



**Australian Government**  

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**Department of Defence**

# **HMAS CAIRNS REDEVELOPMENT**

**Cairns, Queensland**

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

**Department of Defence  
Canberra, ACT  
March 06**

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## **INTRODUCTION**

1. This evidence to the Parliamentary Joint Standing Committee on Public Works presents a proposal to redevelop the naval base HMAS CAIRNS. The proposal comprises marine works, refurbishment and adaptive re-use of existing buildings, construction of new buildings, civil works, temporary facilities and minor works, services works, demolition works, and several key property acquisitions. The proposed facilities will support all Navy vessels planned to be home ported at HMAS CAIRNS and operating in Far North Queensland.

## **OBJECTIVES**

2. The objectives of the project are to refurbish and reinvest in the aging infrastructure at HMAS CAIRNS - the only naval base in Queensland – and to address the needs of the new Armidale Class Patrol Boat that will home ported at HMAS CAIRNS from November 2006. With the introduction of the much larger Armidale Class Patrol Boat, the pressures on the existing berthing and base facilities will be exacerbated.

3. The Navy wharf needs a widened access for the increasing volume and size of vehicles that service the berths, and services such as electrical reticulation, lighting and fuel re-supply need upgrading as the existing services connections do not meet the Armidale Class Patrol Boat requirements. Defence has been berthing Navy vessels at the nearby commercial wharf since 20 September 1996. While the arrangement has alleviated berthing pressures on HMAS CAIRNS, it has in the longer term proved to be inefficient and unsatisfactory because vessels cannot be provided with shore services including shore power and wharf security and therefore must retain a higher number of crew members onboard than would normally be required if the commercial berth provided the requisite range of services.

4. Since the existing HMAS CAIRNS was commissioned as a naval base, there has been an incremental increase in the number of home ported vessels and the consequential need to provide shore services in support of more functional units. While some facilities upgrades were made as additional operational functions were introduced, the pressure has increased on base support facilities, with some, such as the medical facilities, particularly cramped and dysfunctional. The base engineering services infrastructure also needs updating to improve voice and data communications, security, electrical and water supply reticulation and stormwater drainage and sewerage capacities.

## **BACKGROUND**

5. HMAS CAIRNS is situated in Far North Queensland. The Location Map at Annex A, shows the base is located approximately two kilometres south of the Cairns central business district on the western side of Trinity Inlet. The existing development at HMAS CAIRNS is shown in Annex B.
6. HMAS CAIRNS commenced operations as a non-commissioned patrol boat facility located in Grafton Street, Cairns in 1971 in support of three Attack Class patrol boats which were berthed at Trinity Wharf. The facility was commissioned as a naval establishment on 1 February 1974 and the hydrographic ship HMAS FLINDERS was home ported in Cairns from 1974 (until its decommissioning in the mid-1990s).
7. In May 1982, HMAS CAIRNS was recommissioned in its present location where the facilities were purpose-built to home port four Fremantle Class Patrol Boats, HMAS FLINDERS, and a number of small support vessels. At that time, the establishment supported approximately 100 personnel. By the mid-1990s, the expansion of maritime tasks undertaken by HMAS CAIRNS increased the number of home port vessels to 15 – five Fremantle Class Patrol Boats, four Landing Craft Heavy, four Survey Motor Launches, and two Leeuwin Class Hydrographic Ships. When the four new Armidale Class patrol boats are commissioned to replace the five Fremantle Class patrol boats, the total of home ported vessels will reduce to 14. Notwithstanding the reduction in the total number of Cairns-based Fleet units, the Armidale Class Patrol Boat is significantly larger than the Fremantle Class, some 15 metres longer, and the berthing arrangements need upgrading.
8. The current HMAS CAIRNS population comprises 783 personnel, including 722 uniformed personnel. In addition, the Base provides administrative health and dental support to a further 99 Australian Defence Force personnel, mainly from Army's 51st Battalion Far North Queensland Regiment.

## **THE PROPOSAL**

9. The proposal is divided into a number of key project elements. The Project Precinct Plan at Annex C shows the location of the key elements and each key element is described in the sections that follow. Annex C also shows those existing infrastructure assets that will be retained for their current functions. These assets include the dangerous goods store, the cold room, the covered berth, the secure store, the pool, and the outdoor sports court.

### **Marine Works**

10. The forecast maritime operational tempo of the 14 home ported vessels will place continuous demand on berthing and shore services. To alleviate congestion, the project optimises reinvestment in wharfage works by reusing the existing Navy wharf, widening the northern side of the access jetty, and refurbishing services to the existing berthing points. A concept design at Annex D illustrates this work.

11. The project proposes constructing an access jetty connecting HMAS CAIRNS to the nearby commercial wharf. The jetty will be used to route shore services to two new berthing points on the commercial wharf. A concept design at Annex E illustrates this work.

### **Refurbishment and Adaptive Re-Use of Existing Buildings**

12. Almost all buildings on the Base will be retained in the proposed works and either refurbished or adaptively re-used to rationalise and improve efficiency. Four major buildings - Command, In Service Support Facility, Fleet Logistics Support Element, and Fleet Intermediate Maintenance Activity - will be re-used for augmented and new functions. The neighbouring naval cadet property *Training Ship Endeavour*, will be incorporated into the Base with only a modest upgrade of the existing facilities. Other existing facilities being retained and re-used are described in the Temporary Facilities and Minor Works section.

13. The existing Command building is being adapted to provide improved accommodation for Duty Watch personnel, the Coxswain, the Minor War Vessel Sea Training Unit, the Training and Education Unit, the Garrison Support Services Contractor, and the Chaplain. The ground floor Messes and their respective terraces for Officers, Senior Sailors, and Junior Sailors will be retained.

14. The existing two storey In Service Support Facility building will be reused to collocate all of the Defence Materiel Organisation's System Program Offices that support the Cairns Based Fleet Units. The re-planning within the envelope of this building is aimed at achieving greater functional efficiencies. Refurbished office and storage space will also be provided for the off watch Armidale Class patrol boat crew. Some facilities, such as meeting rooms, will be shared between these groups.

15. The smaller Fleet Logistics Support Element building will be refurbished for its current uses and internally altered to accommodate the relocated functions of the medical, clothing and bond

stores. The currently overcrowded offices on the first floor will be expanded and planned into a more efficient working environment.

16. The functional needs of Fleet Intermediate Maintenance Activity have reduced due to commercialisation of patrol boat maintenance, so the existing building will be refurbished for its reduced role and to accommodate the relocated functions of Port Services, the Bosun's Store, and the Port Services Support Contractor.

17. The *Training Ship Endeavour* facilities will be incorporated into HMAS CAIRNS. The parade ground will be partially relocated to enable the proposed new access road to the commercial wharf to be constructed. The security fencing will also be moved to bring these facilities inside the security perimeter. Naval cadets will retain the amenity of launching small craft into Trinity Inlet by completion of a pontoon and boat ramp adjacent to the northern side of the access jetty to the commercial wharf.

### ***Construction of New Buildings***

18. A new, two storey Central Building is proposed to accommodate, at ground floor level, the Health Services Centre (including facilities for doctors, a pharmacist, a psychologist, a physiotherapist, and dentists), and the Corporate Services Customer Service Centre. At first floor level, the building will accommodate Command, the Career Management Cell, the Comprehensive Maintenance Services contractor, the Navy communications centre, and some elements of the Corporate Services and Infrastructure Group, including the Information Systems services staff. Relocation of a number of units to this new building avoids the need for double moves, aggregates disparate functions, and makes way for good functional relationships for other units in existing buildings. The building has direct access to the Base entry and a clear view of the wharves. A concept design for the new Central Building is included at Annex F and preliminary elevations are included at Annex G.

19. A New Fitness Centre is proposed to be built on the property to be acquired from the Cairns Port Authority (Lot 485). This facility will provide fitness facilities to meet the physical fitness requirements of Base personnel. The current facilities are inadequate and pose an Occupational Health and Safety risk, while circuit training is also compromised. The Fitness Centre will comprise the physical training office, weights training, cardio facilities, boxercise and an adventure training store. A concept design and elevation of the new Fitness Centre is included at Annex H.



### **Civil Works**

20. The proposed civil works will include changes to the existing Base entry and provision of a new queuing lane in Draper Street. A new 255-space car park will be built on Lot 485. Car parking will be relocated from its existing location along the northern side of Draper Street, to enable the access road to the commercial wharf to be built and to improve the safety for turning through traffic. Hardstanding will also be constructed on the current Cook Street road reserve (to be acquired), immediately south of *Training Ship Endeavour*, to store eight shipping containers and accommodation modules currently located at Kenny Street.

21. Landscaping will be incorporated in the project to provide quality open space to balance against the increase in site density and site uses which are more typical of an urban development. The landscape design will also provide an outdoor and ceremonial space to replace the existing area lost due to the location of a new Central building. Landscaping on Lot 485 will establish formal planting which visually links to the HMAS CAIRNS Base as well as providing car park shading.

### **Temporary Facilities and Minor Works**

22. Temporary facilities and services will be required to facilitate the staging and decanting of staff and functions, while buildings are refurbished or new construction is underway.

23. The storage of small support vessels and miscellaneous elements is currently provided at the northern end of the Base and at Kenny Street. The existing hardstand area and associated minor buildings will be re-used to provide undercover storage for the small support vessels and hardstand for the miscellaneous elements.

24. The Navy Fuel Installation Pump House is located at the northern end of the Base adjacent to the Navy Fuel Installation fuel storage tanks. The proposal provides for a new Quality Control laboratory within the Pump House and remodelling of the staff amenities area.

### **Services Works**

25. A site-wide upgrade of existing base services infrastructure is proposed to support the planned building refurbishments, the new buildings, and the installation of new and upgraded services to both wharves. The extent of this work will be restricted to those services required to adequately provide for the redevelopment project. This upgrading will include changes to the electrical

reticulation, water reticulation, stormwater drainage, sewerage, voice and data communications, and the Base security system.

### ***Demolition Works***

26. A limited number of structures have been identified as available for demolition in order to minimise ongoing maintenance costs and to make way for new development.

### ***Property Issues***

27. Defence proposes to acquire an interest in several properties adjacent to HMAS CAIRNS that will extend the berthing arrangements and enable the planned construction of new facilities to proceed. Preliminary negotiations with the respective property owners have been very productive. No objections have been raised to the proposed acquisitions and Defence expects to acquire the properties through normal commercial transactions.

### **COSTS**

28. The total estimated outturn cost of the proposal including property acquisitions is \$76.3 million. As a consequence of the additional facilities being delivered through the Base redevelopment the recurrent operating costs will increase by \$2.0 million per annum.

### **OPTIONS**

29. An initial study of the possible arrangements for berthing the larger Armidale Class patrol boat revealed that adjacent commercial development, and the physical size and layout of the navigation channel serving HMAS CAIRNS, prevented an expansion of the Navy's berthing facilities to accommodate the new patrol boat. Because of these constraints, the most cost effective solution for basing the new boats in Cairns is to acquire increased berthing access at the adjoining commercial wharf.

30. Defence has considered the cost effectiveness of building new shore facilities compared to re-use. There is a fifty percent premium in the rates for building new compared to the costs of refurbishing and adaptively re-using existing buildings.

## **ECONOMIC, ENVIRONMENTAL AND SOCIAL IMPACTS**

### ***Establishment Population***

31. There will be no net increase of personnel with the redevelopment of HMAS CAIRNS.

### ***Environmental Impact Assessment***

32. An Environmental Impact Assessment has been undertaken to establish whether a referral under the Environmental Protection and Biodiversity Conservation Act 1999 ('the Act') to the Department of Environment and Heritage would be required. A referral under the Act is not considered necessary, although the assessment identified certain requirements for the construction work proposed. These will be addressed by the project team, which will formulate tailored design solutions and work to a Construction Environmental Management Plan to manage potential environmental issues.

### ***Heritage Impact Assessment***

33. A Heritage Impact Assessment has been undertaken to establish whether a referral under the Environmental Protection and Biodiversity Conservation Act 1999 ('the Act') to the Department of Environment and Heritage would be required. A referral under the Act is not considered necessary. While none of the existing structures on the HMAS CAIRNS Base are of heritage value, several artefacts have local cultural value and will be treated as follows:

- a. The Anchor and Mine on the HMAS CAIRNS site will be retained on public display in either their existing or new positions. Care is to be taken during relocation as well as protection from adjacent construction activities.
- b. The memorial cairn to 'M' and 'Z Force', erected at HMAS CAIRNS in 1994, will be retained on public display in either the existing or a new position, and an additional plaque added to indicate that it was relocated from the 'House on the Hill' site in nearby Earlville, where 'Z Force' trained for their 1942 mission. Care is to be taken during relocation as well as protection from adjacent construction activities.
- c. The Old Shed at *Training Ship Endeavour*, if not retained on site, will be relocated to a new site within the local district with the current and new positions recorded.

- d. The Returned Services League Flats Laundry at *Training Ship Endeavour* has been assessed as being of no heritage value and, if not required on site, could be demolished.

### ***Staging and Decanting Strategy***

34. Construction activities impacting on ongoing base operations will be mitigated by undertaking the works using a managing contractor form of contract. Marine works to increase available wharfage is a key element of the project and its scheduled duration is concurrent with arrival of the first Armidale Class Patrol Boat in November 2006, and delivery of the remaining three vessels by July 2007. Notwithstanding that marine works will not be completed until after the fourth Armidale Class Patrol Boat arrives at HMAS CAIRNS, Navy's day-to-day berthing requirements can be managed by maintaining a flexible construction program during this period.

35. Works on the Navy wharf will be given priority in the redevelopment of the base and is planned to start in November 2006 and be completed in June 2007. This will allow the Navy wharf to be fully functional in its new arrangement prior to arrival of the last three Armidale Class patrol boats. Second priority will be given to works on the adjacent commercial wharf. After consultation with Navy, the marine works are being planned with a 3-month stagger between wharves, to ensure that berthing space and servicing facilities are always available for maritime operations. Navy have also agreed that during this timeframe, Armidale Class patrol boats berthed at HMAS CAIRNS will operate on shipboard systems, although there will be opportunities to utilise existing wharf infrastructure depending on the construction program and the requirements of other Cairns-based Fleet units.

### ***Project Delivery Mechanism & Construction Workforce***

36. Defence has engaged a managing contractor to assist with the development phase of the project and, subject to project approval and satisfactory performance in the development phase, this commission will be extended to deliver the project. This approach provides a strong on site management presence to coordinate all elements of the project, and ensures that risks associated with construction can be addressed as they arise. It has proved to be the most appropriate contracting strategy for a complicated redevelopment site on an operational base, where maritime activities and construction activities must be properly synchronised.

37. The HMAS CAIRNS Redevelopment project will employ an average of approximately 180 skilled construction personnel directly on construction activities over three years. The managing

contractor will manage design and construction and engage local small and medium enterprises through subcontracting of design and construction trade packages.

38. The managing contractor will also be able to synchronise and scope subcontract work packages to meet the capacity of the market. In addition, it is anticipated that construction will generate further job opportunities off-site for the supply, manufacture and distribution of components and materials for local and national contractors and suppliers. As a result, there will be no significant adverse impacts on the local construction industry or on building development capacity in the region.

### ***Commercial Wharf Use***

39. The proposed access to, and use of, the adjacent commercial wharf will provide for priority use by Defence, but will not exclude commercial use of the wharf. No fishing or tourism operators currently use the commercial wharf and no commercial activity will be affected or displaced as a result of this development.

### ***Latent Conditions***

40. During project development Defence has undertaken extensive engineering investigations of HMAS CAIRNS and the proposed property acquisitions. These included a geotechnical investigation of existing foundation conditions on Lot 485 and HMAS CAIRNS, a soil contamination investigation of Lot 485, a structural engineering survey of the commercial wharf, an Environmental Impact Assessment of the proposed works, a Heritage Impact Assessment of the proposed works, and an engineering survey of in ground hydraulic and electrical services to the Navy wharf. These investigations, together with a thorough familiarity of the existing facilities, will enable Defence to minimise the risk of latent conditions.

41. Nevertheless, the age of the existing infrastructure may conceal deteriorated services, structural faults or buildability issues that only become known once construction works commence. To mitigate against this risk a commensurate level of contingency has been included in the project budget.

### **Project Milestones**

<b>Milestone</b>	<b>Target Date</b>
Parliamentary Standing Committee on Public Works Referral	March 2006
Parliamentary Standing Committee on Public Works Hearing	April 2006
Parliamentary Expediency Motion	June 2006
Commence Construction Works	August 2006
Construction Completion	Mid 2009

### **Consultation**

42. The following authorities and organisations have been consulted or will be consulted during the development of this project:

- a. Federal Member of Parliament for Leichhardt.
- b. Cairns Navy League.
- c. Cairns Port Authority.
- d. Sugar Terminals Limited.
- e. Queensland Sugar Limited.
- f. Cairns City Council.
- g. Queensland Department of Natural Resources & Mines.
- h. Ergon Energy.
- i. Telstra.
- j. Queensland Environmental Protection Agency.
- k. Queensland Department of Primary Industries (Fisheries).
- l. Queensland Fire & Rescue Service.
- m. Queensland Transport.
- n. Commonwealth Department of Environment & Heritage.
- o. Commonwealth Department of Transport & Regional Services.

- p. Great Barrier Reef Marine Park Authority.

### ***Ecologically Sustainable Development***

43. Defence became a participant in the Greenhouse Challenge Program with the signing of an agreement with the Australian Greenhouse Office and the concurrent implementation of the Defence Energy Efficiency Program. The Government has set specific energy-efficiency targets that require a reduction in greenhouse gas emissions resulting from Defence facilities operations. The target for new office accommodation at HMAS CAIRNS is to achieve 4-star Green Star and 4.5 Australian Building Greenhouse Rating. For non-office accommodation, a target improvement in the minimum energy efficiency performance requirements of the Building Code of Australia has been adopted.

44. Ecologically sustainable design features have been applied to the mechanical, electrical, and hydraulic systems that will be installed in the new buildings and those adaptively reused buildings that will undergo substantial refurbishment. These initiatives will reduce long term operating costs for Defence, while improving the indoor air quality in these buildings. For example, an increased supply rate of outside air, coupled with natural ventilation to improve indoor air quality and reduce air-conditioning loads will reduce electricity consumption, while improving the working environment for Defence personnel. Similarly, the installation of high efficiency lighting will reduce electricity consumption and the installation of low flow bathroom fixtures will reduce the consumption of potable water.

### ***Provision for Child Care***

45. A child care facility for Australian Defence Force personnel is located at Jensen Street, Cairns. This facility is appropriate for the function and will remain. No work to this facility is included in this project.

### ***Provision for People with Disabilities***

46. Facilities for people with disabilities will be provided in accordance with relevant codes and policies. A new passenger lift will be provided in both the Fleet Intermediate Maintenance Activity building and the Central Building, with a first floor level link to the Command building.

### ***Occupational Health and Safety Measures***

47. The facilities to be provided will comply with the Department of Defence Occupational Health and Safety policy, the Occupational Health and Safety (Commonwealth Employment) Act 1991, Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations and the Defence Occupational Health and Safety Manual. The construction will also comply with the Queensland Codes of Practice.

## **PLANNING AND DESIGN CONSIDERATIONS**

### ***Design Codes and Standards***

48. Where appropriate, the design of new and adaptively reused facilities will conform to the relevant sections of:

- a. Building Code of Australia.
- b. Australian Standards and Codes.
- c. Occupational Health and Safety and Welfare legislation.
- d. Defence Manual of Fire Protection Engineering (MFPE).
- e. Defence Security Manual (DSM).
- f. Environment Protection and Biodiversity Conservation Act 1999.
- g. Workplace Health and Safety Act and Regulations.
- h. Commonwealth Government Employment Code of Practice (Office & Amenities Guidelines).
- i. National Environmental Protection Council (NEPC) Standards.
- j. National Quality Water Management Strategy, Australian & New Zealand Environment & Conservation Council (ANZECC).
- k. Energy Efficiency Guidelines and Protocols in accordance with the Australian Greenhouse Office.



- l. National Code of Practice for the Construction Industry and the Industry Guidelines for the Industrial Relations and Occupational Health and Safety Components of the National Code.
- m. Disability Discrimination Act (DDA).

### ***Design Philosophy***

49. The general philosophy to be adopted with the design of the proposed facilities shall incorporate the following considerations:

- a. The provision of cost effective and utilitarian facilities of energy efficient design suitable for the climate (including cyclonic) conditions, and of a style compatible with the facilities at HMAS CAIRNS;
- b. Adoption where possible of conventional construction techniques and materials, in particular those commonly used by the construction industry in the Cairns area;
- c. The maximum use of existing infrastructure and facilities to minimise capital facilities costs;
- d. Utilisation of readily available and durable materials that combine long life while minimising maintenance;
- e. Recognition of site constraints, security requirements, functional relationships to existing facilities and operational determinants; and
- f. Planning, services and structure designed to accommodate flexibility.

### ***Engineering Services***

50. The existing infrastructure and building engineering services at HMAS CAIRNS date from the time of the development of each area, however some improvements have been made over time. Engineering investigation surveys have confirmed that the in-ground services are in reasonable condition and suitable for the redevelopment works. Many of the engineering services to the Navy wharf are in poor condition and others do not meet current Defence requirements and require replacement. All engineering work proposed will comply with all relevant Codes and Standards.

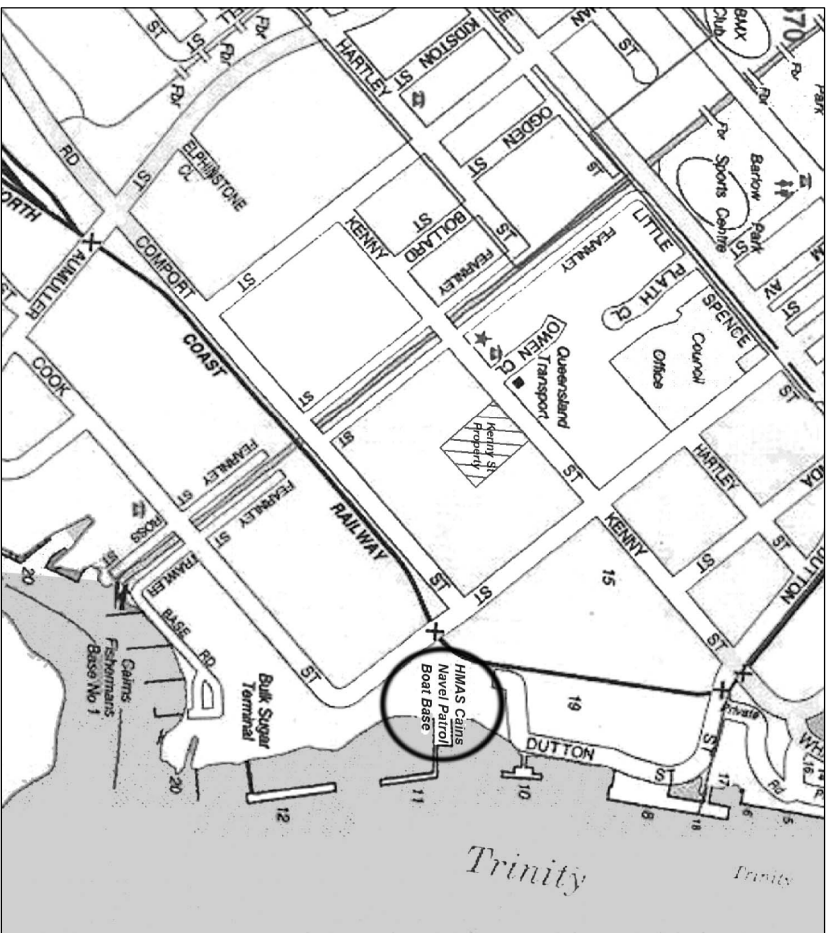
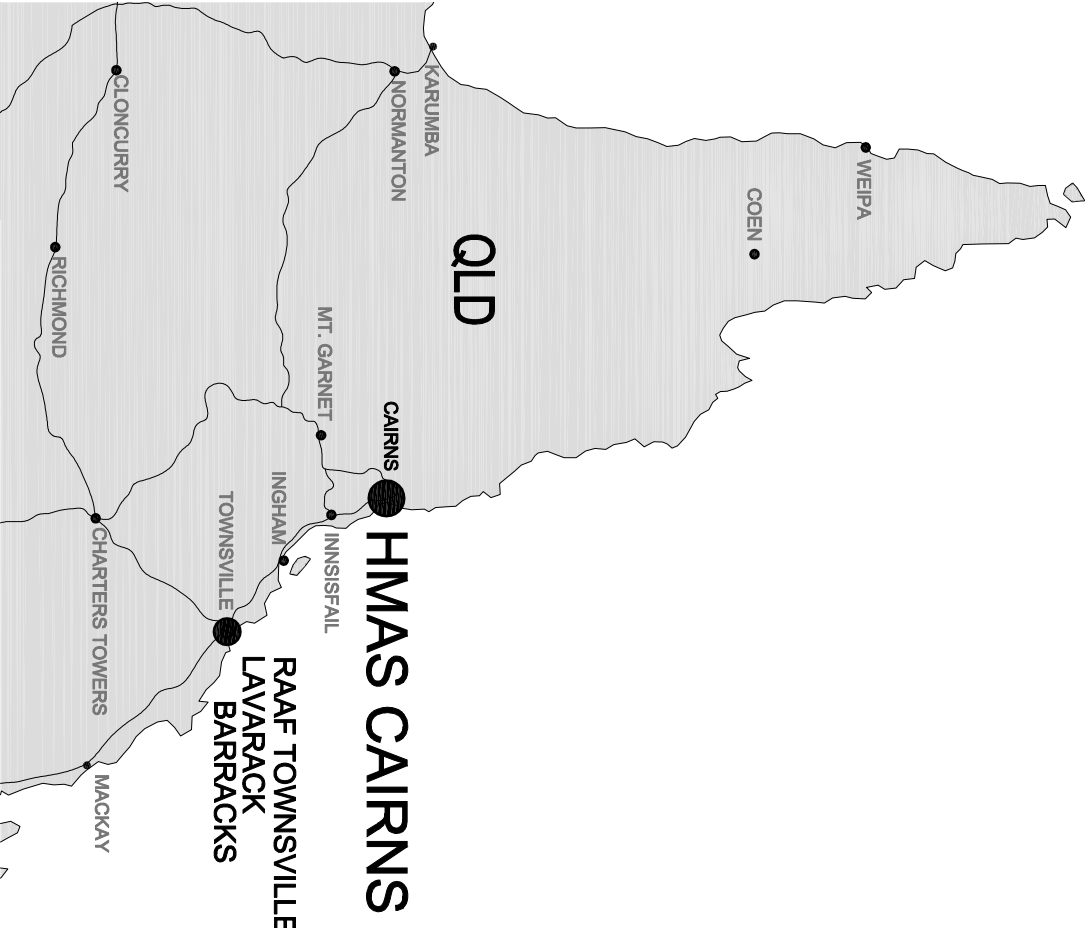
51. The mechanical services works involve a number of systems. The compressed air system will be modified through the relocation and upgrading of the compressor plant and refurbishment of existing and provision of new outlets to the Navy and commercial wharves. New air conditioning and mechanical ventilation will be provided to the Central Building and Fitness Centre while modifications to and replacement of portions of the air conditioning and mechanical ventilation systems will be provided to the adaptively reused buildings.

52. The data and communications services for the project include marine and land based components. New fibre and copper communications services will be provided to the Navy wharf and copper to the commercial wharf. New data and voice service outlets will be provided to the berthing points on the Navy and commercial wharves. The redevelopment works also includes the segregation of contractor and Defence networks.

53. The electrical services for the project includes marine and land based components. New electrical and lighting services will be provided to the Navy and commercial wharves. The land based components include extending and upgrading infrastructure, augmenting the building electrical network to suit the redevelopment and meet current codes, and reorganisation of the standby generator reticulation.

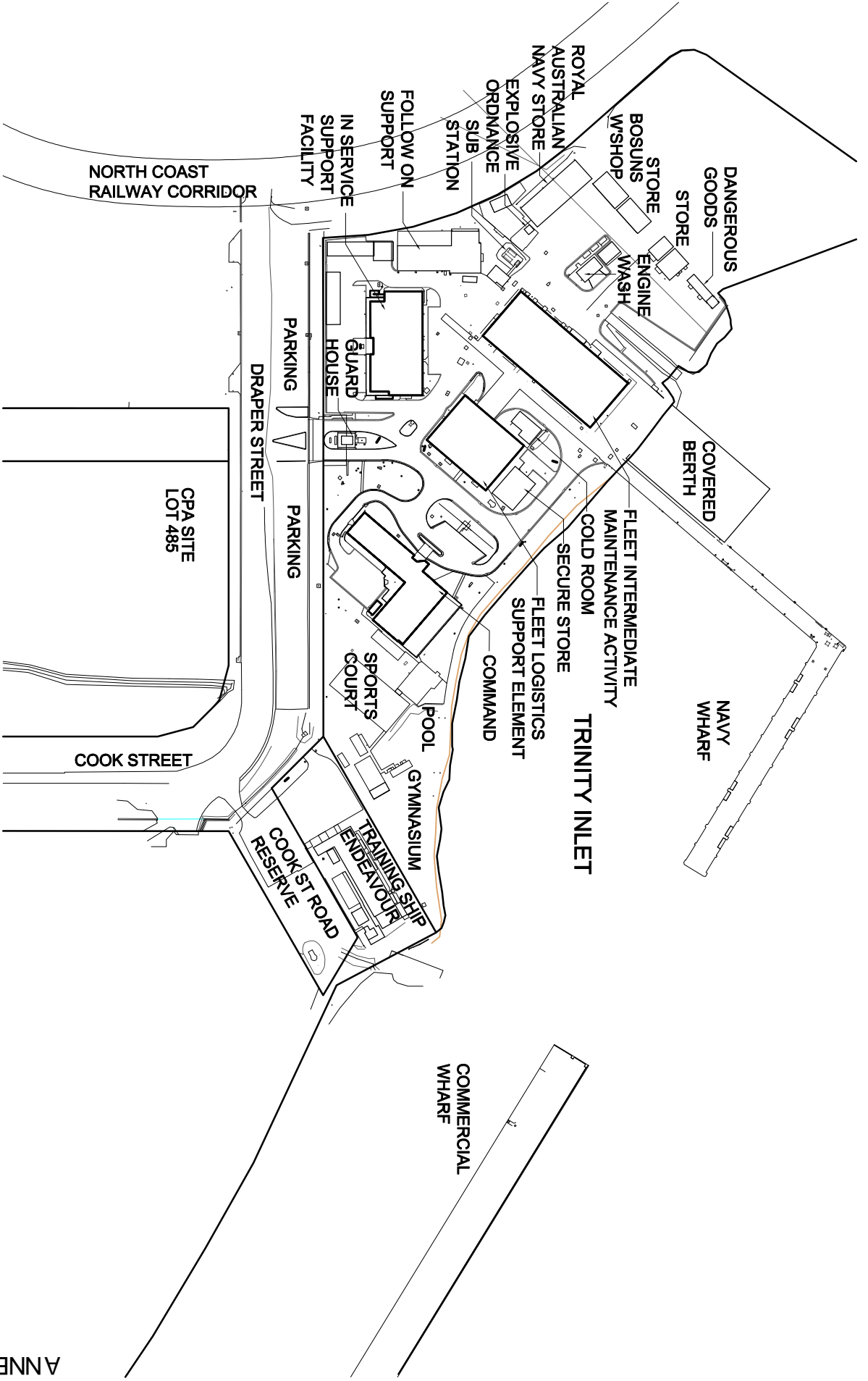
54. The fire protection services for the project includes marine and land based components. Marine works include modification to existing and extending hydrant and fire fighting water pump services to the Navy and commercial wharves. Land based work involves modifications to the fire detection and alarm systems in refurbished buildings and provision of new systems for the new buildings. The main fire alarm mimic panel will be relocated to the gatehouse and new detection systems will be installed to protect critical equipment.

55. Hydraulic services for water supply, sewerage, and stormwater involve extension of infrastructure and building services to suit the redevelopment. The fuel services are restricted to work associated with the Navy and commercial wharves. The work to the Navy wharf involves converting the existing fuel-on pipe to be the new de-fuel pipe and providing a new fuel-on pipe service. New fuel-on and de-fuel pipe services are being provided to the commercial wharf.



**HMAS CAIRNS REDEVELOPMENT**  
 LOCATION MAP





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HMAS CAIRNS REDEVELOPMENT

EXISTING SITE PLAN - SD-GLO-000



SCALE 1:750 @ A1

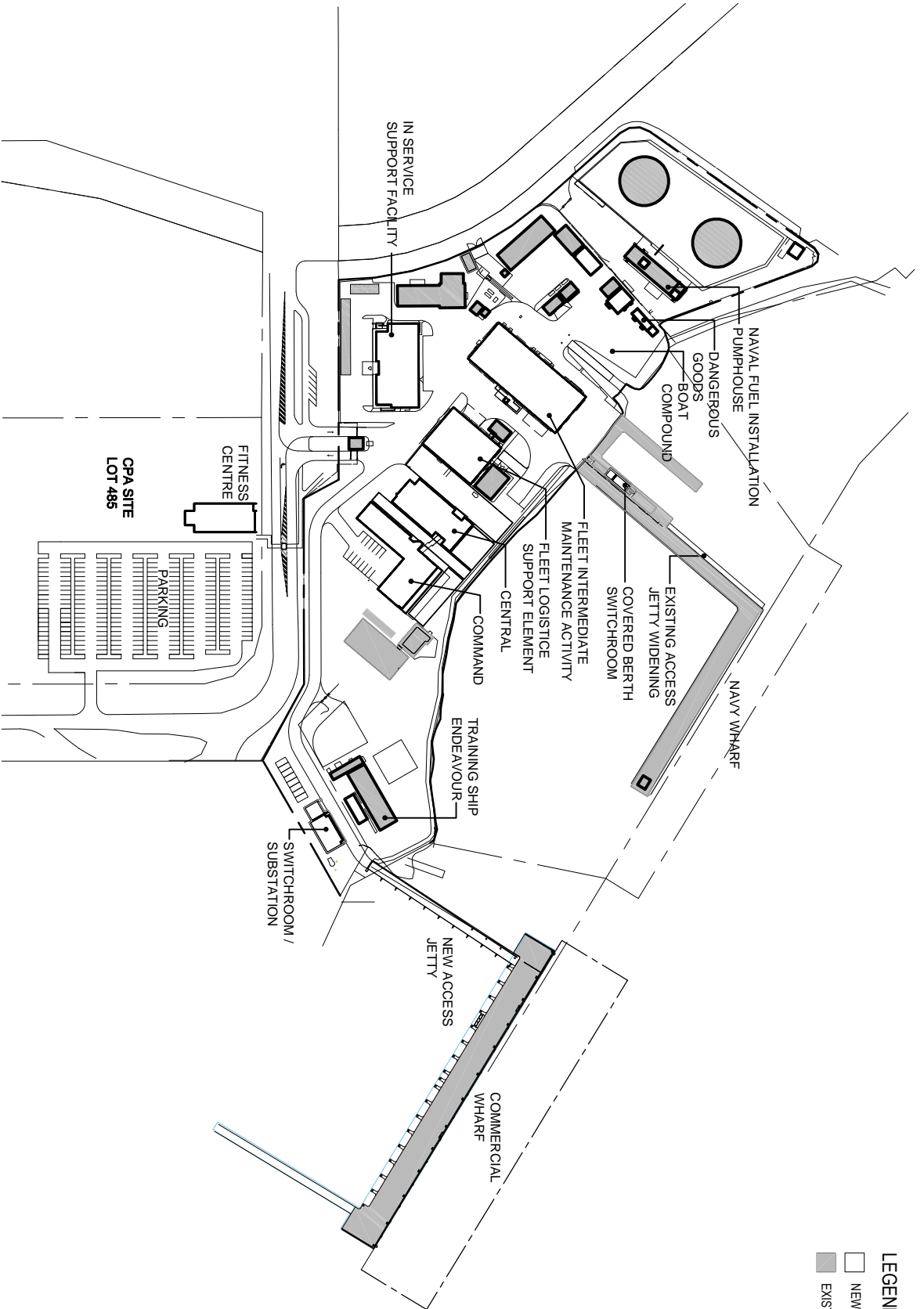
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# HMAS CAIRNS REDEVELOPMENT

## PROJECT PRECINCT PLAN - SD-GLO-100



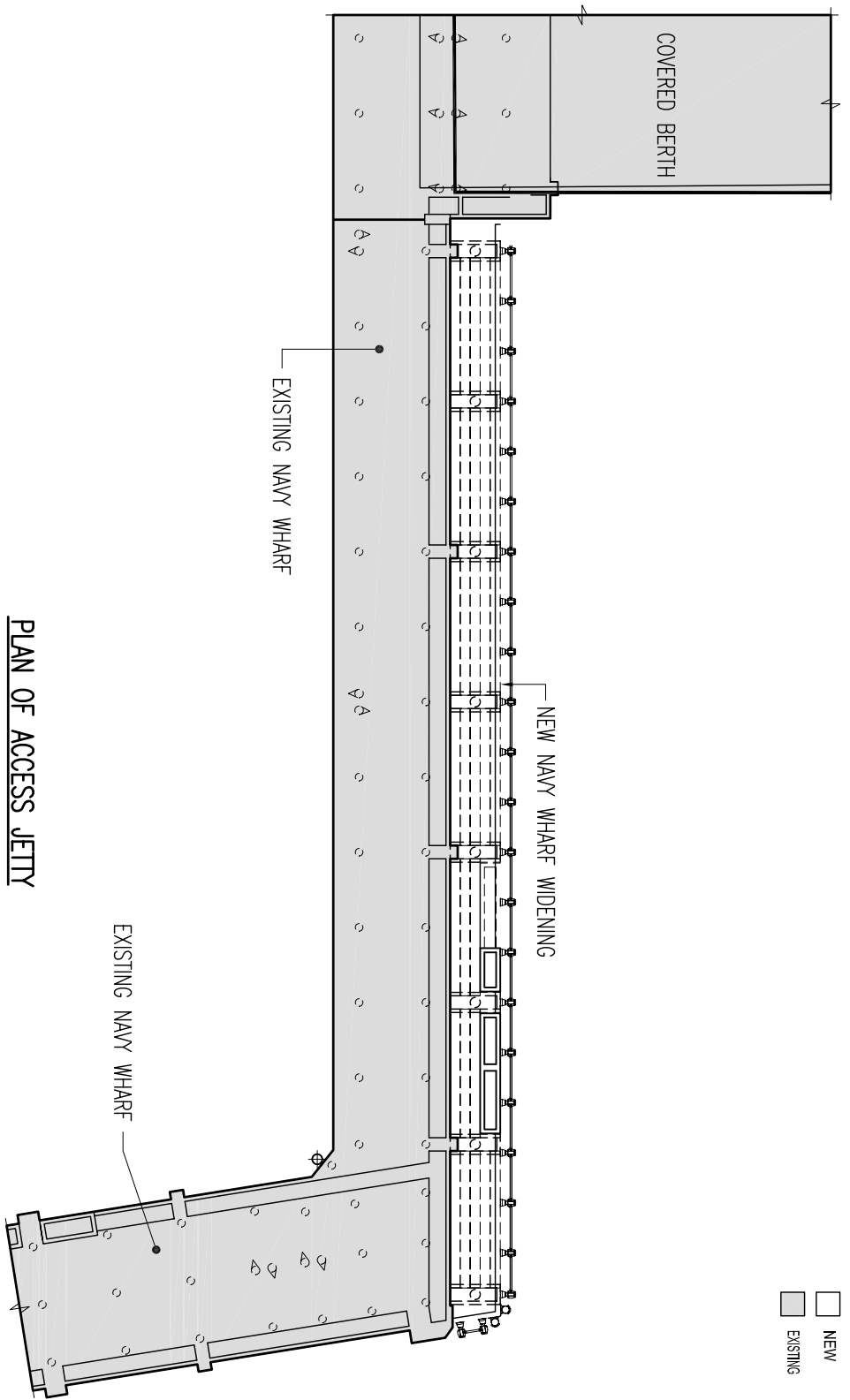
- LEGEND**
- NEW / REFURBISHED BUILDING
  - EXISTING BUILDING / NO WORK



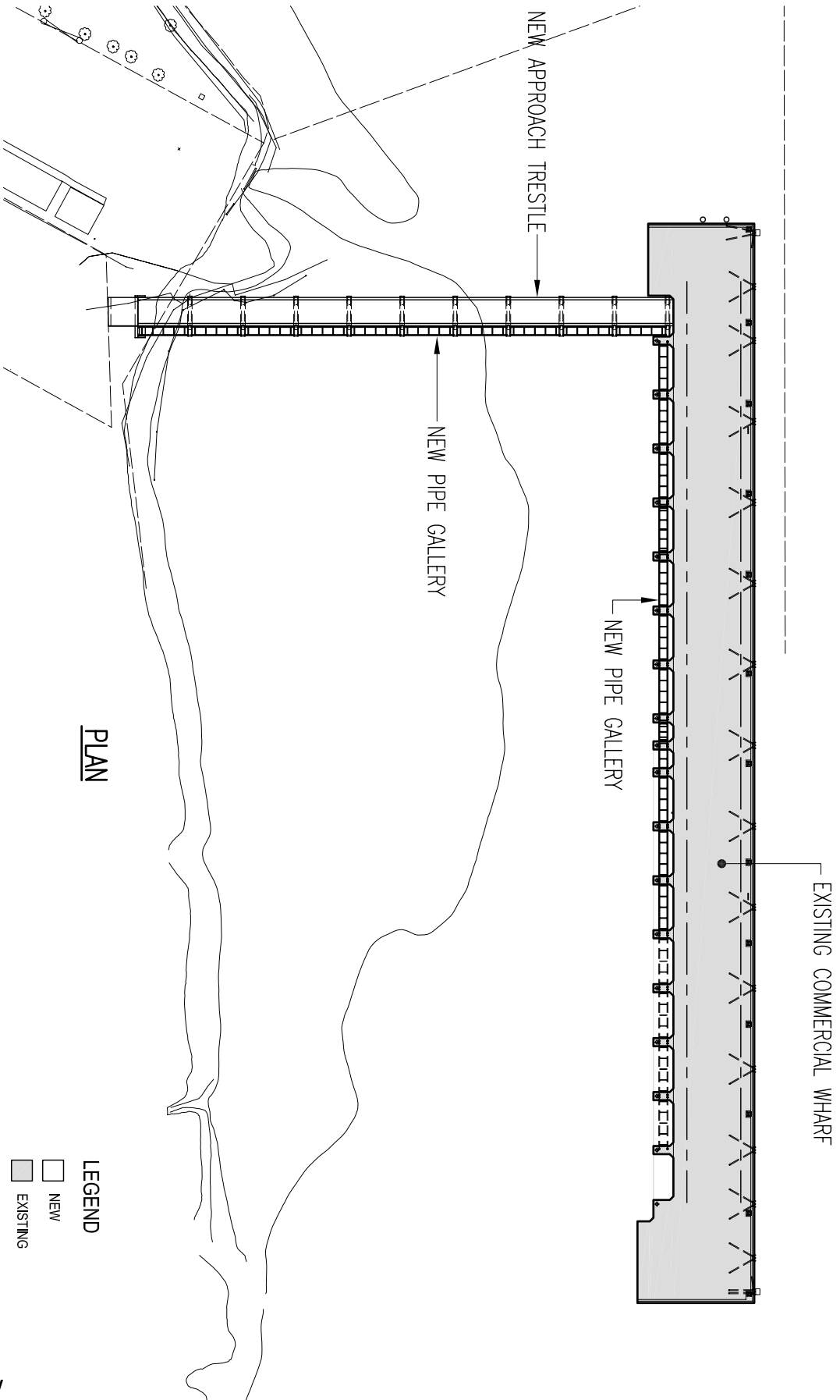
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- LEGEND**
- NEW
  - EXISTING



**PLAN OF ACCESS JETTY**



PLAN

- LEGEND**
- NEW
  - EXISTING

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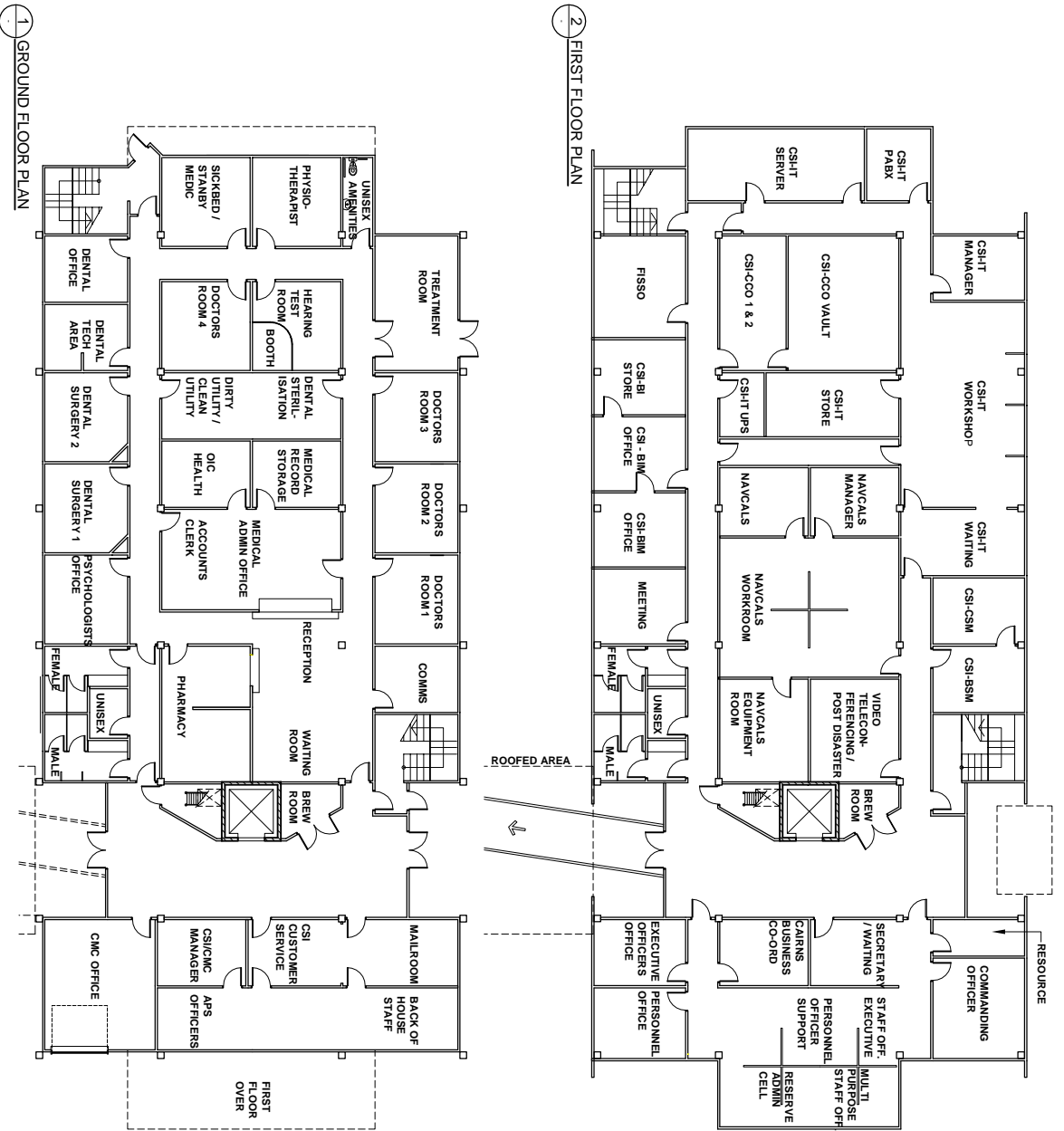
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HMAS CAIRNS REDEVELOPMENT  
CENTRAL BUILDING GROUND & FIRST FLOOR - SD-013-100

SCALE 1:100 @ A1

PWC ISSUE 04  
24.01.06



**LEGEND**

□ NEW / REFURBISHED BUILDING

■ EXISTING BUILDING / NO WORK

LEGEND:

APS	AUSTRALIAN PUBLIC SERVICE
CCO	CONSEC CUSTOMER OFFICE
COMS/C	COMMUNICATION / SECURITY
CSI	CORPORATE SERVICES
-BI	& INFRASTRUCTURE
-BIM	BASE INFRASTRUCTURE MANAGER
-BSM	BASE SERVICES MANAGER
-CSM	CUSTOMER SERVICE MANAGER
-TSM	TECHNOLOGY SUPPORT
TI	TELEPHONE / SITE SYSTEMS
FISSO	FIRE SUPPORT OFFICE
NAVCALS	NAVAL COMMUNICATIONS AREA
LOCAL STATION	LOCAL STATION
OFFICER IN COMMAND	OFFICER IN COMMAND
UNINTERRUPTED POWER SUPPLY	UNINTERRUPTED POWER SUPPLY
OIC	
UPS	



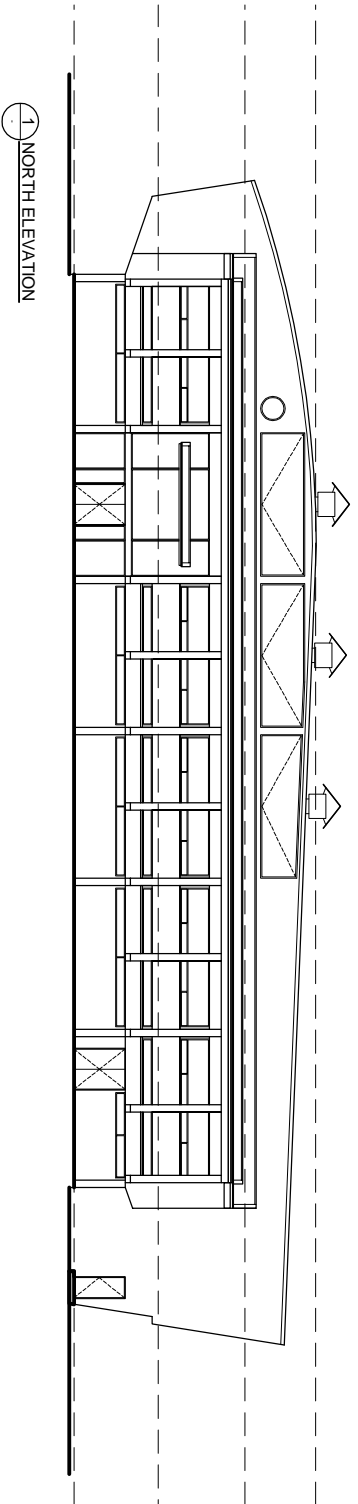


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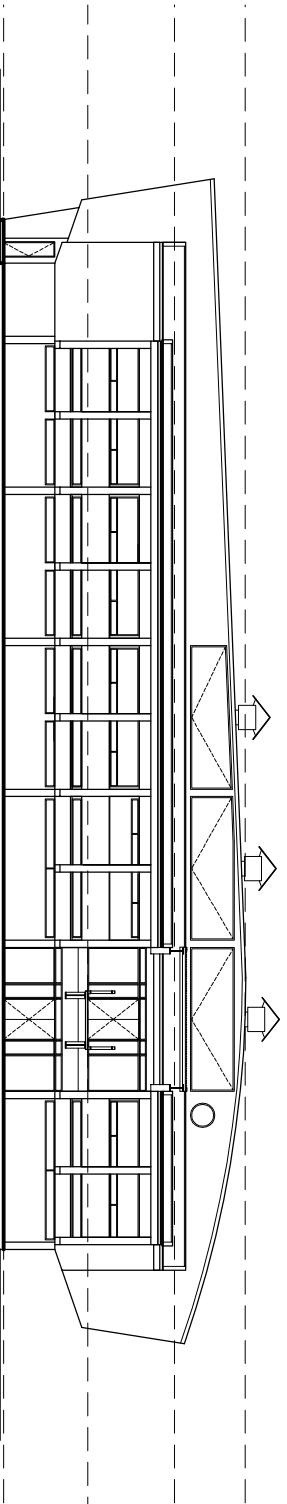
**HMAS CAIRNS REDEVELOPMENT**  
CENTRAL BUILDING ELEVATIONS - SD-013-120

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SCALE 1:100 @ A1

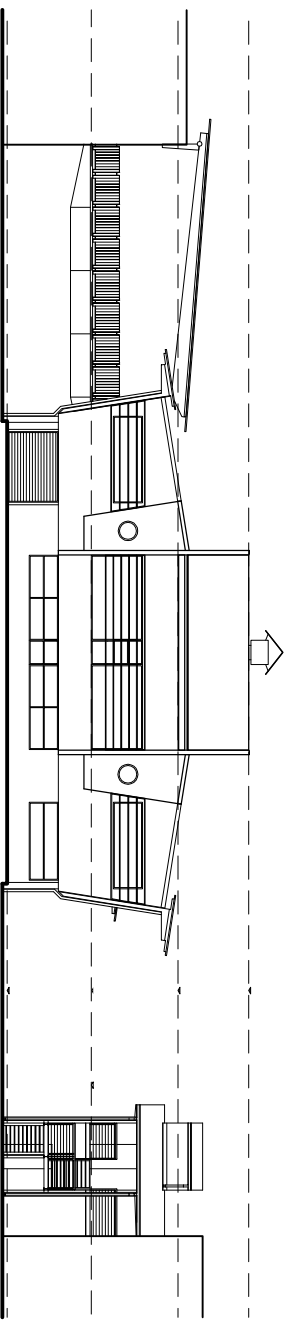
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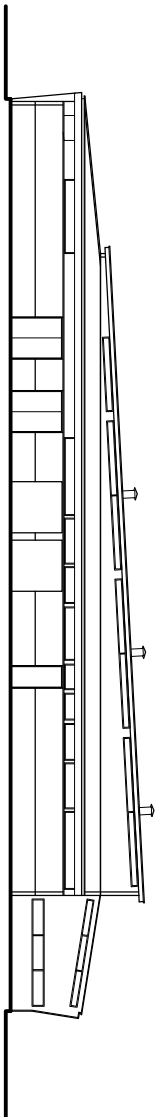
1 NORTH ELEVATION



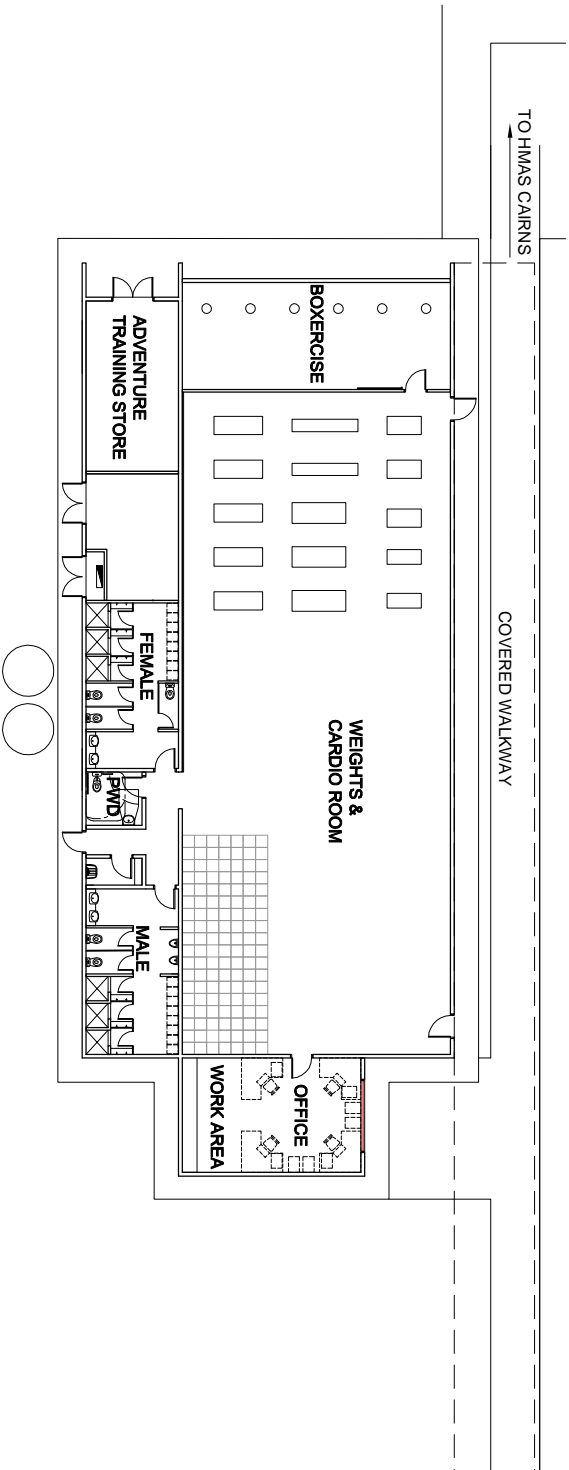
2 SOUTH ELEVATION



3 EAST ELEVATION



- LEGEND**
- NEW / REFURBISHED BUILDING
  - EXISTING BUILDING / NO WORK
  - PWD PERSON WITH DISABILITY



**HMAS CAIRNS REDEVELOPMENT**  
FITNESS CENTRE GROUND FLOOR & ELEVATION - SD-014-100



PWC ISSUE 04  
24.01.06

