



**Australian Government**

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**Defence**

**EXPLOSIVE ORDNANCE FACILITIES  
NORTHERN NEW SOUTH WALES  
REDEVELOPMENT PROJECT**

Defence Establishment Orchard Hills, New South Wales

**STATEMENT OF EVIDENCE  
TO THE  
PARLIAMENTARY STANDING COMMITTEE  
ON PUBLIC WORKS**

June 2024

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# **Explosive Ordnance Facilities Northern New South Wales Redevelopment Project**

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 proposed works under Explosive Ordnance Facilities Northern New South Wales Redevelopment Project (the Project).

## **Executive Summary**

2. The Project will be delivered at the Defence Establishment Orchard Hills, New South Wales, and will provide a base entrance upgrade, infrastructure and services upgrades, new working and living-in accommodation, and new training and physical fitness facilities.

3. The Project's estimated total capital out turned cost is \$359.3 million (excluding Goods and Services Tax). The cost estimate includes project management and design fees, construction, information and communications technology, furniture, fittings, equipment, contingencies, and a provision for escalation. As a result, there will be ongoing operating and sustainment costs. No revenue is expected to be generated by the works.

4. The Project will promote opportunities for small and medium local construction packages, providing employment opportunities in the Western Sydney region. There will also be opportunities for Indigenous businesses to be involved in the Project, in accordance with the Government's Indigenous Procurement Policy.

5. All works will be designed and constructed in accordance with relevant legislation, standards, codes, guidelines and Defence policies. Accredited building certifiers will certify the compliance of the design and completed works.

6. Detailed environmental and heritage investigations have been completed and the Project will not have a significant impact on existing environmental and heritage values. The Project has been designed to minimise ecological impacts during both construction activities and ongoing operations. Several mitigation and management measures will be incorporated accordingly, including the disposal of asbestos contaminated material.

## **Purpose of the Works**

### Aim of the Project

7. The aim of the Project is to refurbish, upgrade and/or replace deficient facilities and infrastructure at the Defence Establishment Orchard Hills. These works will deliver

enhanced resilience and redundancy to the base, which supports Defence's strategic objectives.

### Location of the Project

The Project will be delivered at the Defence Establishment Orchard Hills, which is located approximately nine kilometres south of Penrith, New South Wales. **Attachment 1** depicts the location of the proposed works.

### Need for the Project

8. The Defence Establishment Orchard Hills provides operational, explosive ordnance storage, maintenance, training, administrative, support, accommodation and recreational facilities.

## **Proposed Facilities Solution**

9. Defence has undertaken master planning, site investigations, stakeholder consultation, whole-of-life cost analysis and design development to establish the capital facilities and infrastructure works required for the Project.

10. The Defence Establishment Orchard Hills 2018 Estate Base Plan identified the need to undertake a combination of new and upgrade works to consolidate base support functions into administration precincts and maximise resource efficiency to optimise base operating costs.

11. The proposed works under the Project are as follows:

- a. new and upgraded working facilities associated with the procurement, storage, distribution and maintenance of explosive ordnance, and enabling administration support activities;
- b. new and upgraded training facilities associated with the Defence Explosive Ordnance Training School;
- c. new living-in accommodation;
- d. common facilities, including a small gymnasium for permanent staff and trainees;
- e. an upgraded base entry and perimeter security improvements; and
- f. upgraded utilities and infrastructure, including water, power and sewage, to address future capacity requirements.

### Options Considered

12. Defence has developed the following four options:
- a. **Option 1 – Do nothing.** This option would not provide any investment in facilities and infrastructure. The degrading condition of the existing facilities and infrastructure will affect the activities conducted at the establishment, including unplanned interruptions, repairs and ongoing maintenance of ageing facilities, and lost productivity. This option does not meet the minimum viable capability required to support ongoing operations and activities on the base, and is therefore not recommended.
  - b. **Option 2 – In-Budget.** This option would deliver minimal high priority scope that is critical to support base operations and activities within the Project's original budget. This option does not meet the minimum viable capability required to support ongoing operations and activities on the base, and is therefore not recommended.
  - c. **Option 3 – Minimal Viable Product.** This option would deliver all high priority scope elements to meet the minimum viable capability required to support ongoing operations and activities on the base, and is therefore recommended.
  - d. **Option 4 – Full scope.** This option would deliver all scope elements included in Option 3, as well as an Ammunition Processing Building, additional living-in accommodation, and upgraded infrastructure at the Defence Explosive Ordnance Depot Myambat, New South Wales. This option exceeds the minimum viable capability required to support ongoing operations and activities, as well as the Project's budget, and is therefore not recommended.
13. **Preferred option:** Option 3 (Minimal Viable Product) is the preferred option as it meets the minimum viable capability required to support ongoing operations and activities at the Defence Establishment Orchard Hills, is within the Project's approved budget and represents the best value for money solution for the Commonwealth.

### Scope of Project Works for the Preferred Option

14. The preferred option includes the following work elements:
- a. Work Element 1. Upgrade and remediation of site infrastructure and engineering services, including potable and fire-water networks, electrical systems, information and communication technology and wastewater system.

- b. Work Element 2. New and upgraded administration and working accommodation, and multi-purpose logistics facilities.
- c. Work Element 3. New and upgraded instructional and working facilities for the Defence Explosive Ordnance Training School.
- d. Work Element 4. New Living-In Accommodation.
- e. Work Element 5. New working accommodation for Defence and Contractor personnel currently accommodated in disaggregated facilities at the Defence Establishment Orchard Hills and in leased accommodation in Penrith.
- f. Work Element 6. New and upgraded health and wellbeing facilities, including a small gymnasium and a multi-use sports court.
- g. Work Element 7. Upgraded base entry and security, including reconfiguration of the base entry, perimeter fencing, lighting and Closed Circuit Television.
- h. Work Element 8. A new multi-user Cadet facility to support existing Army and Navy Cadet Units displaced by other work elements, and to relocate an existing Air Force Cadet Unit from off-base to on-base.
- i. Work Element 9. Demolition of surplus/obsolete facilities that have reached their end-of-life.

#### Planning and Design Concepts

- 15. The 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 and existing aesthetics;
  - b. gaining efficiencies by planning for shared uses where possible;
  - c. adopting, where possible, conventional construction techniques and materials commonly used by the construction industry and consistent with those already used;
  - d. applying appropriate durability measures to reduce ongoing maintenance and achieve the proposed design life;
  - e. working within site constraints, security requirements and the approved estate base plan;
  - f. considering the functional relationships of the proposed facilities to existing facilities; and
  - g. providing flexible services and infrastructure that can accommodate future growth and capability evolution.

### Relevant Legislation, Codes and Standards

16. The following legislation, standards, codes and guidelines are applicable:
- a. *Environmental Protection and Biodiversity Conservation Act 1999 (Cth)*;
  - b. *Fair Work Act 2009 (Cth)*;
  - c. *Fair Work (Building Industry) Act 2012 (Cth)*;
  - d. *Work Health and Safety Act 2011 (Cth)*;
  - e. *Disability Discrimination Act 1992 (Cth)*;
  - f. *Building and Construction Industry Improvement Amendment (Transition to Fair Work Act) Act 2012 (Cth)*;
  - g. National Construction Code - Building Code of Australia;
  - h. Safe Work Australia Codes of Practice;
  - i. Estate Resources Management System;
  - j. Defence Smart Infrastructure Manual;
  - k. Defence Estate Strategy Implementation Plan 2016-2036;
  - l. Defence Manual of Infrastructure Engineering – Electrical;
  - m. Defence Manual of Fire Protection Engineering;
  - n. Defence Security Principles Framework;
  - o. Defence Pollution Prevention Management Manual; and
  - p. Department of Defence Explosives Regulations.
17. An accredited Building Certifier will certify the compliance of the design and the compliance of the completed works. Construction compliance with the design will be assured using approved quality management systems, which will implement processes such as inspections, audits and independent testing.

### Land and Zoning

18. The Deerubbin Aboriginal Land Council has been engaged throughout the development of the Project, with risks to heritage managed through the Defence Establishment Orchard Hills Heritage Management Plan.
19. The proposed works are consistent with uses prescribed in relevant Defence zoning instruments for the Defence Establishment Orchard Hills and aligns with the Defence Estate Strategy Implementation Plan 2016-2036.
20. Site Selection Boards were completed for all proposed new buildings to ensure developments are consistent with both approved estate plans and the Defence Estate ‘Principles of Development’. Site Selection Board assessments considered the suitability of



sites for proposed functions, the locations of related functions, access to services and infrastructure, and radio frequency and line of sight considerations.

#### Leased Properties

21. The Project includes the divestment of a long-term lease of commercial office space located at 311 High Street (Danallam House), Penrith, New South Wales, which accommodates approximately 140 Explosive Materiel Branch personnel. The proposed new working accommodation to be built at the Defence Establishment Orchard Hills will provide substantial lease savings and will enable the consolidation of all Explosive Materiel Branch personnel in one purpose-built facility, thereby realising functional efficiencies for the Explosive Ordnance enterprise.

#### Structure

22. The proposed structures have been designed in accordance with the local geotechnical profile at the Defence Establishment Orchard Hills. The structures will consist of steel frame construction to deliver single-storey buildings, and a combination of a concrete frame with the top floor of steel frame construction to complete multi-storey buildings. Post-tensioned concrete floorplates suspended from the steel frame superstructure will maximise spans for future flexibility in floorplan configurations to adapt throughout the life of the facility. The two proposed Intake Switching Station facilities will be framed in loadbearing concrete.

#### Mechanical Services

23. The Mechanical services have been designed according to the function and needs of each building. The proposed mechanical services will meet specific user needs, relevant ventilation, thermal comfort and air quality requirements and the mandatory requirements of the National Construction code.

#### Hydraulic Services

24. The hydraulic services have been designed to the requirements of all applicable legislation, codes of practice and guidance publications relevant to New South Wales, as well as Defence standards and guidelines. Designs will also be in accordance with the Defence Smart Infrastructure Manual, which address the sustainability elements associated with the hydraulic services.

### Electrical Services

25. The electrical (power and lighting) services conform to the requirements of all applicable legislation, codes of practice and guidance publications relevant to New South Wales, as well as Defence Standards and Guidelines, such as the Manual of Infrastructure Engineering – Electrical and the Defence Smart Infrastructure Manual.

### Fire Protection

26. The fire protection design has been designed to the requirements of all applicable legislation, codes of practice and guidance publications relevant to New South Wales, as well as Defence standards and guidelines.

27. To meet Defence Standards an Asset Classification has been prescribed, which defines the level of fire protection above the requirements of the National Construction Code.

28. Measures have been implemented to mitigate new facilities against bushfire risk, including required clearances from adjacent bush.

### Security Measures

29. The security measures are a suite of measures based on the Defence-in-depth principles. Security measures are compliant with statutory requirements and address all requirements identified by the Project's Protective Security Working Group. The security design of the upgraded base entrance considers contemporary base security measures and is consistent in approach to other Defence sites.

### Acoustics

30. New facilities will comply with the National Construction Code and Australian Standards for noise and acoustics. Acoustic separation has been considered between rooms, and walls are being designed to meet user requirements.

### Work Health and Safety

31. 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 35 (4) of the *Building and Construction Industry Improvement Act 2016(Cth)*, contractors will be required to hold 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.

32. Safety aspects of the Project were addressed during the design development process and are documented in Safety in Design Reports. A Work Health and Safety Plan will be developed before construction activities commence.

#### Materials and Furnishings

33. Materials and furnishings will be sought from readily available local suppliers, and selected against functionality, durability, low maintenance and ecologically sustainable design properties.

34. External walls for new buildings will be a mixture of concrete panels, metal cladding and glazing. Structural framing will be steel and where exposed will be coated in a low maintenance finish.

35. Internal walls will consist of concrete and plasterboard with steel studs. Floors will be low maintenance, and mainly consist of sealed concrete in working areas. Floors in other areas will be a combination of vinyl, ceramic tiles or carpet tiles.

#### Landscaping

36. The proposed new landscaping works will complement existing site conditions. Design will focus on a functional, low maintenance, water sensitive approach and consist of Indigenous plants.

37. Precautions will be taken to avoid compromising environmental sensitivities by adopting landscaping practices in accordance with local environmental conditions and the Construction Environmental Management Plan.

#### Childcare Provisions

38. There is no requirement for childcare facilities under the Project.

#### Provisions for People with Disabilities

39. Access for people with disabilities will be provided in accordance with the National Construction Code, AS1428.1-2009 Design for Access and Mobility, and the *Disability and Discrimination Act 1992 (Cth)*.

#### Environmental Sustainability

40. 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. These include:

- a. **Energy targets.** Energy performance targets will comply with the Defence Smart Infrastructure Manual where applicable.
- b. **Measures to reduce energy and water use.** Measures proposed to reduce greenhouse gas emissions and energy use include passive building design principles for new facilities; using energy efficient heating ventilation and air conditioning systems, lighting and intelligent control systems; waste storage, disposal and potential for recycling; maximising natural ventilation and installing energy management systems; and selecting sustainable materials considering procurement, production and environmental performance. Measures proposed to reduce water use include specifying water efficient fixtures and fittings; rainwater harvesting; where landscaping works are proposed, adopting water sensitive urban design principles; and selecting native, low-water usage plant species requiring irrigation only for establishment.
- c. **Re-Use of existing structures:** One of the existing buildings will be retained as working accommodation. This building was assessed as having significant usable life remaining compared to other existing facilities.
- d. **Demolition and disposal of existing structures.** Material from demolished buildings and construction waste will be diverted to into established recycling industries in the region.

## Potential Impacts

41. Defence has conducted rigorous assessments to identify potential environmental and local community impacts and propose suitable mitigation measures. These include:
- a. **Visual Impacts.** The upgraded main entry precinct and Cadet Multi-User facility are located on Defence land adjacent to The Northern Road. All works have been designed to minimise the aesthetic impact to the natural environment and maintain a consistent visual approach with that of other Defence entry precincts
  - b. **Noise Impacts.** There is expected to be no material noise impacts to local communities outside of the base. On the base, the mechanical plant selection and location of plant rooms within facilities has been designed to minimise the noise impacts on nearby Defence facilities.
  - c. **Heritage Impacts.** The site selection process has considered the existing heritage precincts of the Defence Establishment Orchard Hills. The existing natural, historic, and Indigenous values of the site will not be impacted by the proposed works. If a heritage artefact is discovered during construction, the Managing

Contractor will comply with Defence's heritage finds process, which will be outlined in the contractor's environmental management and heritage plan.

- d. **Traffic, Transportation and Road Impacts.** The Project expects minimal impact to traffic, transportation and road use due to the recent upgrade of The Northern Road to accommodate the expected increase in vehicle traffic due to the new Western Sydney Airport and population growth in the area. The Northern Road upgrade included signalised entry to the base increasing road safety for vehicles entering and exiting the Defence Establishment Orchard Hills.
- e. **Relevant Local Facilities.** The proposed new Cadet Multi-User facility will enable the local Air Force Cadets to relocate from temporary facilities off-base to a purpose-built facility on-base.

42. Based on the findings of the assessments undertaken by the Project, Defence has determined that existing environmental and heritage will not be significantly impacted by the Project. Therefore, the Project is not required to be referred to the Minister for the Environment and Water under the *Environmental Protection and Biodiversity Conservation Act 1999 (Cth)*.

## Consultation with Key Stakeholders

43. Defence has developed a community consultation and communications strategy that recognises the importance of providing local residents and other interested stakeholders an opportunity to provide input into, or raise concerns relating to the proposed works. Defence has engaged with a variety of internal and external stakeholders during Project development to date, including:

- a. Federal Member for Lindsay, Mrs Melissa McIntosh, MP;
- b. State Member for Penrith, Ms Karen Anne McKeown, OAM, MP;
- c. State Member for Badgerys Creek, Ms Tanya Davies, MP;
- d. Penrith City Mayor, Councillor Mr Todd Carney;
- e. Penrith Valley Chamber of Commerce, President Mr Richard Fox;
- f. Deerubbin Local Aboriginal Land Council, Mr Athol Smith, Chair; and
- g. Darug Ngurra Aboriginal Corporation, Ms Corina Wayali Norman.

44. Further consultations will be conducted to support the Parliamentary Standing Committee on Public Works' inquiry into the proposed works.

## Related Projects

45. The following projects at the Defence Establishment Orchard Hills are related to the Project:

- a. **Guided Weapons Explosive Ordnance Storage Program.** The delivery of explosive storage buildings and associated infrastructure in the explosive storage area at the Defence Establishment Orchard Hills and will be delivered at the same time as this Project. Detailed engagement within Defence has occurred to minimise the impact of the two projects. The Guided Weapons Explosive Ordnance Storage Program will be referred to the Parliamentary Standing Committee on Public Works in mid to late 2024.
- b. Minor estate works projects affecting electrical (High Voltage) and civil (roads and fencing).

46. These projects have been considered against the base's master planning and services infrastructure solutions to enable future shared uses, and to be integrated for efficient operations.

## Cost Effectiveness and Public Value

### Project Costs

47. The Project's estimated total capital out-turned cost is \$359.3 million (excluding Goods and Services Tax). This cost estimate includes project management and design fees, construction costs, information and communications technology, furniture, fittings, equipment, contingencies and a provision for escalation.

48. There will be ongoing operating and sustainment costs as a result of the proposed works. This is due to the additional maintenance, cleaning and utilities expenses that will be required to operate and maintain the proposed new facilities and infrastructure.

### Delivery System

49. Defence proposes to retain the currently engaged Project Manager / Contract Administrator for the delivery phase of the works.

50. A Managing Contractor is planned to be engaged to procure trade sub-contractors and to manage the construction works. The Managing Contractor form of delivery provides the Commonwealth with buildability input into the design while promoting opportunities for small to medium enterprises by sub-contracting design and construction trade packages.

This form of contract is the most suitable for large, complex projects with multiple stakeholders and inter-dependencies.

### Construction Program

51. Subject to Parliamentary approval, design activities are expected to be completed in early 2025, with construction expected to commence in mid-2025 and be complete by mid-2028.

### Public Value

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

- a. **Economic impacts.** The Project expenditure will support the Australian economy, in particular in the construction and professional services sectors in the surrounding regions.
- b. **Employment opportunities.** The Project will employ a diverse range of consultants, contractors and construction workers, and is expected to generate opportunities for up-skilling and job training to improve individual skills and employability on future projects. Defence anticipates that, over the life of the project, up to 300 full-time equivalent direct and indirect jobs are likely to be created in the Western Sydney Region.
- c. **Local industry and Indigenous business involvement opportunities.** Defence and the Managing Contractor anticipates providing local businesses with opportunities, including Indigenous businesses, to supply construction materials and labour. This is expected to boost local economies. Defence and the Managing Contractor will actively promote opportunities for small to medium local enterprises through construction trade packages, and there may be opportunities for Indigenous business involvements in accordance with the Government's Indigenous Procurement Policy. Works to be undertaken must comply with the Government's Policy for Local 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 tenderers will be required to report on their performance against them. While the policy does not mandate or preference local suppliers, there are expected to be opportunities to engage local suppliers on the Project.
- d. **Health and Safety.** The Project will increase vehicle safety through the upgraded Base Entry precinct and provision of a modernised security access system. The

new main entrance will incorporate improvements in traffic flow, reducing the impacts on wider community users of The Northern Road. The consolidation of Cadet Units close to the main entry will increase safety by reducing the movement of minors and families on base.

- e. **Existing infrastructure services:** The Project proposes to connect the Defence Establishment Orchard Hills to the Sydney Water wastewater system network to modernise the wastewater management system. This will enable the on-site Wastewater Treatment Plant to be decommissioned, remediate the site and eliminate on-site wastewater treatment.

#### Below the Line Items

53. The Project has identified and prioritised below line scope items that are currently unable to be funded within the Project's approved budget. In the event the Project experiences trade savings through tendering, or retirement of risk provision during delivery, the following scope items at the Defence Establishment Orchard Hills may be delivered:

- a. an Ammunition Process Building;
- b. Defence Explosive Ordnance Training School Training Hub, Quartermaster's Store, Instructors Workshop, additional truck shelter bays;
- c. additional living-in accommodation (60 rooms);
- d. a Combined All Ranks Mess;
- e. a Ranges Training Facility;
- f. civil works; and
- g. infrastructure upgrades at the Explosive Ordnance Depot Myambat.

#### Revenue

54. No revenue is expected to be generated from the Project.

#### **Attachments**

- 1. Location of the Project
- 2. Selection of Proposed Works



**Attachment 1**

**Location of the Project**



**Attachment 2**

**Selection of Proposed Works**



Figure 1: New Base Entry

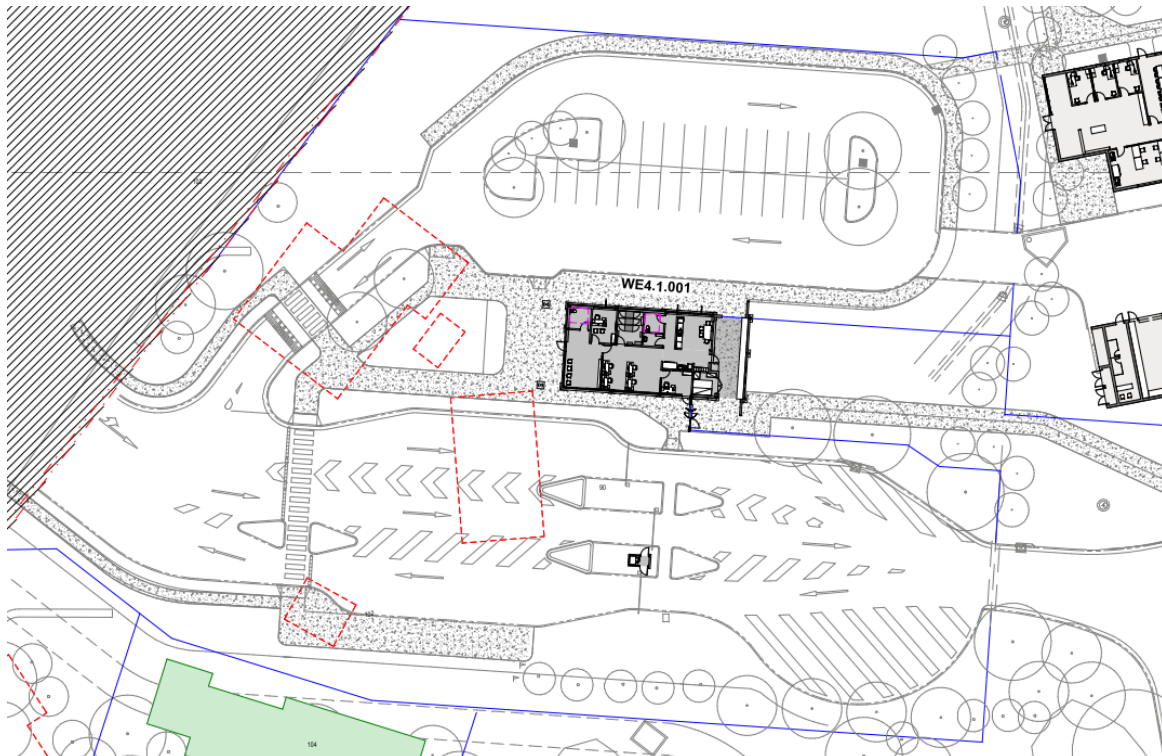


Figure 2: New Base Entry



Figure 3: Combined Working Accommodation

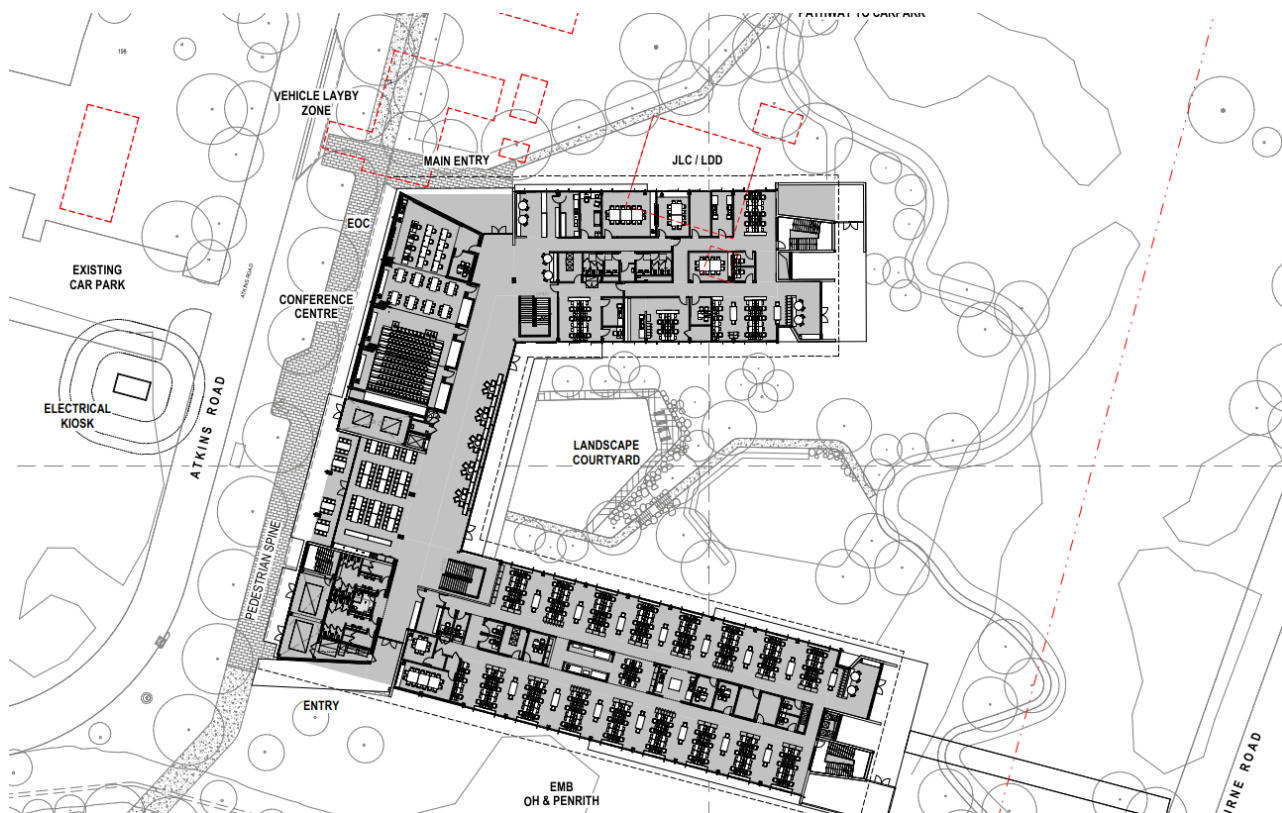


Figure 4: Combined Working Accommodation Ground Floor Plan





Figure 5: Living-In Accommodation

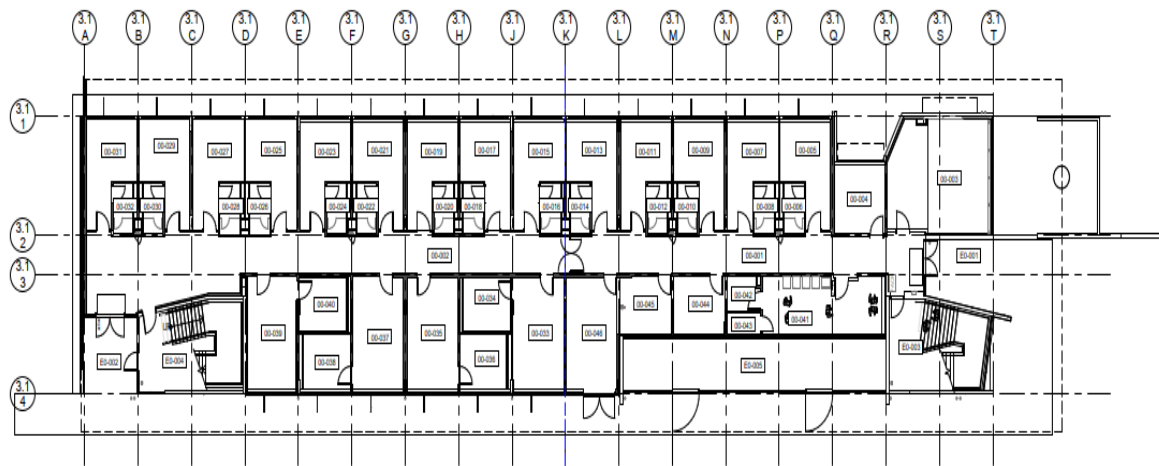


Figure 6: Living-In Accommodation Ground Floor Plan

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Figure 8: Training Facilities Floor Plan