gwoja: Hon Chanston Paech MLA.

d. the Department of Prime Minister and Cabinet

e. the following Northern Territory Government authorities:

(1) Department of the Chief Minister and Cabinet

(2) Department of Infrastructure, Planning and Logistics

(3) Department of Industry, Tourism and Trade.

f. local Government representatives including the Mayor, Aldermen, the Chief Executive Officer and senior officers

g. Aviation industry regulatory authorities including:

(1) Air Services Australia

(2) Civil Aviation Safety Authority.

h. Northern Land Council

i. Aboriginal Areas Protection Authority

j. local Indigenous groups (through Aboriginal Areas Protection Authority)

k. Power and Water Corporation

l. Territory and local industry and business associations including:

(1) Master Builders Association

(2) Northern Territory Chamber of Commerce

(3) Industry Capability Network (Northern Territory)

(4) Northern Territory Indigenous Business Network.

m. local community groups.

Cost Effectiveness and Public Value

Project Costs

82. The estimated total capital out-turned cost of the Project is $747.0 million including Defence contingency. This estimate excludes Goods and Services Tax. It includes project management, contract management and design fees; other professional services fees related to the design or construction activities; construction costs; information and communications technology; furniture, fittings and equipment costs, and provisions for risk and escalation.

83. Future sustainment costs are expected to increase by $21.2 million annually because of the proposed works due to the costs of additional maintenance, cleaning and utilities services that will be required in the proposed new and upgraded facilities, infrastructure and weapon range targetry.

Project Delivery System

84. Defence proposes to deliver the project works using the Managing Contractor form of contract. A Managing Contractor will be appointed to complete design development, procure trade contractors, and manage the construction of the works and a Project Manager and Contract Administrator will be appointed to manage the delivery phase of the Project.

85. The Managing Contractor form of delivery provides the Commonwealth with buildability input into the design and ensures commonality of the designs for the proposed facilities at each site. This form of contract promotes opportunities for small to medium enterprises by sub-contracting design and construction trade packages.

Construction Program

86. Subject to Parliamentary approval, most design activities are expected to be completed by late-2021, with construction-related activities expected to commence in late-2021 and be completed in mid-2026.

Public Value

87. Defence has comprehensively assessed public value, opportunities and benefit to the community as a result of the proposed works:

a. **Meeting Capability Needs.** The upgraded training facilities being delivered by the Project will ensure the Australian Defence Force maintains its capability edge and will meet the commitment made as part of the Force Posture Agreement with the United States.

b. **Employment Opportunities**. The Project will employ a diverse range of skilled consultants, contractors and construction workers, and is expected to include opportunities for up-skilling and job training to improve individual skills and employability on future infrastructure projects.

c. **Economic Impacts.** Defence and the Managing Contractor will actively promote opportunities for small to medium enterprises through construction sub-contractor packages. The Managing Contractor will be required to deliver all works in accordance with, but not limited to, National Construction Code - Building Code of Australia guidelines, relevant Australian Standards, relevant Defence Policy, and Workplace Health and Safety legislation.

d. **Local Industry and Indigenous Business Involvement Opportunities.** Defence and the Managing Contractor will actively promote opportunities for small to medium local enterprises through construction trade packages.

There will be opportunities for Indigenous business involvement in the Project in accordance with the Indigenous Procurement Policy.

Works to be undertaken must comply with Government's "Defence Policy for Industry Participation" which requires successful tenderers to provide detailed commitments on how they will utilise and develop Australian industry. These commitments will become contract deliverables and successful tenders will be required to report on their performance against them. While the policy does not mandate or preference local suppliers, there are opportunities to engage local industry associated with the project sites.

e. **Improved 4G communications** in some areas around Kangaroo Flats Training Area along Litchfield Park Road and areas around Bradshaw Field Training Area along the Victoria Highway.

Revenue

88. No revenue is expected to be derived from the Project.

Attachments

1. **Location Map**

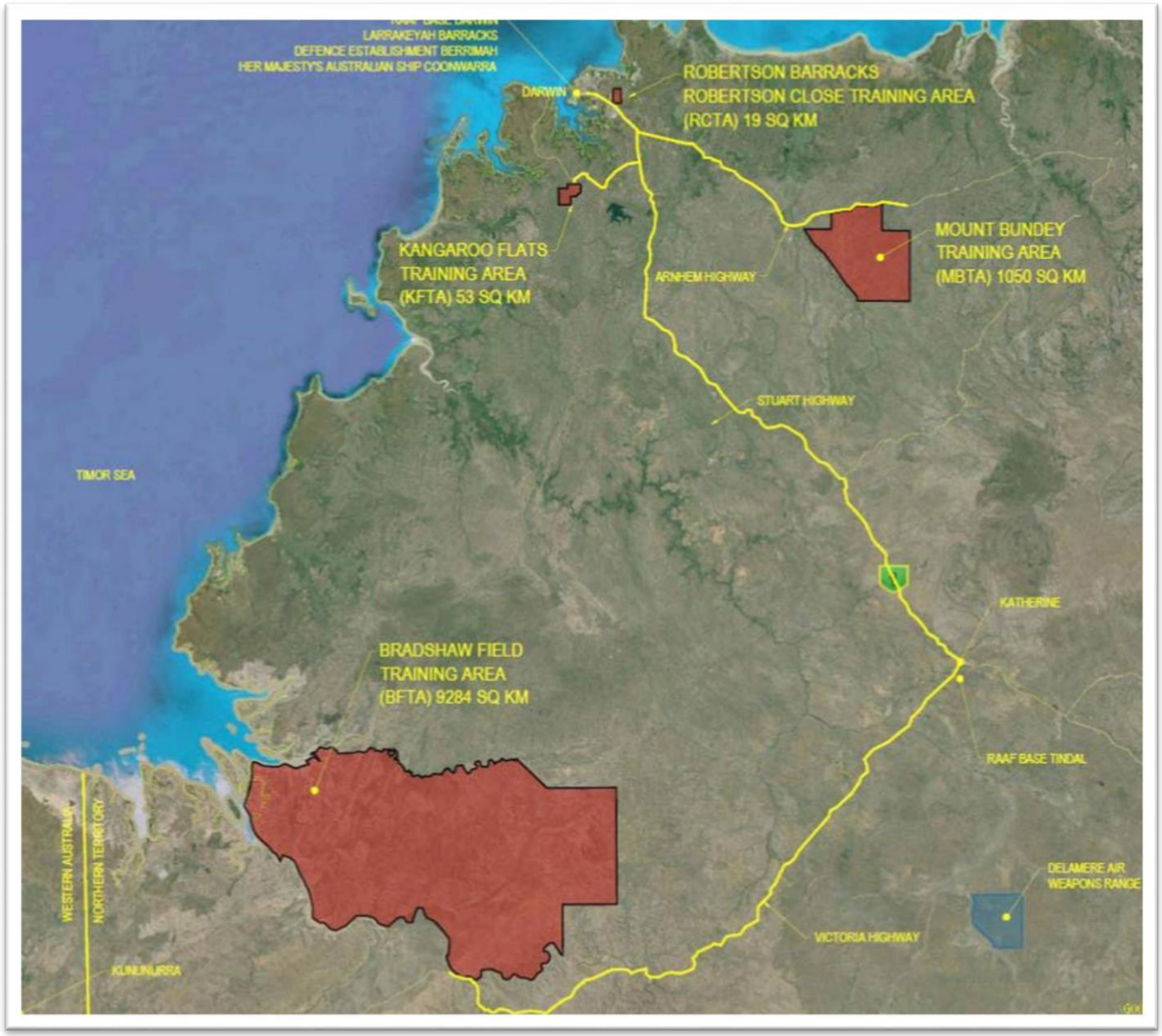
2. **Robertson Close Training Area** –
   a. Project Element 1 Range Control Precinct
   b. Project Element 1 Wash Point
   c. Project Element 2 360° Combat Shooting Range
   d. Project Element 3 Urban Operations Training Facility

3. **Kangaroo Flats Training Area –**
   a. Project Element 5 Range Control Precinct
   b. Project Element 6 Combat Marksman Range (24 Lanes)

4. **Mount Bundey Training Area –**
   a. Project Element 10 Urban Operations Training Facility (upgrade works)
   b. Project Element 11 Forward Arming and Refuelling Point

5. **Bradshaw Field Training Area**
   a. Project Element 12 Training Facility Maintenance Area
   b. Project Element 12 Medical Centre

Attachment 1 – Location Map



Attachment 2 – Robertson Close Training Area

a. Project Element 1 Range Control Precinct

b. Project Element 1 Wash Point

c. Project Element 2 360° Combat Shooting Range

d. Project Element 3 Urban Operations Training Facility

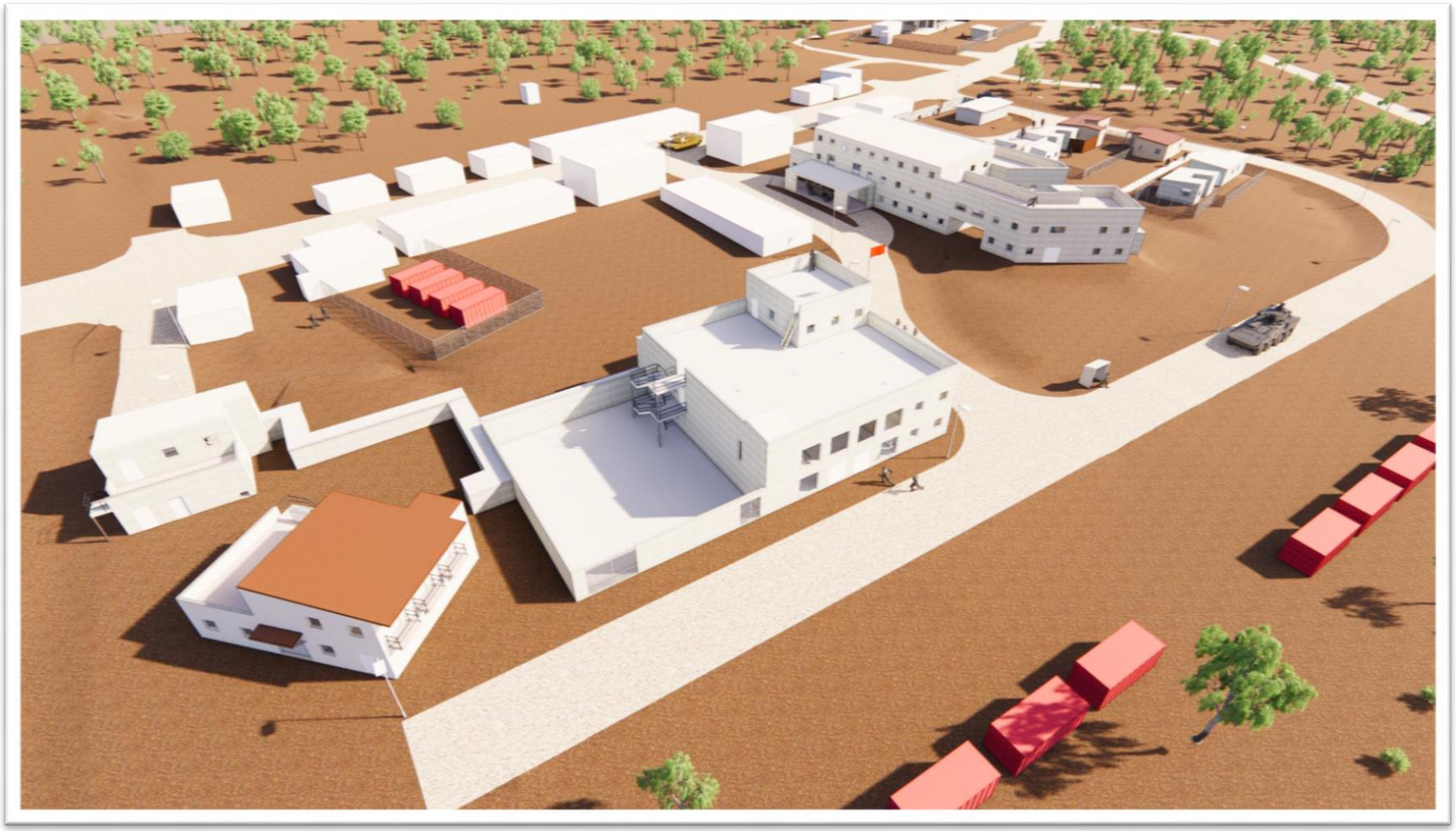
Attachment 3 – Kangaroo Flats Training Area

a. Project Element 5 Range Control Precinct

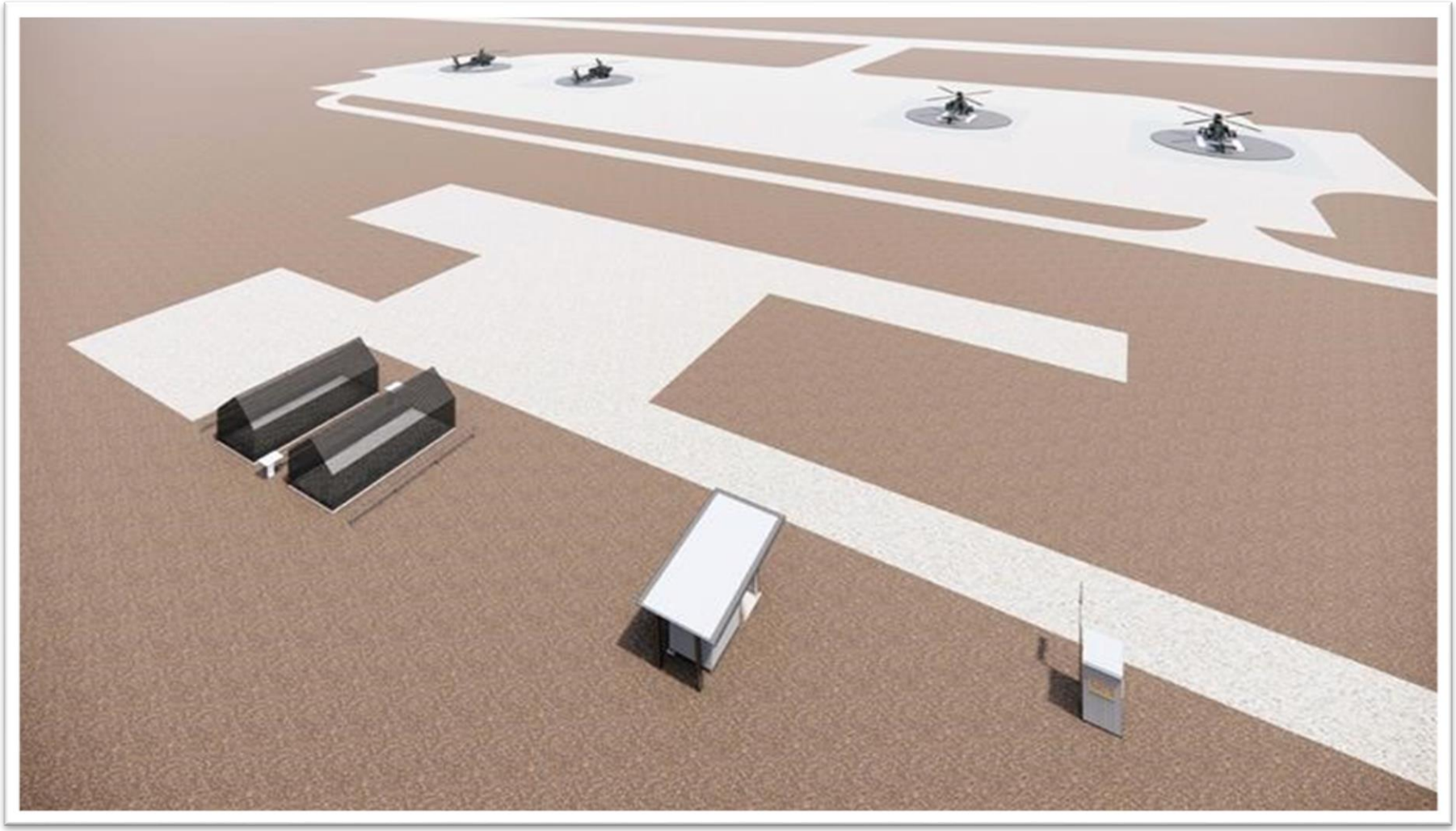
b. Project Element 6 Combat Marksman Range (24 Lanes)

Attachment 4 – Mount Bundey Training Area

a. Project Element 10 Urban Operations Training Facility (upgrade works)



b. Project Element 11 Forward Arming and Refuelling Point



Attachment 5 – Bradshaw Field Training Area

a. Project Element 12 Training Facility Maintenance Area

b. Project Element 12 Medical Centre