



Australian Government

Department of Defence

HMAS CERBERUS REDEVELOPMENT

Western Port Bay, Victoria

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

Canberra, Australian Capital Territory

June 2017

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HMAS CERBERUS REDEVELOPMENT PROJECT

Identification of the Need

1. HMAS *Cerberus*, located at Crib Point approximately 75 kilometres south of Melbourne on Western Port Bay, covers over 1,500 hectares and is the principal training establishment for the Royal Australian Navy (RAN). A locality and site location plan of *Cerberus* is provided at Attachments 1 and 2.
2. While the primary role of *Cerberus* has always been initial RAN training, with the establishment of three tri-service schools at *Cerberus* during the last three decades, this role has been extended to training Australian Defence Force (ADF) personnel. *Cerberus* currently accommodates the following training:
 - a. Navy Recruit School;
 - b. Navy Marine and Weapons Electrical Engineering and Electronics;
 - c. Tri-Service Dental;
 - d. Navy Gunnery, Seamanship, Ship Survivability and Survival at Sea;
 - e. Tri-Service Catering;
 - f. Navy Maritime Logistics;
 - g. Tri-Service Physical Instructor; and
 - h. Navy Maritime Communications and Information Systems.

Existing Infrastructure Condition, Capacity and Compliance Issues at *Cerberus*

3. In 2013, an engineering assessment on the condition, capacity and compliance of the facilities and infrastructure at *Cerberus* identified a number of very high and high risks. With significant parts of the engineering services infrastructure at *Cerberus* being almost 100 years old, these services, particularly the in-ground services, do not meet contemporary standards, are in poor condition, or are under capacity.
4. In addition, many of the existing training, support and living-in accommodation (LIA) facilities including heritage listed buildings are in poor condition, do not meet contemporary working, training or living standards, or are not fit for their current purpose.

Background

HMAS *Cerberus* is an Enduring Defence Base

5. The RAN has operated at *Cerberus* since 1920, with construction commencing on the site in 1913. Significant redevelopments in the 1980s and 1990s saw the progressive replacement of facilities to support the transfer of RAN Technical Training from HMAS *Nirimba* and consolidation of various ADF training programs at *Cerberus*. *Cerberus* has had limited funding for new and upgraded facilities and infrastructure since the 1990s except for the security upgrade works completed in 2015.
6. *Cerberus* has a permanent workforce of approximately 980 uniformed, Defence civilian and contracted staff. In addition, there are approximately 6,000 training places per year over 300 courses ranging in duration from one week to one year with an average of 1,100 trainees at any one time throughout the year.
7. In late 2006, the Minister for Defence endorsed the outcomes of the Review of Disposition of Future Navy Training and announced that the functions performed at *Cerberus* would be retained at that establishment.

Identified Issues with Existing Facilities and Infrastructure at *Cerberus*

8. Facilities and infrastructure shortcomings at *Cerberus* limit the overall effectiveness and efficiency of the training programs with a knock on impact to ADF operational capability. The progressive deterioration and unreliability of engineering services and supporting utilities and continued use of ageing and ineffective facilities introduce increased pressures on Defence, making it difficult to ensure delivery of training capability output.
9. In addition, the aged non-compliant infrastructure and facilities at *Cerberus* presents major Workplace Health and Safety and Environmental risks and will accelerate the annual maintenance liability if not addressed in the near future. Navy and other ADF personnel are currently housed in sub-standard facilities, which impacts morale, recruitment, retention and reputation. This redevelopment proposal will rectify these identified issues by addressing the following infrastructure and facilities at *Cerberus*:

a. **Engineering Services Infrastructure.**

- (1) **Water Supply.** The capacity of the existing water supply network has been exceeded, and the network and pump stations are unable to meet pressure and flow requirements. A significant percentage of the pipe network is in a poor condition and while the network serves both potable domestic and fire-fighting requirements, it does not provide adequate pressure for fire-fighting.
- (2) **Electrical Services.** The existing electrical network is in a poor condition. Many of the high voltage substations, ring main units, transformers and low voltage distribution boards do not meet current Australian or Defence's standards. Non-compliant pedestrian and street lighting presents a safety risk for personnel moving to and from their place of work or training early in the morning and late in the evening.
- (3) **Sewerage Services.** The condition of the sewerage network has been assessed as poor, with extensive sections of inadequate or unserviceable sewerage mains. Two of the major pump stations are in a poor structural condition. During wet weather, all of the pumps are required to run continually to keep up with inflows. The sewerage pump stations do not meet current Australian standards for safe access, signage, electrical installations and rising main operation. The capacity of the trade waste system is at its limit.
- (4) **Stormwater Network.** The condition of the stormwater network has been assessed as poor with sections of inadequate or unserviceable stormwater mains. While the stormwater network pits themselves meet current standards for safe access, the pipe sizes do not meet current Australian standards for capacity, size and configuration. There are areas within *Cerberus* where the network cannot discharge a one in ten year storm event, causing local flooding.
- (5) **Information and Communications Technology (ICT) Services.** The capacity of the existing network including Defence voice and restricted communications networks has been exceeded, with key parts of the system unable to support modern technology requirements. In parts, the voice and secure networks are non-compliant with the Australian and Defence security, electrical and earthing standards. The existing pit and pipe network is in poor condition and key segments have no capacity for future expansion. There are also a substantial

number of ICT pits that contain asbestos that require remediation and some pits that are no longer serviceable and compliant with current Defence standards.

- (6) **Gas Network.** The gas network is in good condition, however some sections, including many above ground fittings and fixings, are showing evidence of corrosion. A cathodic protection system is required. The above ground gas meters and regulator assemblies are non-compliant with current Australian standards. The existing gas network does not have any capacity for expansion.
- b. **Logistics Facilities.** Building 216, the current clothing store, was constructed circa 1959 and Building 79, the current naval stores building, was constructed in 1964. Building 216 has functional inefficiencies as forklifts cannot be used in the building and the low-density racking is inefficient and does not meet modern storage practices. Building 216 has inadequate goods receiving facilities and also contains asbestos. It is located in a high pedestrian traffic area and some distance away from the Base entrance which adds to traffic and pedestrian safety issues. Building 79 also contains asbestos, has inadequate goods receiving facilities, is in poor condition and is dislocated from the other stores facility (Building 216).
- c. **RAN School of Survivability and Ship Safety (RANSSSS).** The existing practical training units were built in 1984 and 1994 to provide fire fighting and leak stop repair training. The current state of the practical trainers is poor, with some parts, including the second floor of the gas diesel fire fighting unit, condemned due to structural failures. The lack of modern safety systems also increases the requirements for supervision during training.
- d. **Living-in Accommodation (LIA).** The existing LIA includes cabins of various configurations to accommodate a total of a 2,523 staff and trainees. The shortcomings in LIA include:
- (1) **Recruit School LIA.** The Recruit School's LIA is provided in Buildings 217 – 220 inclusive. The bathrooms and laundry facilities are in poor condition. The existing natural ventilation provided via operable windows in the sleeping quarters (cabins) is inadequate for summer conditions. The support facilities, which include office space for twelve staff members and a training room, have been converted from existing cabins and provide poor working conditions for these staff.

- (2) **Category School LIA.** The Category School's LIA are provided in Buildings 221 - 226 inclusive. These buildings were originally designed as four berth cabins and were adapted to single room occupancy in 1992 and later modified for dual occupancy. Bathrooms and wet areas are in poor condition. The existing natural ventilation is inadequate for summer conditions.
 - (3) **Officer's LIA.** The *Cerberus* Heritage Management Plan classifies Buildings 152 and 153 as not meeting contemporary accommodation standards and have been assessed as beyond economical repair. The buildings are intrusive adjacent the Commonwealth heritage-listed Wardroom, Building 151, which was constructed in 1915.
 - (4) **Junior Sailor's LIA.** The cabins in Building 451 do not have adequate passive solar protection resulting in large heat gains through the windows and are inadequate for summer conditions.
- e. **Messing Facilities/Galleys.** Two buildings provide messing facilities for Officers and Junior Sailors at *Cerberus*. The Wardroom, Building 151, provides Officers' messing, and Building 523 (circa 1997) serves Junior Sailors and Recruits. The galley in Building 523 is the production galley. Both galleys are in poor condition, equipped with ageing and in some cases obsolete equipment which is unable to be repaired. The layout of the production galley in Building 523 and the coverage of hand wash basins is not compliant with current Australian standards for food preparation and handling and is poorly located for safe service deliveries and disrupts nearby accommodation.
- f. **ADF Engineering Training Facilities.** Engineering and technical training courses are currently being undertaken in 14 buildings, 12 of which are grouped in the south-east portion of the precinct. The other two buildings, Buildings 188 and 189, are Commonwealth heritage-listed and are located some distance away. All the facilities provide inadequate working and learning environments as technical-based classrooms. Workshops and training aids were established in ad-hoc arrangements as the training requirements grew over the last three decades.
- g. **ADF Catering and RAN Maritime Logistics Schools and Personnel Support Facilities.** The ADF School of Catering and RAN Maritime Logistics School is located in the Commonwealth heritage-listed Building 187. Other ADF Training and Personnel Support functions are located in Buildings 188, 189, 190 and 192 which are also

Commonwealth heritage-listed. These buildings do not comply with various contemporary standards addressing fire egress stairs or compliant fire hydrant coverage and disabled access. The existing heating, ventilation and air-conditioning (HVAC) services in Buildings 187, 188 and 189 do not meet current standards.

- h. **ADF Physical Training School (ADFPTS) and Running Track.** Building 296 (constructed circa 1982), which was originally designed as a gymnasium, has been adaptively reused and expanded to accommodate both the ADFPTS and *Cerberus* Sport and Fitness Centre. The modified facilities do not meet functional requirements of the school as it needs to be separated from the Sport and Fitness function, to avoid training programs being disrupted. The classroom spaces, storage areas, offices, change rooms and amenities created within the facility were built in 1997 to support the ADFPTS are inadequate to meet the school's current needs. Environmental controls and student workstations are also inadequate. In addition to the school's facilities, the existing gravel running track (constructed circa 1934) is in poor condition and needs to be refurbished.
- i. **Survival at Sea Training.** Survival at Sea training is currently undertaken at the existing wharf within Hann's Inlet, depending on weather conditions and tidal states. These conditions provide an inadequate and potentially unsafe training environment for staff and trainees. The variable weather conditions limit available time to train and preclude capsizing training from Rigid Hull Inflatable Boats being undertaken. Escape training simulating larger ships is also not possible, significantly limiting the effectiveness and comprehensiveness of the training program.

Description of Proposal

- 10. The works proposed to be delivered as part of the *Cerberus* Redevelopment project will upgrade and refurbish existing critical shortcomings in the engineering infrastructure and key training and support facilities by addressing capacity, condition, compliance and functional deficiencies in those facilities and engineering systems.
- 11. The proposed works include:

- a. the upgrading of water (1)¹, electrical (2), sewerage (3), stormwater (4), ICT (5) and gas (14) infrastructure; and
 - b. constructing a new Logistics Precinct (6);
 - c. constructing a new RAN School of Survivability and Ship Safety (7);
 - d. refurbishing existing buildings for Recruit School, Category School and Junior Sailor and Officer's LIA (8);
 - e. refurbishing the Wardroom galley and replacing the Junior Sailors' galley (9);
 - f. refurbishing and consolidating the ADF Engineering Training Faculty's facilities for use as an Engineer Officer and Senior Sailor Training Centre, constructing a new Electronic Technician / Torpedo Training building and constructing a new Marine Technician training building (10);
 - g. upgrading the ADF Catering and RAN Maritime Logistics Schools and the Personnel Support program's facilities (11);
 - h. upgrading the ADF Physical Training School, Fitness Facilities and Running Track (12);
 - i. demolishing dilapidated and redundant buildings (13); and
 - j. constructing a new Survival at Sea training facility (15).
12. *Cerberus* is divided into distinct zoning to ensure functionality is maintained on the Base and that there is a separation of functions. The Zone Plan is provided at Attachment 3. Plans showing the proposed building works are provided at Attachment 4.

Options Considered to Fulfil the Identified Need

13. To determine the most appropriate infrastructure solutions, Defence undertook master planning and design activities that included extensive user consultation meetings and investigations to establish the functional requirements for each element of the proposed

¹ The project element number is shown in brackets for easy reference.

redevelopment location. The proposed building works provided opportunities to adaptively re-use existing facilities, consolidate functions and reduce the footprint of the built environment on the Base.

14. Where appropriate and cost effective, adaptive re-use solutions were considered the most appropriate solution. However, a number of the facilities were not suitable for refurbishment as the extent of works required to meet contemporary standards, Building Code and Defence engineering compliance requirements could not be completed as a cost effective activity.
15. A 'Do Nothing' option was considered but rejected as not meeting the requirements of the project and presents significant business continuity, compliance, work health and safety risks.
16. Three options were investigated to address the facilities and engineering infrastructure issues at *Cerberus*.

Option One - Minimal Refurbishment

17. This option does not address the very high and high risks to ADF and RAN training outcomes and supporting infrastructure. This option fails to address all key issues and provide fit for purpose facilities to support the ADF's and RAN's capabilities.

Option Two - Optimal Refurbishment

18. This option addresses the very high, high and medium (trending high) risks associated with the shortcomings in the training and support facilities, and critical engineering infrastructure. It will meet the aim of the project and represents best value for money.

Option Three - Complete Refurbishment

19. This option addresses all of the very high, high and medium risks associated with the engineering infrastructure and the shortcomings in existing support facilities on the Base. The additional scope in this option, as compared to Option Two, can either be deferred to be addressed in future estate management programs or be accepted as currently not cost effective.

Preferred Option

20. Option Two was assessed as the preferred option as it addresses the Defence's highest priorities for the redevelopment, reduces key risks to ADF and RAN training capability and

infrastructure to an acceptable level, meets the project aim and represents the best value for money solution through:

- a. refurbishing or upgrading critical engineering infrastructure (power, emergency power, communications, fire, water, sewer, stormwater, fuel, gas and supervisory systems) to meet current Defence standards;
- b. redressing the significant shortcomings in critical training facilities;
- c. addressing the significant risks to the local environment arising from the poorly performing stormwater system;
- d. improving the overall environmental outcomes for *Cerberus* by improving the capacity of Defence's facilities engineering staff to supervise and control the operation of engineering systems, and by introducing water recycling;
- e. repairing, replacing or upgrading key parts of the existing sewerage and stormwater infrastructure that is not performing effectively; and
- f. meeting the aim of the project to provide fit for purpose facilities and infrastructure to support the ADF's and RAN's operational and training capabilities.

Environment and Heritage Assessment

Environment

21. All proposed works will be undertaken in accordance with Commonwealth Environmental Policies. The Initial Environmental Review completed for the redevelopment proposal considered the proposed works against the obligations of the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* (Cth). The review determined that a referral under the Act was not required for this project and that the environment and heritage risks, including indigenous and non-indigenous heritage considerations were minor and manageable through the development of a site-specific Construction Environmental Management Plan.

Asbestos

22. Defence's Asbestos Register for *Cerberus* has recently been reviewed and updated and will guide the identification and removal of asbestos during the construction phase of the project.

23. The scope of this project includes the upgrading of existing building assets that contain asbestos. Furthermore, some of the original water pipes identified for replacement are constructed from materials that contain asbestos. Any asbestos removal and disposal activities will be conducted in accordance with the applicable State legislation and the appropriate environmental controls and will be addressed in the Construction Environmental Management Plan.

Contamination

24. The scope of the project also includes the removal of facilities that have been used for fire training activities that utilised Aqueous Film Forming Foam. Extensive investigation of the training ground and the associated infrastructure has identified the extent of contamination by per- and poly-fluoroalkyl substances (PFAS) and other contaminants on the site. A comprehensive remediation plan has been developed and will involve encapsulation of the contaminated materials in a purpose built storage cell on the existing site.
25. The potential for other forms of contamination at other redevelopment sites is assessed as low. Any contaminated material found during the construction phase will be removed and disposed of in accordance with Defence Environmental Policies and the applicable State legislation, as required by the Construction Environmental Management Plan for the Project.

Heritage

26. Heritage issues will be managed in accordance with the *Cerberus* Heritage Management Plan. Proposed works will have minimal impact on heritage values. The Project will improve the heritage values at *Cerberus* by removing intrusive buildings. Proposed refurbishment and upgrade works will significantly protect existing heritage values at *Cerberus* and will ensure the buildings long term continued use.

Key Legislation

27. The following key legislation is relevant to this project:
- a. *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*;
 - b. *Building and Construction Industry (Improving Productivity) Act 2016*;
 - c. *Work Health and Safety Act (WH&S) 2011 (Cth)*;

- d. *Occupational Safety and Health Act 2004 (Vic)*;
- e. Occupational Health and Safety Regulations 2007 (Vic); and
- f. *Disability Discrimination Act 1992 (Cth)*.

Applicable Codes and Standards

- 28. The design of the proposed works will comply with all relevant and current Defence standards, Australian standards, codes and guidelines including, but not limited to:
 - a. National Construction Code - Building Code of Australia;
 - b. Defence Manual of Infrastructure Engineering – Electrical;
 - c. Defence Manual of Fire Protection Engineering;
 - d. Defence Manual of Infrastructure Engineering – Bulk Fuel Installation - Design;
 - e. Defence Estate Quality Management System; and
 - f. Defence Security Manual.
- 29. An accredited building certifier has been engaged to certify the compliance of the design and will be engaged to certify compliance of the completed works.

Consultation with Key Stakeholders

- 30. Defence has engaged in extensive consultation with the relevant Defence users and technical authorities to develop the requirements and proposed solutions for this proposed redevelopment. Defence has then developed a comprehensive consultation and communication strategy that recognises the importance of providing local residents, statutory authorities and other interested stakeholders, including special interest groups, an opportunity to provide input into, or raise concerns relating to the proposed works.
- 31. As part of this strategy, the following communication methods have been or will be adopted:
 - a. letterbox drops to neighbouring residential areas confirmed as affected by the construction works;
 - b. community information sessions; and

- c. local newspaper advertisements.
32. In implementing this strategy, consultation will occur, with the following key external stakeholders:
- a. the Hon Mr Greg Hunt MP, Federal Member for Flinders;
 - b. the Hon Mr Neale Burgess MP, State Member for Hastings;
 - c. Mornington Peninsula Shire Council;
 - d. Hastings Chamber of Commerce,
 - e. local indigenous groups, namely Boon Wurrung and Bunurong,
 - f. local and affected utility authorities including United Energy, South East Water, Australian Gas Networks, Telstra, VicRoads, and the Country Fire Authority; and
 - g. the Industrial Capability Network (ICN).
33. Defence plans to convene at least two community information sessions for the project prior to the conduct of the Parliamentary Standing Committee on Public Works Hearing.

Purpose of the Works

Project Objective

34. The purpose of this project is to redress existing shortcomings in the engineering infrastructure and key training and support facilities at *Cerberus*. This redevelopment should enable the upgraded engineering infrastructure and key training and support facilities to be certified as ‘fit for purpose’ to support the ADF’s and RAN’s operational and training capabilities at *Cerberus* for at least two decades.

Detailed Description of the Proposal

Project Element 1 – Upgrade the Water Supply Network

35. The proposed upgrading of the water supply network include:
- a. **Constructing a new Potable Water Storage.** Providing the new potable water storage will involve constructing a new 1.5 day potable water reserve storage tank providing

750 kilo litre of water storage, demolishing the existing potable water storage tank and removing the redundant chlorination plant and providing backflow prevention at the proposed storage tank.

- b. **Remediating the Potable Water Supply Mains.** With the exception of the potable water mains constructed in 2004, all the remaining potable water service mains downstream from the existing meter will be replaced. This proposed works include replacing about 7,500 lineal metres of water mains and all valves in those mains.
- c. **Constructing a new Fire-fighting Water Network.** The proposed new fire-fighting water service will include constructing two new firewater storage tanks adjacent to western entry gate providing 1,100 kilo litres of water storage. The works also include constructing a new fire ring main network including 1,300 lineal metres of fire mains and pump house to house both the fire-fighting and potable water pumping equipment and connecting all buildings requiring a fire service and the external hydrant coverage to the new system.

36. A plan of the proposed water supply network is provided within the *Cerberus* Confidential Cost Estimate as detailed at Attachment 5.

Project Element 2 – Upgrade the Electrical System

37. The proposed upgrading of the electrical infrastructure upgrading works includes:
- a. **Constructing a new Intake Switching Station.** A new Intake Switching Station (ISS) will include new electrical switchgear to accommodate the incoming high voltage (HV) dual feeder from United Energy. The proposed ISS will provide spare capacity to support HV ring main networks to comply with the requirements of Defence's Manual of Infrastructure – Electrical Engineering. The proposed works include diverting the existing power supply to the new ISS (work by United Energy) and decommissioning and removing the switchgear in the existing ISS. New power factor correction equipment will also be installed.
 - b. **Replacing Substations.** Seventeen substations, including the ring main units and HV switchgear will be replaced. Four transformers will be upgraded. The cabling directly associated with the replacement or upgrading of the substations will be replaced. The local emergency generator (LEG) servicing the Communications Centre (Building 200) will be replaced.

- c. **Improving Street and Pedestrian Lighting.** New street and pedestrian lighting including poles, light fittings, cabling, switchboards and controls to high risk areas where trainees march at night, will be installed.
 - d. **Improving Electrical Reticulation.** Existing Defence owned overhead HV will be replaced with the underground cable of about 9,750 lineal metres. The low voltage (LV) services to the north of Cook Road will also be replaced with the underground of about 2,700 lineal metres of LV cable. A new dual ring HV network will also be constructed.
38. A plan of the proposed electrical system is provided within the *Cerberus* Confidential Cost Estimate as detailed at [Attachment 6](#).

Project Element 3 – Upgrade the Sewerage Network

39. The proposed upgrading of the sewerage network works includes:
- a. **Replace Sewerage Pumping Stations.** Replacement sewer pumping plant will be constructed adjacent to existing sewer pumping stations one and four. Sewer pumping station three will be replaced in a new location north of the proposed RAN School of Survivability and Ship Safety site. Sewer pumping stations one, four, seven and eight will be decommissioned. The sewer rising mains associated with pumping stations one, three and four will be remediated.
 - b. **Replace Primary (Trunk) Sewer Mains.** The existing deep sewer mains and associated infrastructure to downstream pump stations will be remediated. About 4,000 lineal metres of new sewer main, 150 new manholes will be installed and 50 existing access chambers will be decommissioned and reconstructed to support the remediation of the sewer. Non-compliant stormwater and downpipe connections to the sewer mains will be made good and reconnected to the local stormwater infrastructure.
40. A plan of the proposed sewerage network is provided within the *Cerberus* Confidential Cost Estimate as detailed at [Attachment 7](#).

Project Element 4 – Upgrade the Stormwater and Drainage Network

41. The proposed upgrading of the stormwater and drainage network includes:
- a. **Improving Stormwater Outfall Quality.** Four bio-retention basins will be constructed on key stormwater mains prior to the outfalls to the adjacent wetlands. One stormwater

retention separator unit to capture hydrocarbons will be constructed where the local topography precludes the construction of bio-retention basins.

- b. **Improving Stormwater Trunk Infrastructure.** Collapsed areas of the storm water trunk infrastructure will be repaired. About 400 lineal metres of stormwater mains and 526 stormwater pits will be reconstructed and five new stormwater pits will be installed.

- 42. A plan of the proposed stormwater and drainage network is provided within the *Cerberus* Confidential Cost Estimate as detailed at [Attachment 8](#).

Project Element 5 – Upgrade the Information and Communications Technology (ICT) Infrastructure

- 43. The proposed upgrading of the ICT infrastructure includes:

- a. **Upgrade the Existing ICT Infrastructure.** About 100 non-compliant pits will be upgraded and 80 asbestos pits will be replaced. About 6,500 lineal metres of ICT conduits and 7,500 lineal metres of single mode cable and associated infrastructure will be installed to service the proposed new facilities and to provide capacity for future expansion. Existing distribution nodes in Buildings 53, 190 and 459 will be relocated and upgraded with interconnections to the core nodes in Buildings 200 and 108. Racks, switches and cables will be installed to establish a Defence Engineering Services Network for the monitoring and control of the new engineering services provided in all new and refurbished buildings. A new Building Management System (BMS) head end unit will be provided in the distribution room of Building 190, and the BMS computer provided in Building 300 and connected to all of the refurbished buildings. All new building metering will be connected to a new reporting system. The 13 existing Security Alarm System panels will be upgraded to Type 1A panels to comply with the current Defence standards.
- b. **Improve the Capacity of the Existing ICT Network.** 6,300 lineal metres of existing multi-mode optical fibre cables will be replaced with new single mode fibre cables.
- c. **Rectify ICT Network Compliance.** Existing compliance issues with the Defence Voice Network (DVN), Defence Restricted Network (DRN) and Defence Secret Network (DSN) will be rectified. About 50 building lead in conduits will be replaced to meet current standards, 45 ICT cabinets will be replaced with new ICT cabinets to meet

current standards, 50 power supplies to ICT cabinets will be rewired and one DVN rack will have earthing installed.

44. A site plan of the proposed Upgrade of the ICT Infrastructure is provided within the *Cerberus* Confidential Cost Estimate as detailed at Attachment 9.

Project Element 6 – Construct a new Logistics Precinct

45. The proposed new precinct works include:

- a. **Site Clearance Works.** The Estate Management and Operational Services (EMOS) Contractor will be relocated from their existing buildings to Building 300 and provide a new EMOS workshop. This will allow demolition of 13 old buildings. The proposal includes decommissioning of sewerage pumping station seven and existing site infrastructure.
- b. **Construct a new Logistics Building.** Construct a new, purpose-built, logistics depot, with loading and hardstand areas. This building is proposed to be located near the western entry gate, north of Cook Road. Existing functions to be accommodated include the Furniture Store, Bedding Store, Clothing Store (including the tailor), the Naval Store and the ICT Store.

46. A plan of the proposed Logistics Precinct is provided at Attachment 10.

Project Element 7 – Construct a new RAN School of Survivability and Ship Safety

47. The proposed RAN School of Survivability and Ship Safety works include:

- a. **Construct a new Training Ground and Support Facility.** A new training ground and support facility for RAN School of Survivability and Ship Safety will be constructed on a brownfield site north of the existing Senior Sailor LIA zone. The proposed training ground facilities will include a simulator control building, one repair base, a mask test training facility and an associated four zone cleansing station, a gas-fired diesel fire-fighting simulator, a dynamic leak stop and repair simulator, a portable extinguisher practical training fire pit, a power tool training shelter and an undercover training shelter. Support facilities will include administration offices for staff, classrooms, amenities for staff and trainees and a workshop.

- b. **Decommissioning and Demolition of the Existing Facilities.** Following handover of the new facility to the school, the existing training ground and support facilities, including the adjacent Mask Test Facility and the bulk gas storage tank will be decommissioned and demolished.
- c. **Site Remediation Works.** An encapsulation cell will be constructed on the existing training ground site to safely store all of the contaminated soil and demolition materials. The cell will be fully lined and include a leachate management system. The cell will be monitored through ground water monitoring wells.

48. A plan of the proposed RAN SSSS is provided at [Attachment 11](#).

Project Element 8 – Refurbish Living in Accommodation (LIA)

- 49. **Recruit School LIA.** The proposed refurbishment works involve staging a refurbishment of Buildings 217 to 220. The proposed works include upgrading the bathroom and laundry facilities, installing fans in cabins and providing passive solar protection to windows on the east and west façades. The existing office accommodation will also be refurbished.
- 50. **Category School LIA.** The proposed works involve staging a refurbishment of Buildings 221 to 226. The proposed refurbishment works will include providing kitchenettes in common rooms, installing fans in cabins, providing DDA compliant access to Buildings 222 and 226 via a new ramp and providing passive solar protection will be applied to windows on the north façade of building 226, and to the west façades of Buildings 221 to 225.
- 51. **Officer LIA.** The proposed works involve adapting existing Building 187 to provide 54 cabins to comply with Defence’s Officer Training Level 1 accommodation standard. These proposed works will also include the demolition of two existing LIA blocks, Buildings 152 and 153.
- 52. **Junior Sailor LIA.** The proposed minor refurbishment works involve providing passive solar protection to the north and west facing windows to Building 451.
- 53. A plan of the proposed LIA refurbishment is provided at [Attachment 12](#).

Project Element 9 – Refurbish the Wardroom Galley and Junior Sailor’s Galley

54. **Wardroom Galley.** The proposed works for the Wardroom Galley includes refurbishing the galley to service the Officer’s messing requirements and upgrading the grease arrestor system. New equipment will be installed in the galley.
55. **Junior Sailor’s Galley.** The proposed works for the Junior Sailor’s Galley includes constructing a new galley adjoining the existing Junior Sailor’s cafeteria. The existing galley area will be adaptively reused to accommodate some of the retail functions.
56. The proposed works will provide a new heavy vehicle loading and service area to separate pedestrian and vehicle traffic in the area.
57. A plan of the proposed Wardroom and Junior Sailors Galley is provided at [Attachment 13](#).

Project Element 10 – Refurbish and Consolidate ADF Engineering Training Facilities

58. **Engineer Officer and Senior Sailor Training Centre.** The proposed refurbishment works will provide new offices and training classrooms, including new furniture, fittings and equipment to meet the requirements of the Engineer Officer and Senior Sailor Training Facility. The proposed scope also includes providing additional car parking.
59. **Electronic Technician and Torpedo Training Building.** The proposed new Electronic Technician and Torpedo Training Building (ET building) inclusive of car parking, and relocating the existing Torpedo Training functions (Building 482), including the triple barrel torpedo tube training unit to the new ET building. Building 482 will be demolished.
60. **Marine Technician Training Building.** The proposed new Marine Technician Training Building will be constructed adjacent to Building 55. In addition to the new building, the proposed works include additional car parking works, demolishing Building 72 and relocating some functions from Building 520, into the new Marine Technician Training building.
61. A plan of the proposed ADF Engineering Training Facilities is provided at [Attachment 14](#).

Project Element 11 – Upgrade of Facilities for ADF Catering School and RAN Maritime Logistics School and Personnel Support Facilities

62. **School Facilities.** The proposed works involve a complete refurbishment of Building 188 to fully comply with the relevant standards including the Building Code of Australia, the

Disability Discrimination Act 1992 and Defence's Manual of Fire Protection Engineering.

The proposed works will provide new offices and classrooms, including new furniture, fittings and equipment, a new standalone wharf simulator building to the west of Building 188, and upgrading the existing on grade gravel car park to an asphalt car park with lighting.

63. **Personnel Support Facilities.** The proposed works involves a complete refurbishment of existing Personnel Support Building 189 to fully comply with the relevant standards including the Building Code of Australia, the *Disability Discrimination Act 1992* and Defence's Manual of Fire Protection Engineering. The proposed works will provide new offices and classrooms including new furniture, fittings and equipment within Building 189 and upgrading the existing on grade gravel car park to an asphalt car park with lighting.
64. **Training Systems School, Governance and Canteen Facilities.** In addition to the upgrading of Buildings 188 and 189, the external facades of Buildings 190 and 192 will be repaired.
65. A plan of the proposed ADF Catering and RAN Maritime Logistics Schools and Personnel Support Facilities is provided at Attachment 15.

Project Element 12 – Construct and Upgrade the ADF Physical Training School, Fitness Facilities and Running Track

66. The proposed works involve constructing a new facility for the ADF Physical Training School to the north of the existing Sports and Recreation Centre. The proposed facility will include office accommodation, classrooms, staff and trainee ablutions, change rooms and an indoor multi-purpose learning area. In addition to these works, the existing outdoor netball court will be resurfaced and the existing scoria running track will be upgraded with new lighting, reconfigured to provide six lanes and resurfaced with a new synthetic surface. A plan of the proposed works to the ADF Physical Training School, Fitness Facilities and Running Track is provided at Attachment 16.

Project Element 13 – Demolish Redundant Facilities

67. In addition to the buildings proposed for demolition as part of each project element, the proposed works in this project element include demolition of the old redundant Naval Stores / ICT contract (Building 79) to replace it with 40 car parks and removing the gun turret for storage or relocation by Navy and then demolition of the supporting slab. A plan of the proposed demolition works is provided at Attachment 17.

Project Element 14 – Upgrade the Gas Reticulation System

68. This project element involves repairing the existing gas reticulation network. The proposed works include replacing the protective PVC sheathing and associated infrastructure where damaged, installing new cathodic protection units to protect the network's branch lines and upgrading the gas meters. A plan of the proposed works is provided within the *Cerberus Confidential Cost Estimate* as detailed at Attachment 18.

Project Element 15 – New Survival at Sea Training Facility

69. The construction of the proposed new Survival at Sea Training Facility will include constructing new indoor pool for practical training. This pool facility will be capable of simulating a range of realistic sea and atmospheric conditions. In addition to the training pool, the facility will include storage areas for training equipment, a laundry and amenities for staff and students, an LHD marine evacuation system chute, an office area for the instructors, classrooms and a plant room. A plan of the proposed Survival at Sea Training Facility work is provided at Attachment 19.

Project Element 16, 17, 18, 19 and 20 – Below the Line project elements

70. The following scope elements have been approved by Government for delivery but are currently unaffordable within the approved project budget and will only be delivered if savings become available during construction through trade gains and program efficiencies:
- a) **Project Element 16 – Refurbish Retail Areas.** This project element involves the refurbishment and reconfiguration of the existing retail areas, the Watches café and Millies canteen, to fully comply with the relevant standards including the Building Code of Australia, the *Disability Discrimination Act 1992* (DDA) and Defence's Manual of Fire Protection Engineering. The proposed works will provide refurbished cafe spaces, new kitchen and support equipment, storage, food handling and preparation areas, cool rooms, trade waste services including grease arrestors, offices, loading docks, providing DDA compliant access via a new ramp, and upgrading the existing on grade car park to an asphalt car park with lighting. A plan of the proposed works is provided at Attachment 20.
 - b) **Project Element 17 – Upgrade the Fuel System.** This project element involves replacing the existing 40,000 litres above ground diesel fuel storage tank and the existing fuel reticulation pipe work. The proposed works include installation of a new

40,000 litres above ground diesel tank, installation of a structural steel canopy over the new fuel tank filling point and replacement of in ground fuel pipe work from the existing fuel tank and the installation of a purceptor and dedicated fuel tanker filling point. A plan of the proposed works is provided within the *Cerberus Confidential Cost Estimate* as detailed at [Attachment 21](#).

- c) **Project Element 18 – Upgrade Additional Stormwater and Drainage Network.** Five additional bio-retention basins will be constructed on key stormwater mains prior to the outfalls to the adjacent wetlands. One additional stormwater retention separator unit to capture hydrocarbons, where the local topography precludes the construction of bio-retention basins, will be constructed. These are in addition to those proposed under Project Element 4. Approximately 650 lineal metres of stormwater trunk infrastructure will be replaced. Four stormwater pits will be reconstructed and 20 new stormwater pits will be installed. A plan of the proposed works is provided at [Attachment 22](#).
- d) **Project Element 19 – Refurbish of Estate Maintenance Operational Services (EMOS) Contractor Building.** This project element involves the refurbishment of EMOS Contractor building. The proposed works involves a complete refurbishment to fully comply with the relevant standards including the Building Code of Australia, the *Disability Discrimination Act 1992* and Defence’s Manual of Fire Protection Engineering. The proposed refurbishment will be modified to provide offices, meeting rooms, contractor debriefing and breakout spaces, amenities, external lift and stairs. Included in these works will be new furniture, fittings and equipment. An architectural plan of the proposed works is provided at [Attachment 23](#).
- e) **Project Element 20 – Refurbish the Senior Sailor’s LIA.** The proposed works involves partial refurbishment of the existing Senior Sailor’s LIA Block (Buildings 267, 268 and 269) and includes refresh of bathroom and laundry facilities and provision of passive solar protection to windows on the north and west facades. An architectural plan of the proposed work areas is provided at [Attachment 24](#).

Details and Reasons for Site Selection

- 71. For each of the proposed new buildings, site selection boards (SSBs) have been completed in accordance with Defence Estate development guidelines. The SSBs typically consider the suitability of the site for the proposed function, the locations of related functions, access to

services and infrastructure, movement by vehicles and pedestrians to and from the site and heritage and environmental management factors and the approved Zone Plan.

72. The orientation of the proposed new buildings will also be consistent with the design principles first implemented by John Smith Murdoch² and include axial and symmetrical emphases, the orientation of buildings to face the parade ground, as well as sympathetic use of scale and massing.

Zoning and Local Approvals

73. All elements of the proposal are located within the boundaries of Commonwealth-owned and Defence-controlled land. Accordingly, no civilian authority or design approvals are required, although the works will comply with the relevant standards and regulations (where applicable).
74. The proposed redevelopment provides for future developments on *Cerberus* and has been developed in accordance with the approved *Cerberus* Zone Plan, dated 19 June 2014.

Childcare Provisions

75. No additional childcare facilities are being provided under this project.

Impacts on the Local Community

76. The proposal will generate significant short-term employment opportunities predominantly in the building, construction and labour markets in the Mornington Peninsula area and south eastern suburbs of Melbourne. Significant numbers of construction trades personnel will be directly employed for the duration of the construction activities. The redevelopment will also

John Smith Murdoch was a Commonwealth Government architect. He was responsible for the design of the old Parliament House in Canberra. His master plan of *Cerberus* was reminiscent of the military style of architecture developed for training establishments in Great Britain and used building forms and open areas to create a disciplined composition of buildings that instilled hierarchy, routine and unity.

provide opportunities for suppliers involved in the manufacture and distribution of construction materials and equipment.

77. The Managing Contractor will be required to manage all construction activities, in accordance with the Construction Environmental Management Plan, to minimise any disruption to the local community. This plan will include control measures designed to mitigate potential impacts on the Defence and local communities such as increased on-base and local traffic movements including noise, dust and vibration generated during the construction activities. Erosion and sediment control required during the construction phase to protect the environment will also be implemented.
78. **Traffic.** The project will not result in any net increases in permanent military or civilian personnel. There will, however, be an increase in contractor personnel accessing and working at *Cerberus* during the construction phase. During construction there will be an increase in the number of large vehicles delivering materials to site and undertaking construction activities. The development of Traffic Management Plan by the Managing Contractor, together with ongoing and regular coordination of all construction activities with local Defence authorities, will mitigate the effects of this on the internal road network.
79. Contractor access to the construction site within *Cerberus* will be tightly controlled for security reasons and to minimise the impact of construction traffic movements and construction activities on RAN training and the local community.
80. **Business Opportunities.** The construction phase of the project will provide opportunities for local businesses to provide services as sub-contractors to the Managing Contractor.

Planning and Design Concepts

81. The general design philosophy for the proposed facilities incorporates the following considerations:
 - a. provision of cost effective and functional facilities of energy efficient design suitable for the climate of the site and of a style compatible with the existing aesthetics of the establishment;
 - b. adoption, where possible, of conventional construction techniques and materials, in particular those commonly used by the construction industry and consistent with those already utilised on the establishment;

- c. maximum use of existing infrastructure and facilities to minimise capital costs;
- d. use of readily available and durable materials that combine long life while minimising maintenance;
- e. infrastructure services planning and structure design taking into account future flexibility, projected demand and Defence policies for reliability and redundancy;
- f. recognition of site constraints, security requirements, the approved Zone Plan, functional relationships to existing facilities; and
- g. planning services and structural design to accommodate flexibility.

Structural Design

82. The structural design for any new construction, upgrading or refurbishment will be consistent with the Heritage Management Plan where appropriate. Where more appropriate, industrial-type solutions have been developed, including portal frames, precast panels, insulation panelling or lightweight metal cladding.

Materials

83. External walls for new and extended buildings will be a mixture of precast concrete, metal cladding, masonry and glazing, consistent with the Heritage Management Plan where appropriate. Metal deck roofing will be used on all proposed new buildings. The external materials have been selected for their resilience to the harsh coastal environment.

Mechanical Services

84. The mechanical services for each proposed new building 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.
85. For the buildings that are proposed to be refurbished, an assessment has been undertaken to determine the condition and performance of existing heating, ventilation and air-conditioning systems. Where existing air-conditioning systems are deemed to be required, they will be retained if in suitable condition, or if required, upgraded to improve the environmental performance.

Hydraulic Services

86. Where new stormwater systems are required to ensure flood protection for existing and new buildings and roads and car parks, those services will be constructed in reinforced concrete pipes if they may be subjected to significant external loads.
87. All new stormwater pits and modifications to existing pits will be constructed in steel reinforced concrete to the relevant standards to meet a 100 year design life.
88. Where new stormwater quality treatment devices are required to prevent pollution of local water catchments, appropriate devices will be designed or selected from standard units, to meet local site constraints, flow rate requirements, and to manage the potential pollutants.

Electrical Services

89. Lighting, power and lightning protection works will be provided in accordance with the Australian Standards and Defence's engineering policies.
90. Electrical infrastructure and switchboards will have spare capacity to allow for future growth. Sub-metering will be included in new buildings and where deemed appropriate in refurbished buildings. The meters will be monitored through a new Building Management System, which will support an active energy management program on site.

Acoustics

91. The 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 and partitions are being designed to meet the user functional requirements.

Fire Protection

92. All construction and fire protection requirements will, as a minimum, be in accordance with the provisions of the National Construction Code, Defence's Manual of Fire Protection Engineering and all other applicable codes and Australian Standards.
93. Where new connections are to be provided between the proposed new fire-fighting water supply ring main and sprinklers systems in existing buildings, sprinkler system pressure tests will be conducted to determine the ability of the existing systems to accept increased mains pressure.

Security

94. Advice from designated Defence security authorities has been incorporated in the design solutions for the proposed facilities when appropriate. The proposed security features will comply with Defence's Security Manual.

Environmental Sustainability of the Project

95. The Commonwealth is committed to Ecologically Sustainable Development (ESD) and the reduction in greenhouse gas emissions. Defence reports annually to Parliament on the energy efficiency targets, established by government, as part of its commitment to improve ESD. Defence also implements policies and strategies in energy, water and waste to improve natural resource efficiency and to support its commitment to the reduction of energy consumption, potable water consumption and waste diversion to landfill.
96. The project has adopted cost effective ESD measures as a key objective in the design and development of project elements. These measures have been incorporated into the design of most aspects of the proposed works and include:
- a. **Minimising Energy and Greenhouse Gas Emissions:** By adopting passive building design principles for new facilities, using energy efficient HVAC systems, lighting and control systems, maximising natural ventilation, and installing energy management systems.
 - b. **Reducing Water Use:** By specifying water efficient fixtures and fittings will reduce potable water use. Where landscaping works are proposed, the irrigation systems and urban design will be water efficient.
 - c. **Improving Indoor Environment to Maximise Occupant Comfort:** By providing shading for privacy and glare control, optimising building orientation, and using low Volatile Organic Compound (VOC) paints, carpets and adhesives, as well as low emission wood products will improve air quality and occupant comfort levels.
 - d. **Using Renewable Energy:** By incorporating a transpired solar air heater in the design of the proposed Survival at Sea facility to provide a morning warm up preheat capability for the air handling plant.
 - e. **Improving Resource Metering:** By installing energy meters in accordance with the

requirements of the Defence National sub-meter program and will be suitable for connection to Defence National Resource Data Management System;

- f. **Hydraulic Metering:** By installing hydraulic meters that are connected to a Building Management System;
- g. **Using High Efficiency Lighting:** By installing efficient light-emitting diode fittings;
- h. **Spare Capacity:** By incorporating spare capacity within infrastructure service trenches, future expansion has been considered;
- i. **Provision of Interceptors / Separators:** By including interceptors and separators to collect and treat contaminants such as oil, grease, litter and sediment; and
- j. **Spill Containment:** Incorporated for fuel services.

Energy Targets

- 97. The requirements of Defence's SMART Infrastructure Manual and Building Energy Performance Manual have been adopted for the proposed new and substantially refurbished buildings.
- 98. Sub-metering will be installed to buildings and infrastructure in accordance with the requirements of the Building Code of Australia Section J, Defence's SMART Infrastructure Manual and Building Energy Performance Manual.

Compliance with Local, State/Territory and Commonwealth Water and Energy Policies

- 99. All buildings will be designed, constructed, operated and maintained in order to use energy and water as efficiently as possible and to comply with the following statutory and Defence requirements:
 - a. Section J of the Building Code of Australia;
 - b. Commonwealth Energy Efficiency in Government Operations Policy 2007;
 - c. Department of Defence Building Energy and Performance Manual, Version 4 – December 2012;

- d. Department of Defence SMART Infrastructure Manual, Version 1 – May 2015;
- e. Department of Defence Water Management Strategy 2006-2009; and
- f. Department of Defence Waste Minimisation Policy 2007.

Landscaping

100. The landscape design includes indigenous, regionally appropriate, drought tolerant plants and naturally occurring native grasses with low ongoing watering requirements. The reuse of materials from the building demolition works where possible will also be undertaken as part of this project. Materials such as solid stone, bricks or structural timber will be used where suitable for elements such as paving, seating and lawn edging.

Workplace Health and Safety Measures

101. The Australian Government is committed to improving work health and safety outcomes in the building and construction industry. This proposed redevelopment will comply with the requirements of the *Work Health and Safety Act 2011(Cth)*, Work Health and Safety (Commonwealth Employment – National Standards) Regulations and relevant Defence policies.
102. In accordance with Section 35 (4) of the *Building and Construction Industry Improvement Act 2005 (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.
103. Safety aspects of the proposed redevelopment have been addressed during the design development process and have been documented in a Safety in Design Report. A Work Health Safety Plan will be required to be developed for the construction phase prior to the commencement of any construction activities.
104. All construction sites will be secured appropriately to prevent public access, or access by unauthorised Defence personnel during the construction period. No public safety risks have been identified.

Provisions for People with Disabilities

105. Access for people with disabilities will be provided in accordance with the Building Code of Australia (BCA), Australian Standard AS1428³, the *Disability Discrimination Act 1992*, and the Defence Policy 'Disabled Access and other Facilities for Disabled Persons'.
106. Where the requirements of the BCA have not been met, an alternative design or management strategy has been proposed and documented in an Alternative Solution Report which has been developed in consultation with Defence subject matter experts.
107. Access for people with disabilities is not required to some areas in the proposed new facilities, which are exempt under section D3.4 of the BCA, as access for people with disabilities would be inappropriate, because of the particular purpose of the area.
108. Access to, and connections between building and facilities on site, including car parking, will also be designed in accordance with the relevant access Australian standards.

Cost Effectiveness and Public Value

Outline of Project Costs

109. The estimated out-turned cost of this project is \$463.1 million, excluding Goods and Service Tax. The cost estimate includes the construction costs, management and design fees, furniture, information communications technology, fitting and equipment, contingencies and escalation allowance.
110. An increase in the total cost of ownership is anticipated due to the addition of new facilities and infrastructure which will require additional maintenance, cleaning and utilities expenses.

Details of the Project Delivery System

111. Subject to Parliamentary approval, a Project Manager Contract Administrator will be appointed to manage the delivery phase of the works and a Managing Contractor will be

³ AS 1428 – 2010: Design for access and mobility

appointed to complete design development, procure trade sub-contractors and manage the construction of the works.

112. 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.

Construction Schedule

113. Subject to Parliamentary approval of the project, construction is expected to commence in late 2017 and be completed in mid 2025. Due to the current Project budget funding provision, there is a two year gap in construction from 2020-22.

Public Value

114. The proposed redevelopment will contribute significantly to Defence's capability by improving ADF's training outcomes through fit-for-purpose and operationally effective facilities.
115. The proposed redevelopment of facilities includes the renewal of engineering services infrastructure to ensure these services will be adequate for the next two decades. Existing training and support facilities have been re-used where it has been possible to meet the users' requirements and to minimise operating costs and environmental impacts.
116. The Project will also employ a diverse range of skilled consultants, contractors and construction workers that could also include opportunities for up-skilling and job training to improve individual skills and employability on future projects.

Revenue

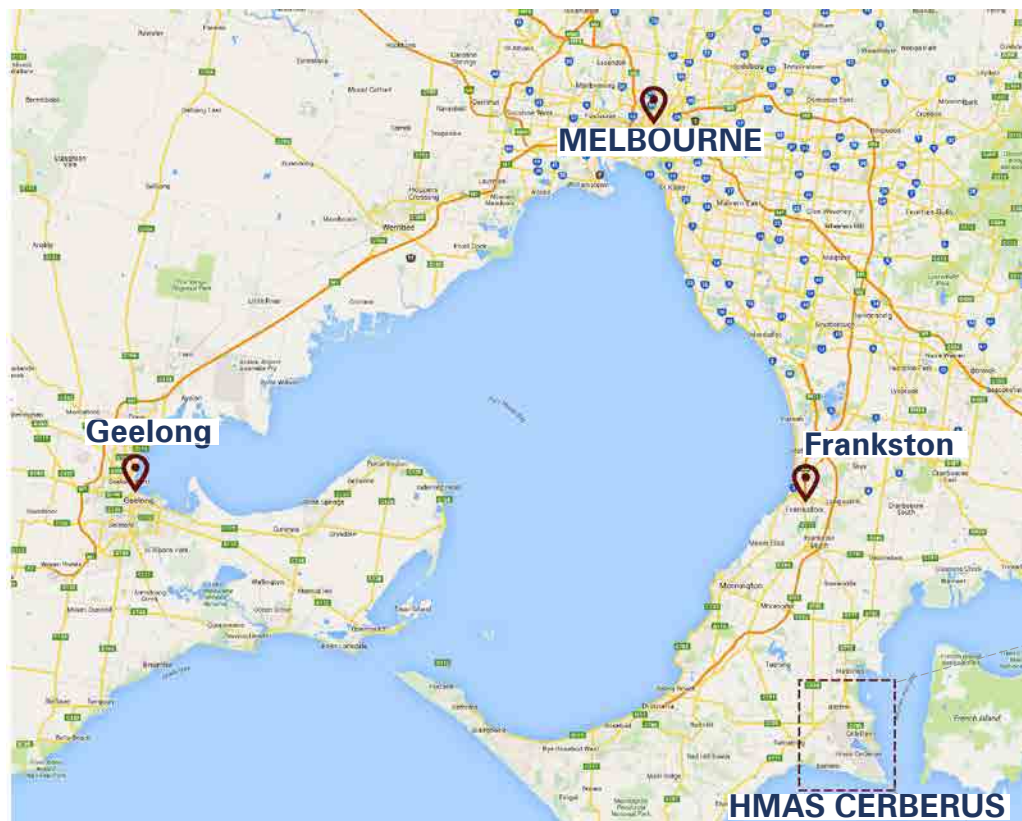
117. No revenue is expected to be derived from this project.

Attachment 1 to
HMAS *Cerberus* SOE
Dated June 2017

HMAS *Cerberus*

Locality Plan

LOCALITY PLAN



Proximity to Melbourne CBD



Locality within Western Port Bay

Attachment 2 to
HMAS *Cerberus* SOE
Dated June 2017

HMAS *Cerberus*

Site Location

HMAS CERBERUS SITE LOCATION



HMAS *Cerberus* Establishment

SCALE : NTS

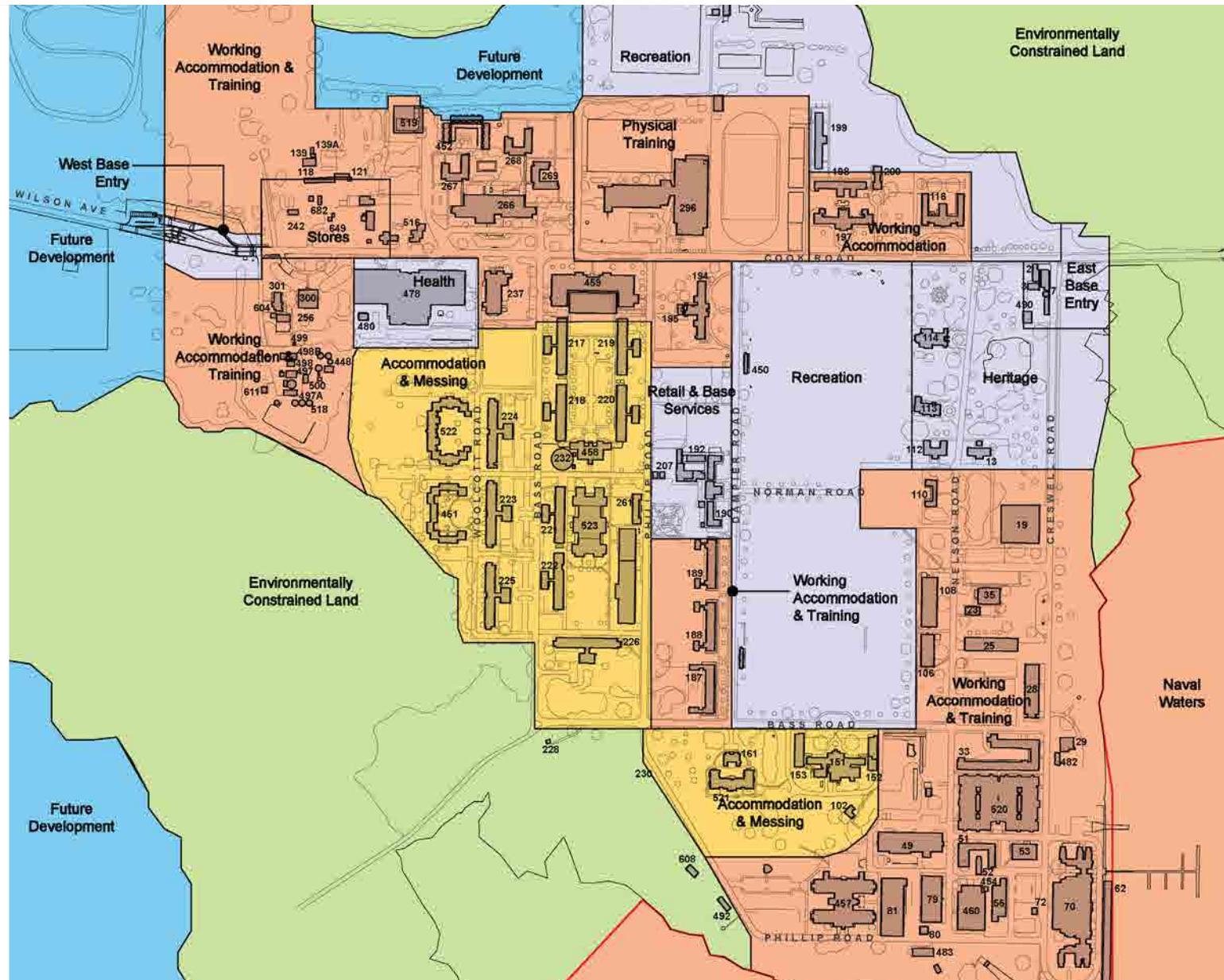


Attachment 3 to
HMAS *Cerberus* SOE
Dated June 2017

HMAS *Cerberus*

Zone Plan

HMAS CERBERUS ZONE PLAN



LEGEND

- FUTURE DEVELOPMENT
- ENVIRONMENTALLY CONSTRAINED LAND
- ACCOMMODATION & MESSING
- WORKING ACCOMMODATION & TRAINING
- RECREATION

HMAS *Cerberus* Zone Plan

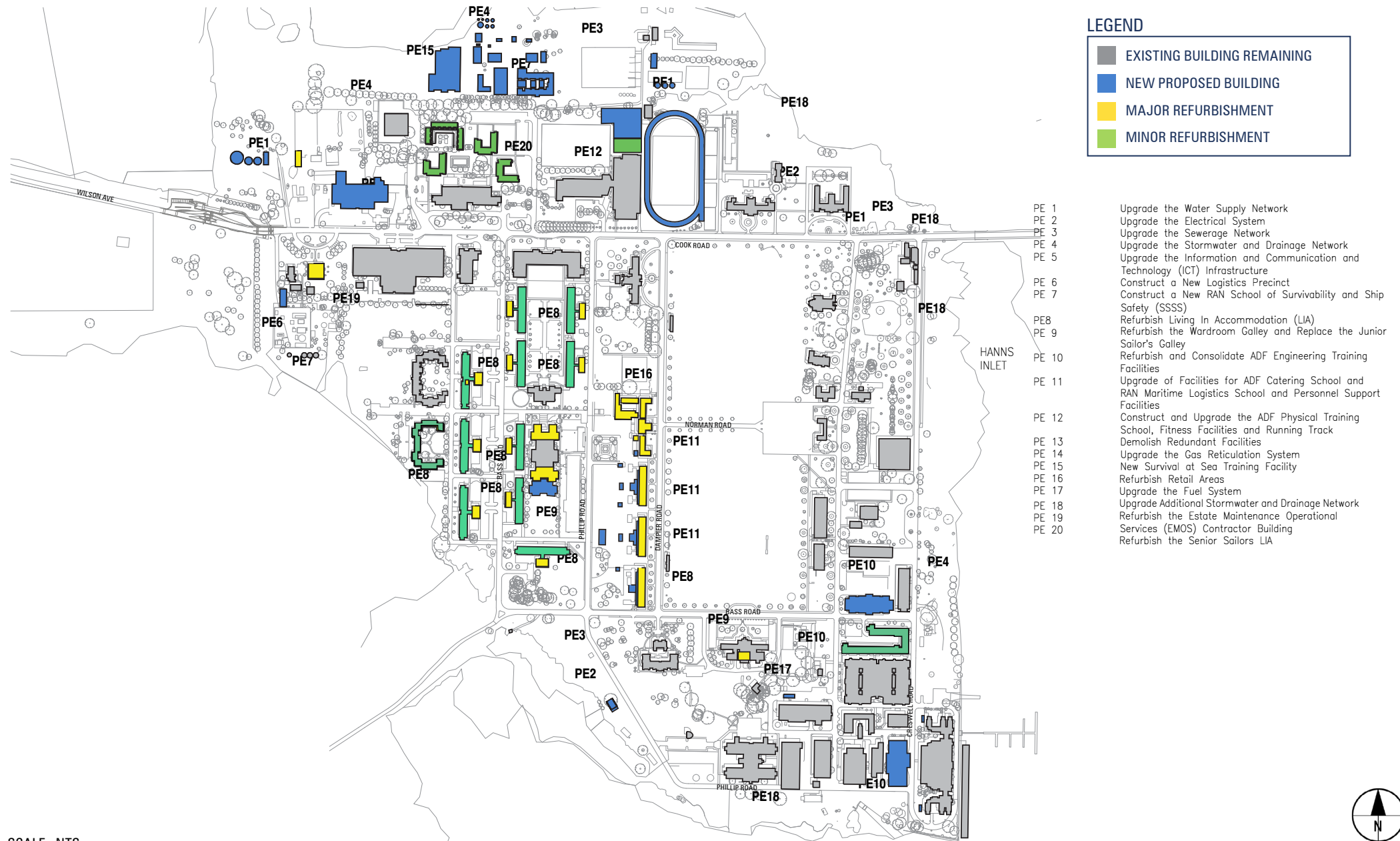
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Attachment 4 to
HMAS *Cerberus* SOE
Dated June 2017

HMAS *Cerberus*
Proposed Building Works

HMAS Cerberus - Proposed Building Works



SCALE : NTS

Attachment 5 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 1

Upgrade the Water Supply Network

Project Element 1: Upgrade the Water Supply Network

DETAILS OF THIS PROJECT ELEMENT HAVE BEEN PROVIDED IN THE
CONFIDENTIAL COST ESTIMATE

Attachment 6 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 2

Upgrade the Electrical System

Project Element 2: Upgrade the Electrical System

DETAILS OF THIS PROJECT ELEMENT HAVE BEEN PROVIDED IN THE
CONFIDENTIAL COST ESTIMATE

Attachment 7 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 3
Upgrade the Sewerage Network

Project Element 3: Upgrade the Sewerage Network

DETAILS OF THIS PROJECT ELEMENT HAVE BEEN PROVIDED IN THE
CONFIDENTIAL COST ESTIMATE

Attachment 8 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 4

Upgrade the Stormwater and Drainage Network

Project Element 4: Upgrade the Stormwater and Drainage Network

DETAILS OF THIS PROJECT ELEMENT HAVE BEEN PROVIDED IN THE
CONFIDENTIAL COST ESTIMATE

Attachment 9 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 5

Upgrade the Information Communication and Technology Infrastructure

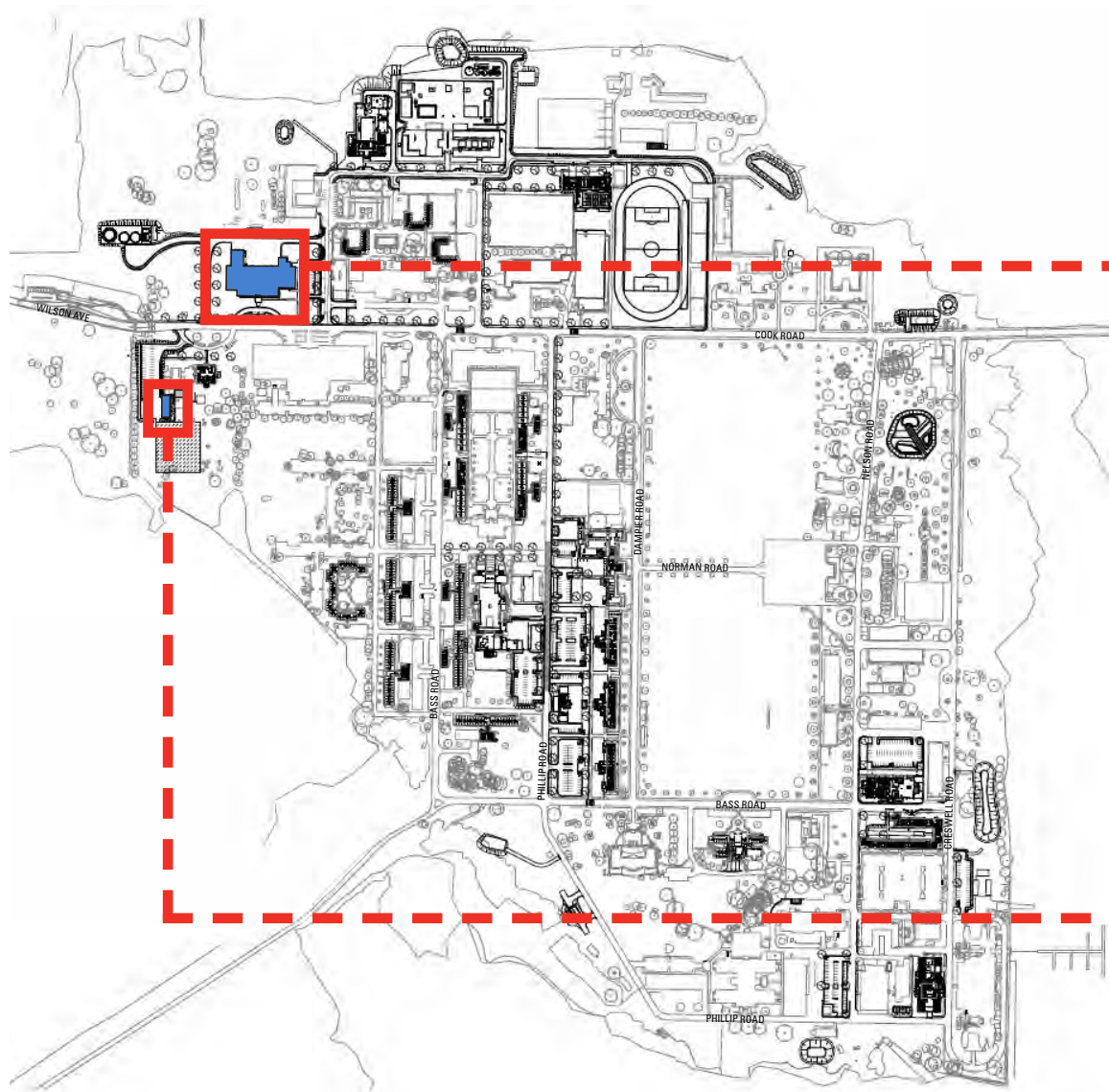
Project Element 5: Upgrade the Information and Communications Technology (ICT) Infrastructure

DETAILS OF THIS PROJECT ELEMENT HAVE BEEN PROVIDED IN THE
CONFIDENTIAL COST ESTIMATE

Attachment 10 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 6
New Logistics Precinct

Project Element 6: Construct a New Logistics Precinct



SCALE : NTS



PERSPECTIVE FROM COOK ROAD - LOOKING NORTH EAST (NTS)



PERSPECTIVE FROM CARPARK - LOOKING SOUTH EAST (NTS)

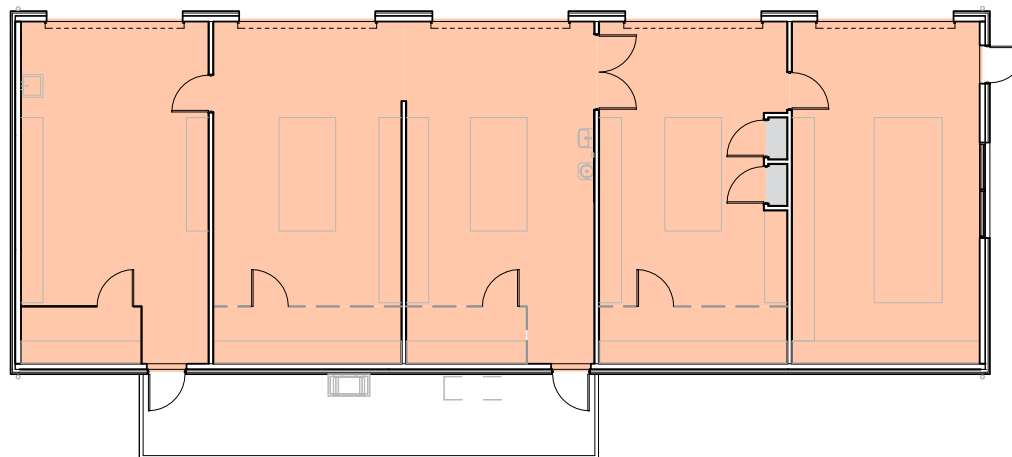


Project Element 6: Construct a New Logistics Precinct

Estate Maintenance Operational Services (EMOS) Contractor Workshop

LEGEND

- BUILDING SERVICES
- EMOS
- EXTERNAL



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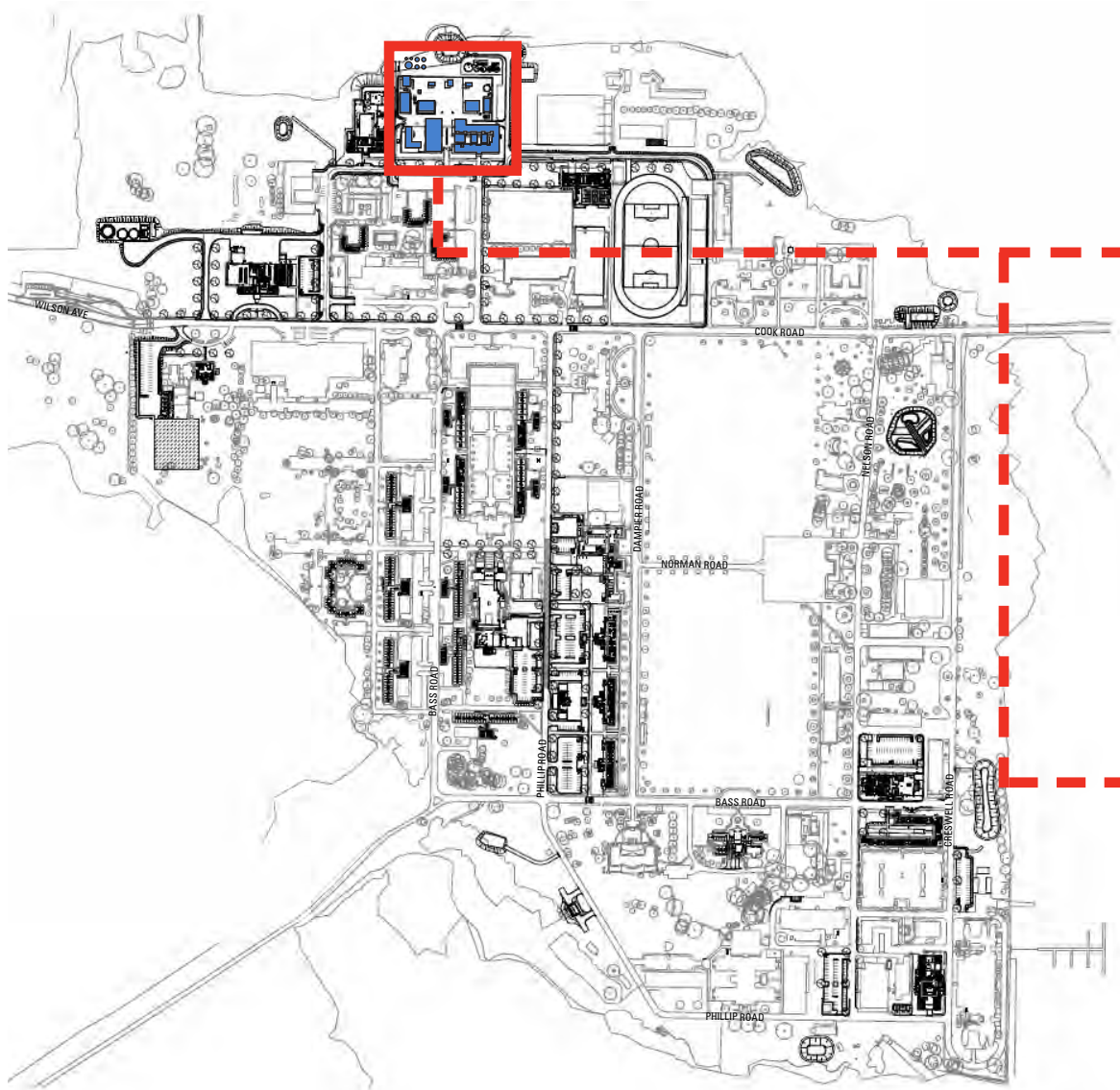


Attachment 11 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 7

New RAN School of Survivability and Ship Safety

Project Element 7: Construct a New RAN School of Survivability and Ship Safety (SSSS)



Project Element 7: Construct a New RAN School of Survivability and Ship Safety (SSSS)

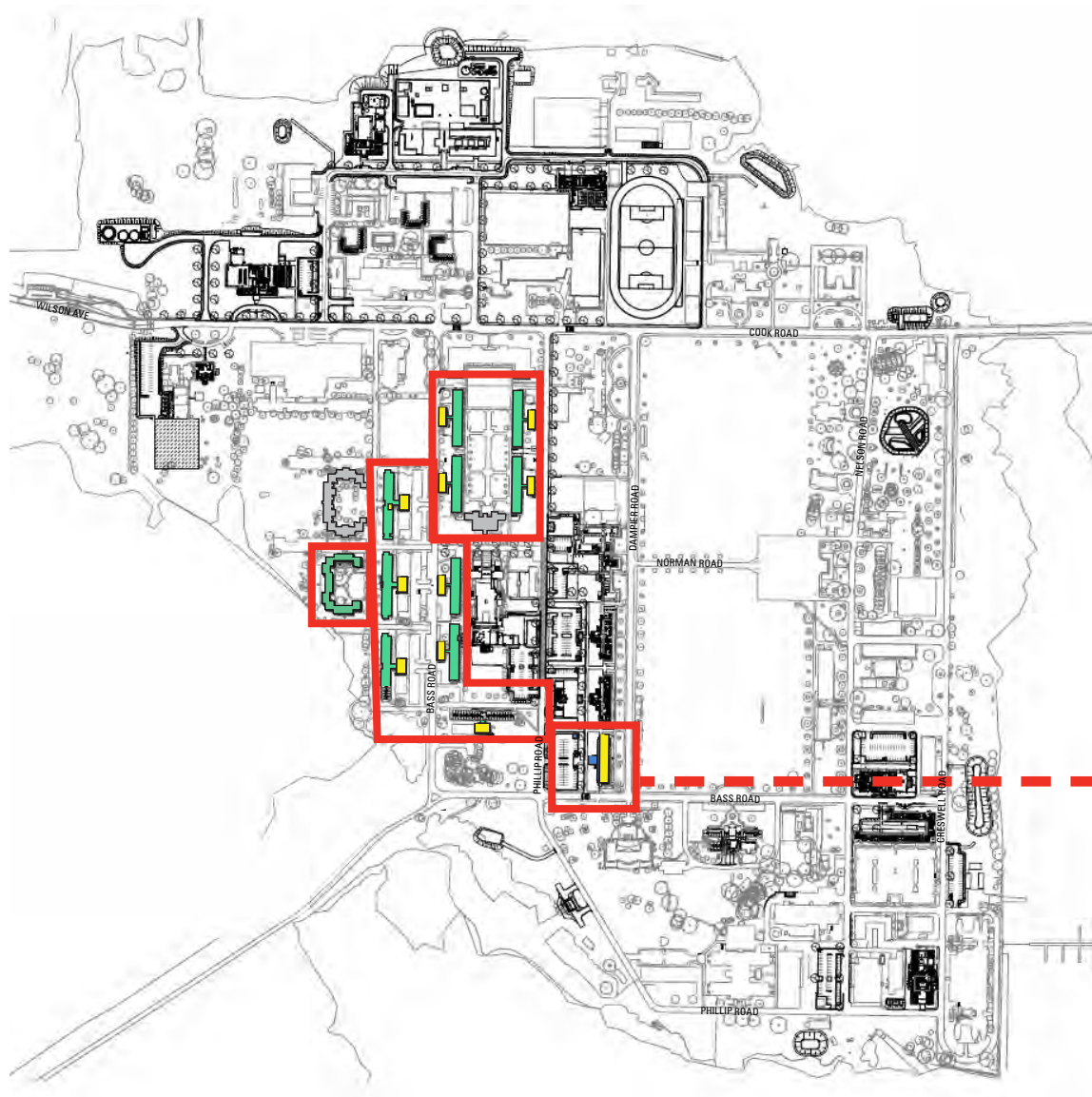


Attachment 12 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 8

**Refurbish Living In Accommodation (Recruit School, Category School, Officers and
Junior Sailors)**

Project Element 8: Refurbish Living In Accommodation (LIA)



LEGEND

- EXISTING BUILDING REMAINING
- NEW PROPOSED BUILDING
- MAJOR REFURBISHMENT
- MINOR REFURBISHMENT



PERSPECTIVE OF NEW ENTRANCE TO OFFICERS' LIA LOOKING EAST (NTS)

SCALE : NTS



Project Element 8: Refurbish Living In Accommodation (LIA)

Recruit School LIA



LEGEND

	AMENITIES / CIRCULATION
	OFFICE ACCOMMODATION
	EXTERNAL
	SHARED AREAS / THEORY TRAINING
	BUILDING SERVICES
	SUPPORT SPACES
	NO WORKS EXCEPT FOR ADDITION OF FANS TO CABINS

Recruit School Building 218, ground floor shown as indicative example.
Building 217 has an identical floor plan and orientation to 218.
Buildings 219 and 220 are mirror images of 217 and 218 on the long axis.
All buildings are two storeys. Ablutions and fans to cabins only affected on upper level.

SCALE : 1:400@A4

REFURBISHED BUILDING



Project Element 8: Refurbish Living In Accommodation (LIA)

Category School LIA



LEGEND

- AMENITIES / CIRCULATION
- EXTERNAL
- SHARED AREAS / THEORY TRAINING
- BUILDING SERVICES
- NO WORKS EXCEPT FOR ADDITION OF FANS TO CABINS

Category School Building 222 shown as indicative example.

Buildings 221 and 222 are two storey Buildings. Buildings 223, 224, 225 and 226 are three storey.

Buildings 221, 223, 224, 225 and 226 are similar to 222 with differing cardinal orientations.



SCALE : 1:400@A4

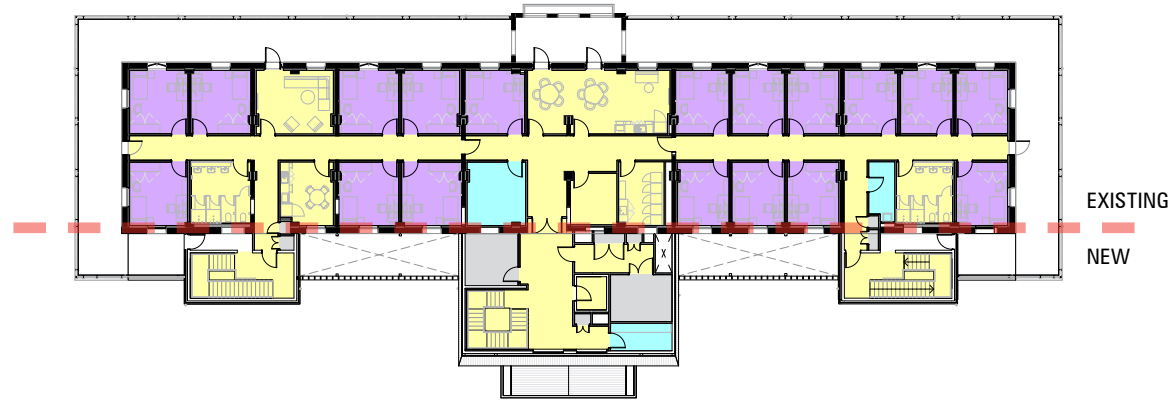
REFURBISHED BUILDING



Project Element 8: Refurbish Living In Accommodation (LIA)

Officer LIA in Refurbished Building 187

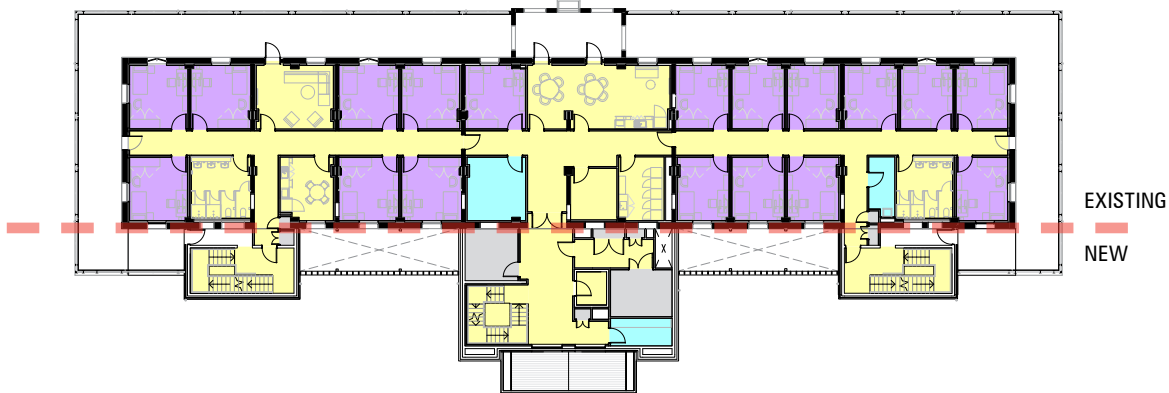
Level 02



LEGEND

- SINGLE OCCUPANT CABINS
- EXTERNAL
- SHARED AREAS / THEORY TRAINING
- BUILDING SERVICES
- CIRCULATION & AMENITIES
- STORES
- LINE OF NEW BUILDING

Level 01



Ground



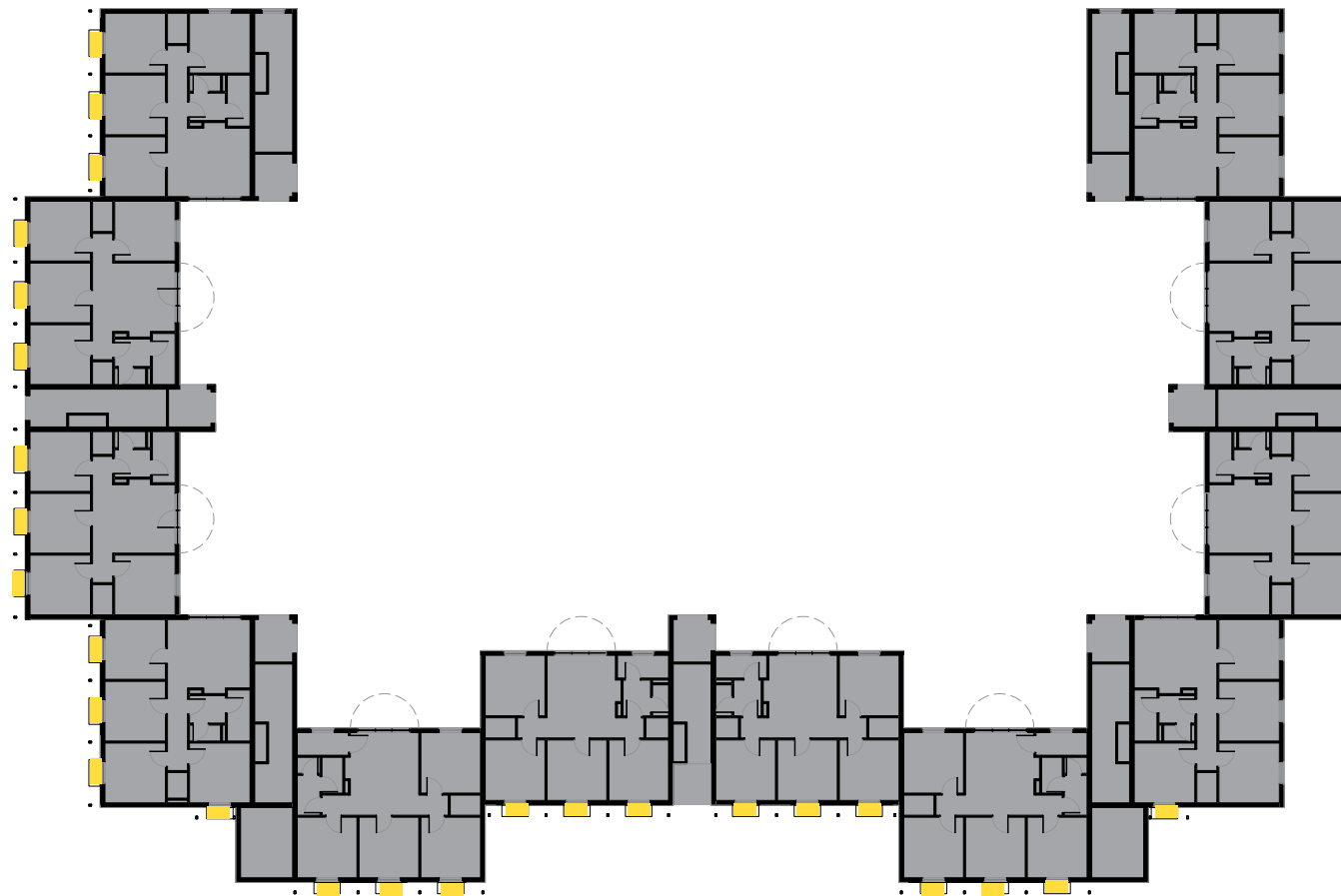
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REFURBISHED AND
EXTENDED BUILDING



Project Element 8: Refurbish Living In Accommodation (LIA)

Junior Sailor LIA



LEGEND

-  NEW SUNSHADES TO NORTH / WEST FACADE
-  NOT IN PROJECT SCOPE

Junior Sailor LIA Building 451.

Note Sun Shades only added to this Building on Ground, Level 1 and 2.


SCALE : 1:400@A4

REFURBISHED BUILDING

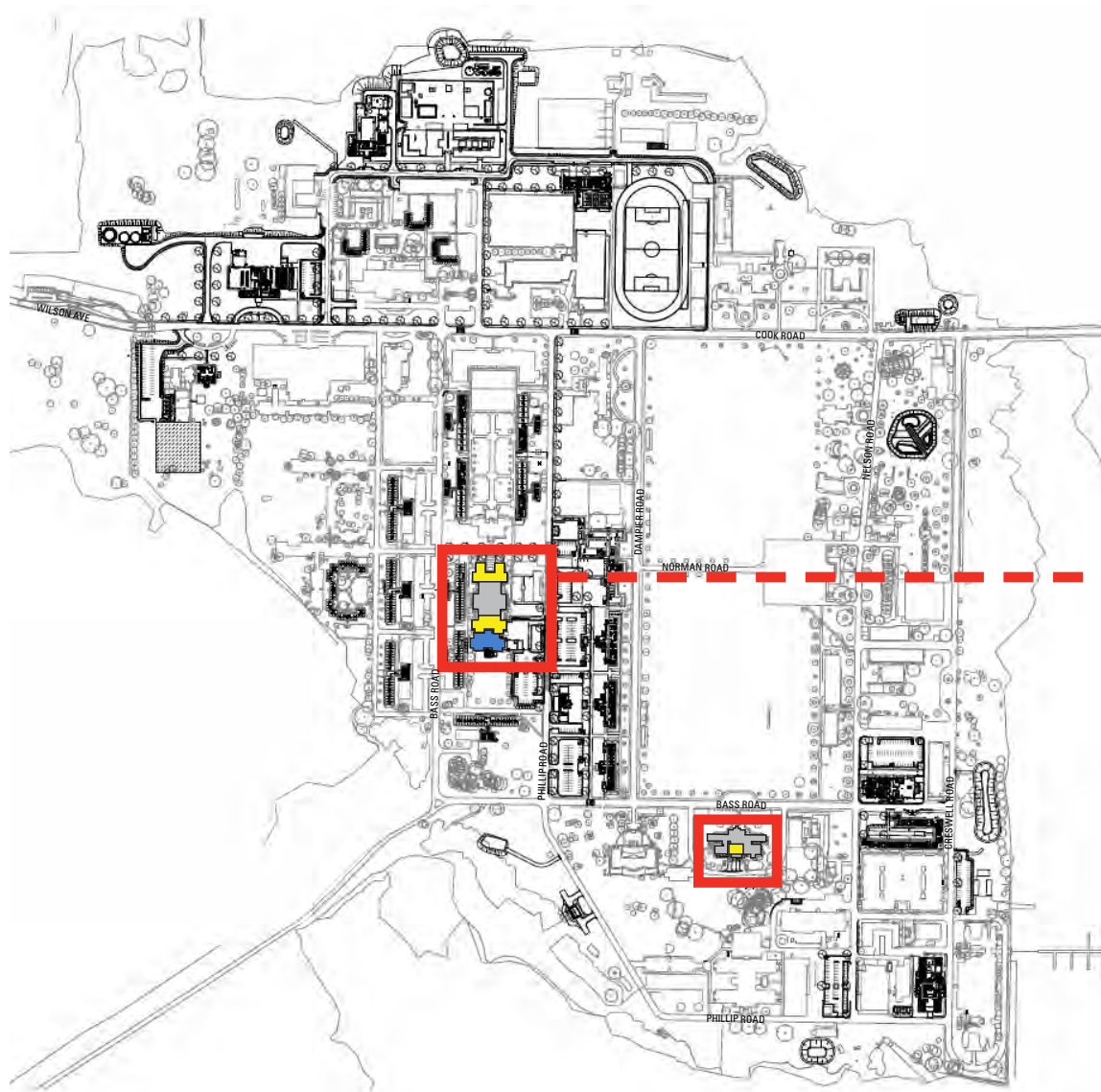


Attachment 13 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 9

Refurbish the Wardroom and Junior Sailor's Galley

Project Element 9: Refurbish the Wardroom Galley and Junior Sailor's Galley



LEGEND

- EXISTING BUILDING REMAINING
- NEW PROPOSED BUILDING
- MAJOR REFURBISHMENT
- MINOR REFURBISHMENT



PERSPECTIVE OF NORTH ENTRANCE TO THE JUNIOR SAILORS GALLEY
LOOKING SOUTH (NTS)

SCALE : NTS

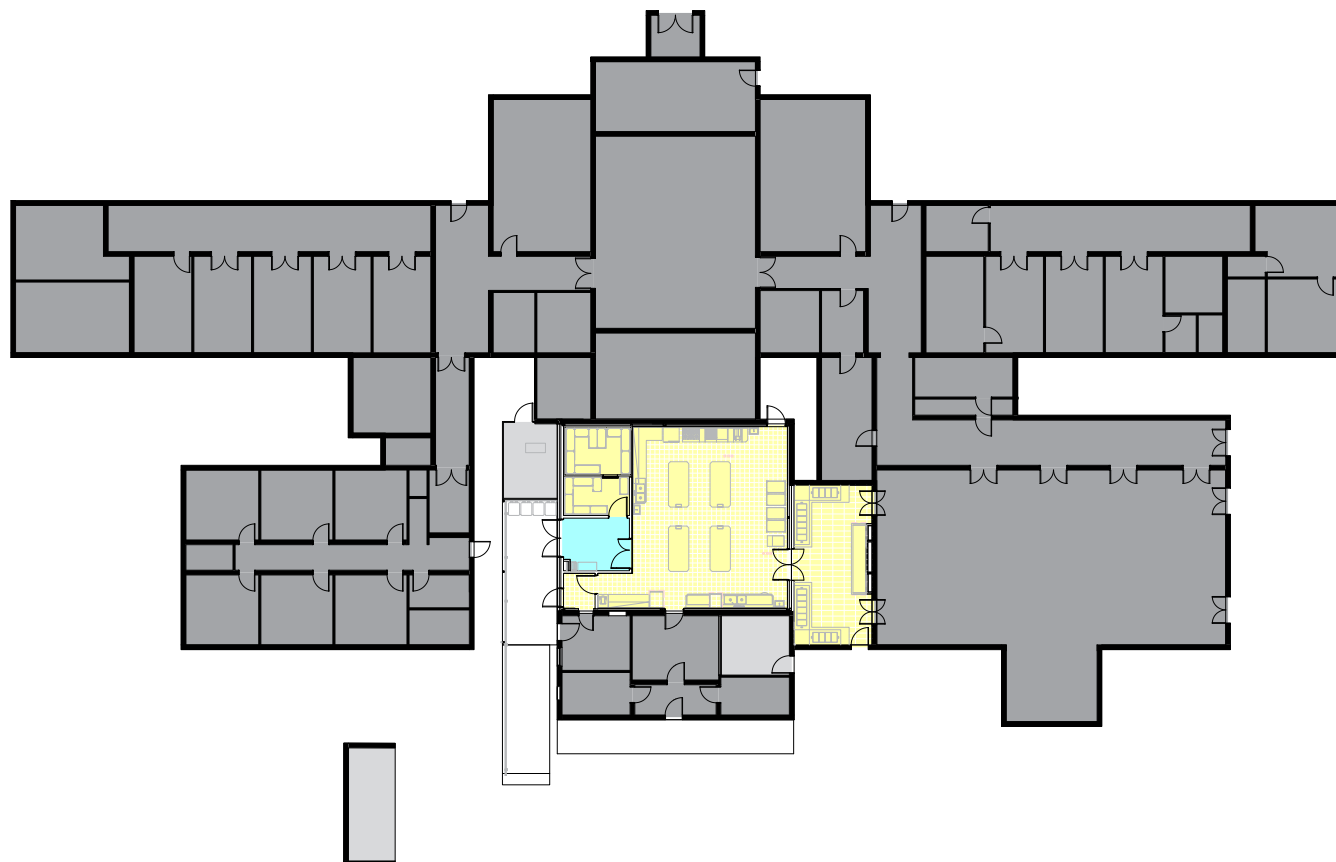


Project Element 9: Refurbish the Wardroom Galley and Junior Sailor's Galley

Wardroom Galley

LEGEND

- KITCHEN / GALLEY
- NOT IN PROJECT SCOPE
- GOODS ENTRANCE



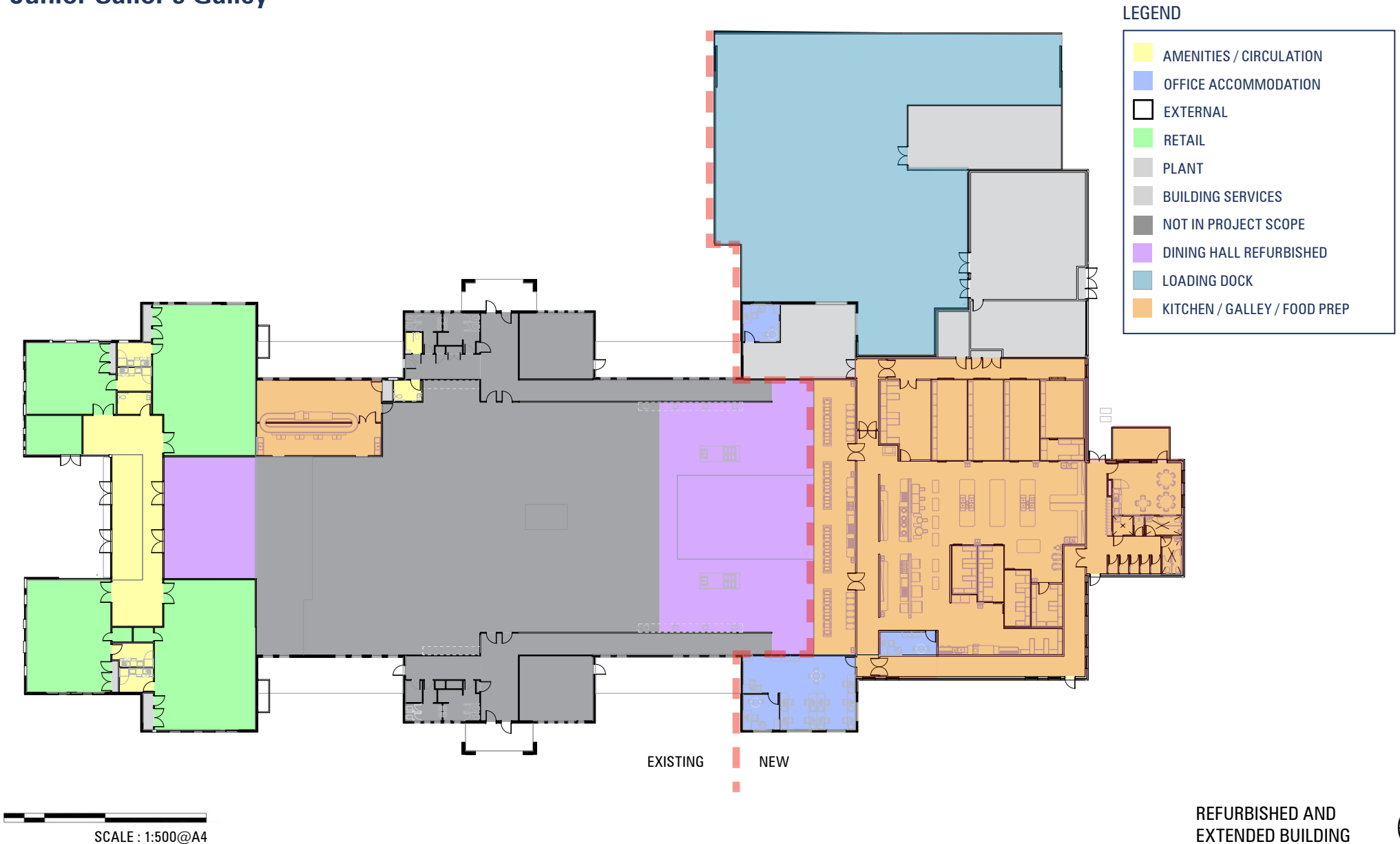
SCALE : 1:800@A4

REFURBISHED BUILDING



Project Element 9: Refurbish the Wardroom Galley and Junior Sailor's Galley

Junior Sailor's Galley

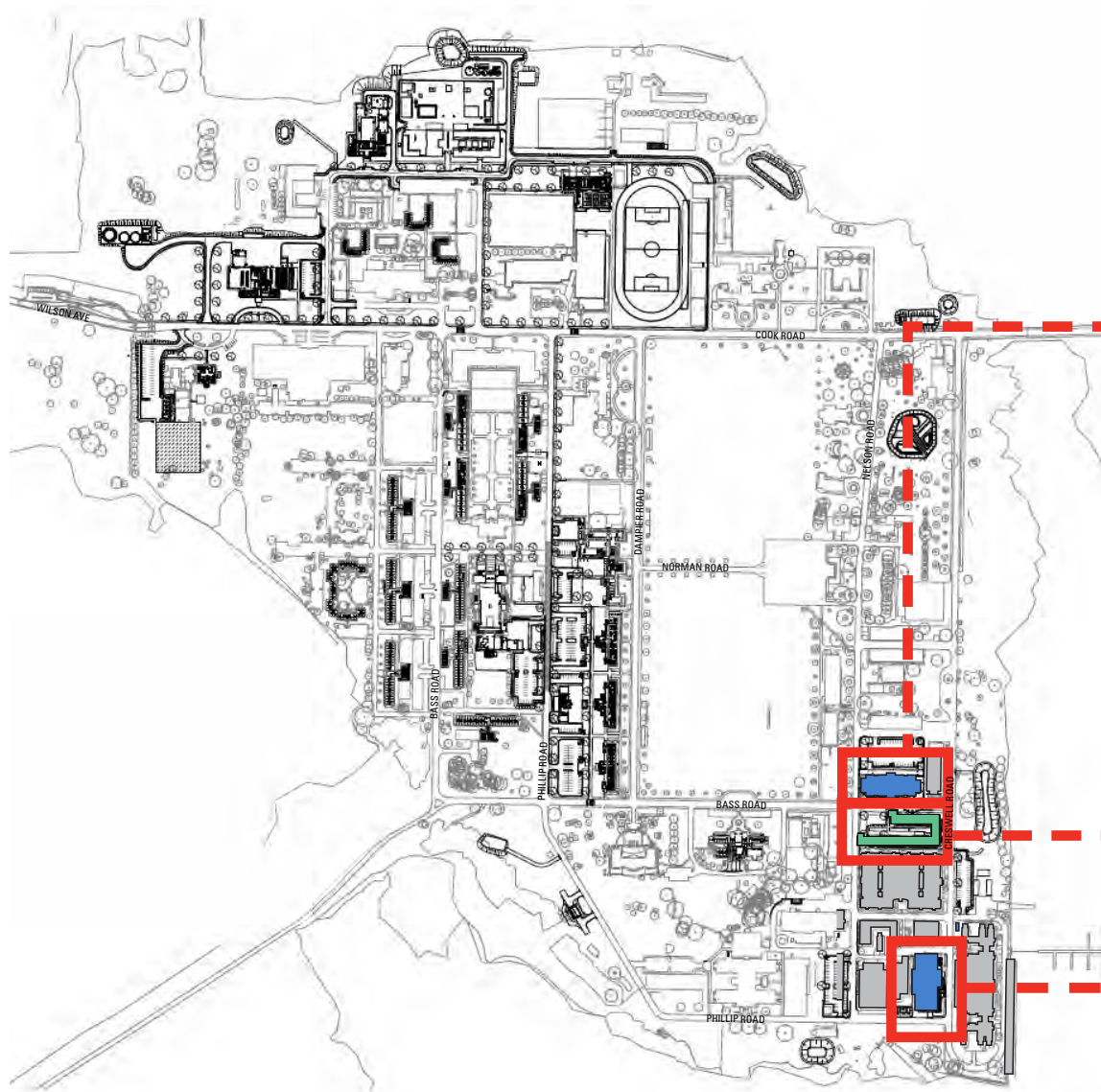


Attachment 14 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 10

**Refurbish Engineer Officer and Senior Sailor Training, new Electronic Technician &
Torpedo Training Building and new Marine Technician Training Building**

Project Element 10: Refurbish and Consolidate ADF Engineering Training Facilities



LEGEND

- EXISTING BUILDING REMAINING
- NEW PROPOSED BUILDING
- MAJOR REFURBISHMENT
- MINOR REFURBISHMENT



PERSPECTIVE OF SOUTH ENTRANCE NEW ET BUILDING LOOKING NORTH (NTS)



PERSPECTIVE OF BUILDING 33 COURTYARD LOOKING SOUTH EAST (NTS)



PERSPECTIVE OF MT BUILDING, EAST ENTRANCE LOOKING WEST (NTS)

SCALE : NTS

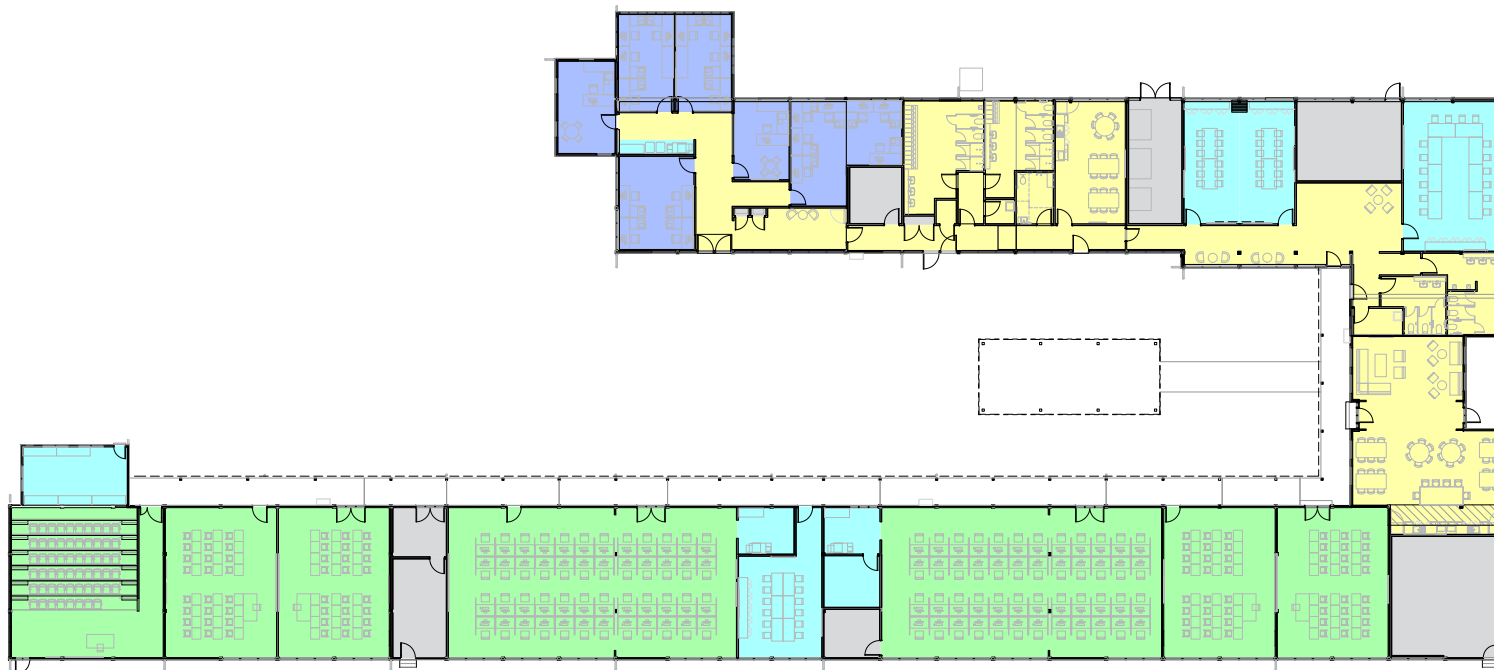


Project Element 10: Refurbish and Consolidate ADF Engineering Training Facilities

Refurbish Building 33

LEGEND

- AMENITIES / CIRCULATION
- OFFICE ACCOMMODATION
- EXTERNAL
- SUPPORT SPACES
- BUILDING SERVICES
- SHARED AREAS / THEORY TRAINING / CLASSROOMS



SCALE : 1:500@A4

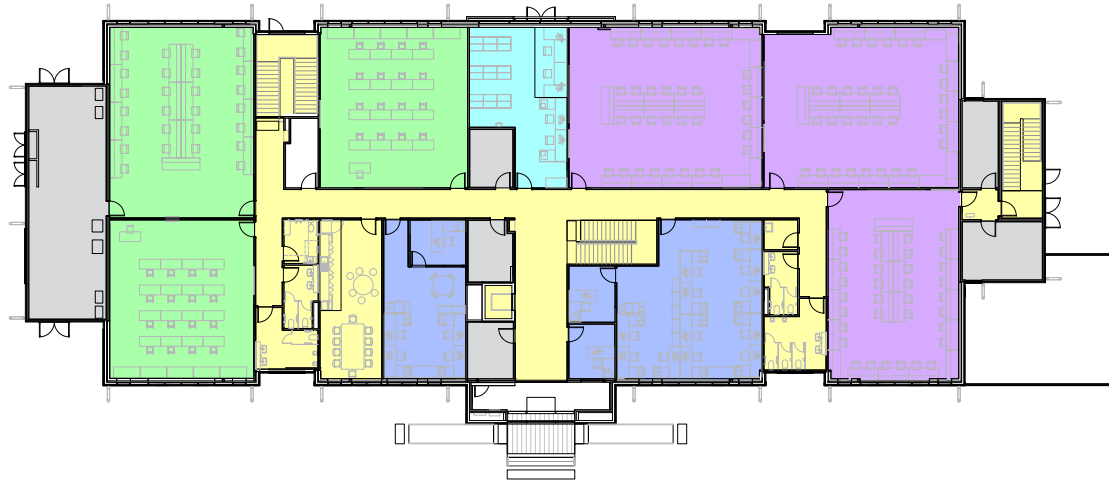
REFURBISHED BUILDING



Project Element 10: Refurbish and Consolidate ADF Engineering Training Facilities

New ET Building

Level 01



LEGEND

- AMENITIES / CIRCULATION
- PRACTICAL TRAINING
- EXTERNAL
- SUPPORT SPACES
- BUILDING SERVICES
- SHARED AREAS / THEORY TRAINING / CLASSROOMS

Ground



SCALE : 1:500@A4

NEW BUILDING



Project Element 10: Refurbish and Consolidate ADF Engineering Training Facilities

New MT Building

Level 02



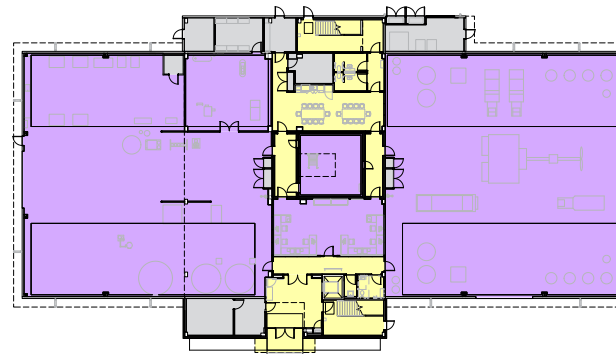
LEGEND

- AMENITIES / CIRCULATION
- PRACTICAL TRAINING
- EXTERNAL
- SUPPORT SPACES
- BUILDING SERVICES
- SHARED AREAS / THEORY TRAINING / CLASSROOMS

Level 01



Ground



SCALE : 1:800@A4

NEW BUILDING

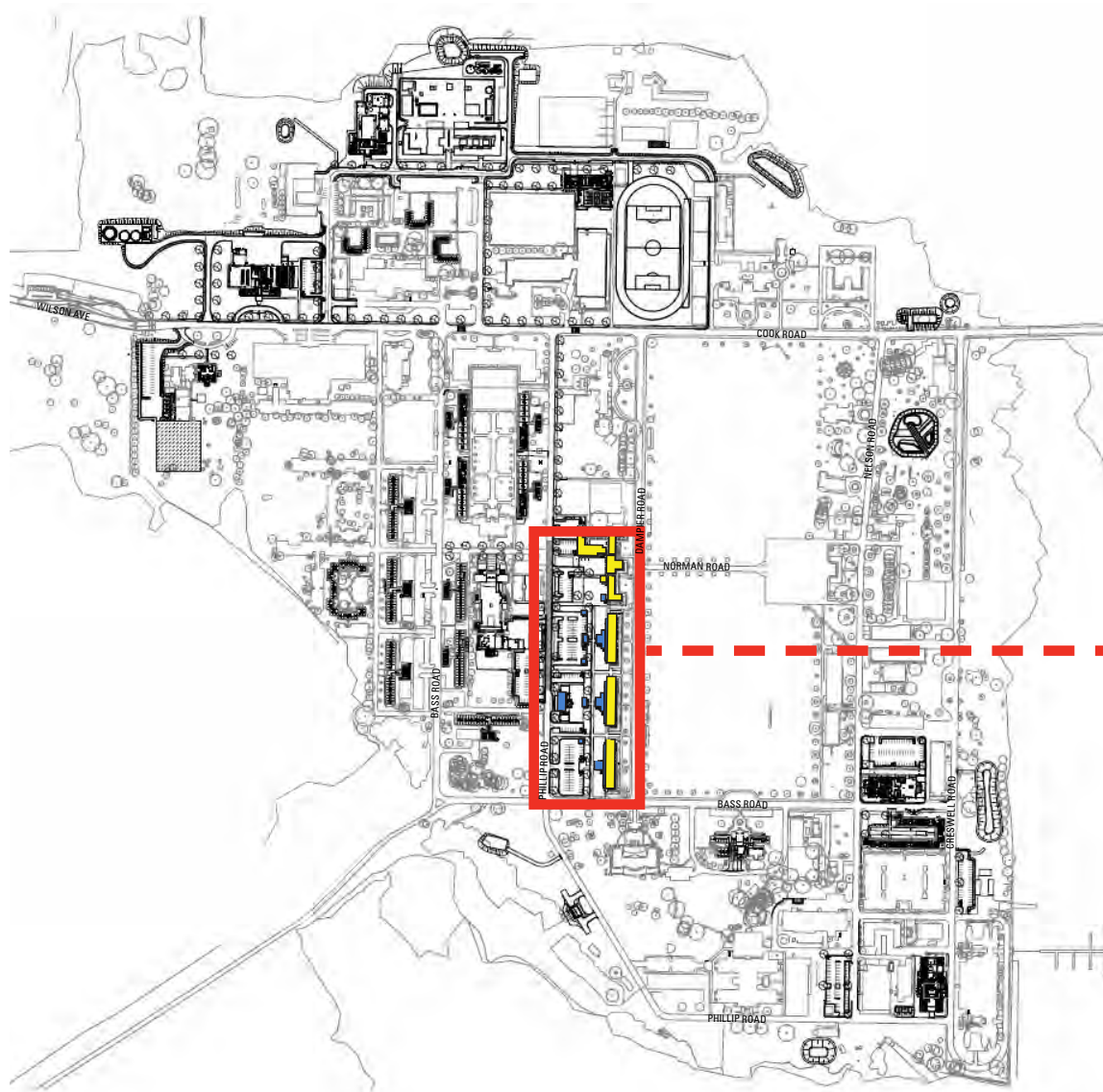


Attachment 15 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 11

**Upgrade the ADF Catering and RAN Maritime Logistics Schools and Personnel
Support Facilities**

Project Element 11: Upgrade of Facilities for ADF Catering School and RAN Maritime Logistics School and Personnel Support Facilities



SCALE : NTS

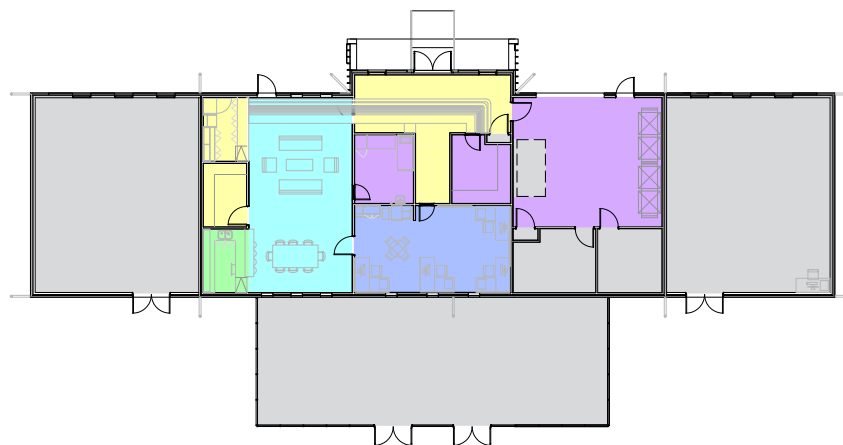


Project Element 11: Upgrade of Facilities for ADF Catering School and RAN Maritime Logistics School and Personnel Support Facilities

ADFT Simulator Building

LEGEND

- AMENITIES / CIRCULATION
- CLOTHING STORE
- WHARF SIMULATION AREA
- WET BAR
- PLANT
- OFFICE ACCOMMODATION
- WARDROOM



SCALE : 1:400@A4

NEW BUILDING



Project Element 11: Upgrade of Facilities for ADF Catering School and RAN Maritime Logistics School and Personnel Support Facilities

ADFT Building 188

Level 02



LEGEND

- AMENITIES / CIRCULATION
- EXTERNAL
- SHARED AREAS / THEORY TRAINING
- BUILDING SERVICES
- TRAINING SUPPORT
- SUPPORT SPACES
- OFFICE ACCOMMODATION
- LINE OF NEW BUILDING

Level 01



Ground



SCALE : 1:800@A4

REFURBISHED AND
EXTENDED BUILDING



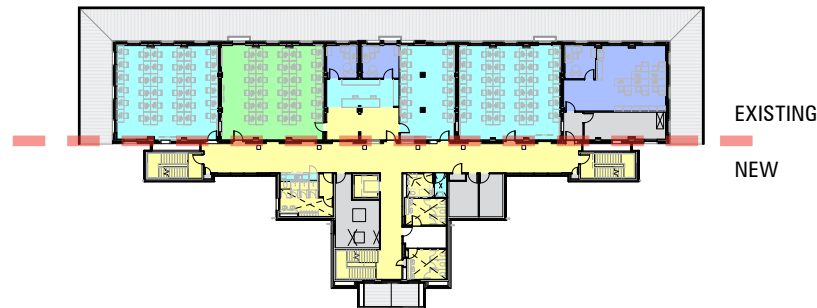
Project Element 11: Upgrade of Facilities for ADF Catering School and RAN Maritime Logistics School and Personnel Support Facilities

Personnel Support Unit Building 189

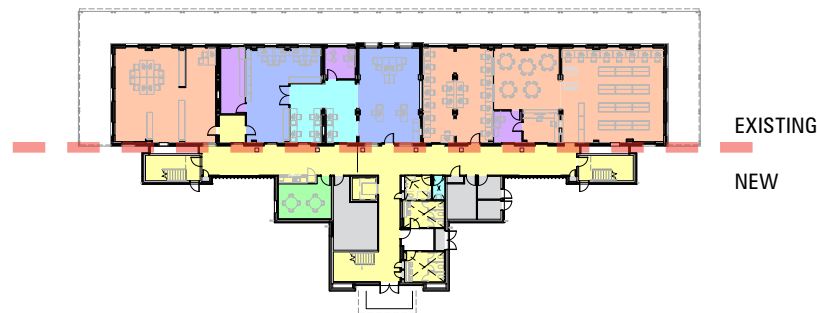
Level 02



Level 01



Ground



LEGEND

- AMENITIES / CIRCULATION
- EXTERNAL
- SHARED AREAS / THEORY TRAINING
- BUILDING SERVICES
- TRAINING SUPPORT
- TRAINING ACCOMMODATION
- OFFICE ACCOMMODATION
- WORKING ACCOMMODATION
- LINE OF NEW BUILDING

SCALE : 1:800@A4

REFURBISHED AND
EXTENDED BUILDING

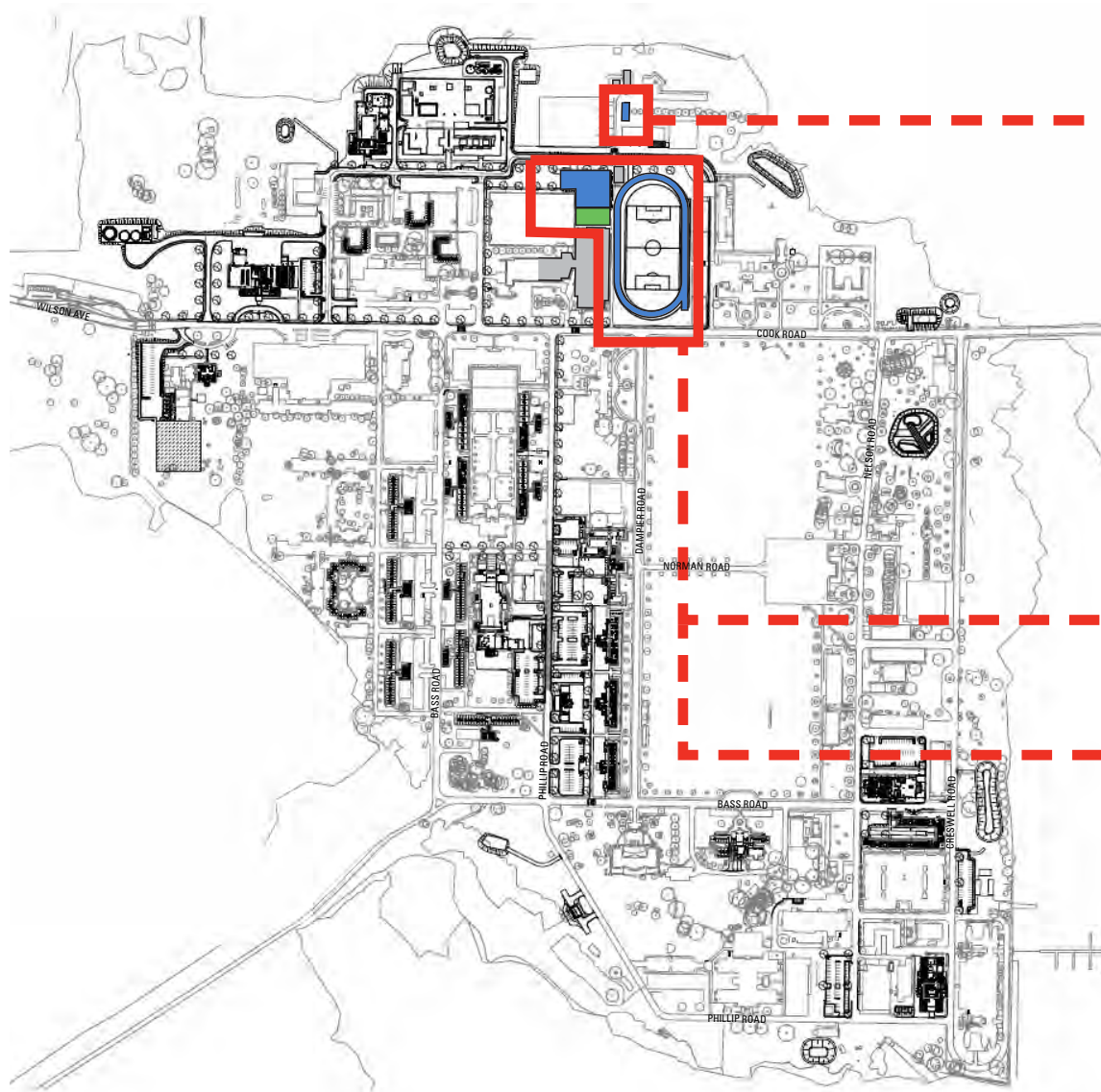


Attachment 16 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 12

Upgrade the ADF Physical Training School, Fitness Facilities and Running Track

Project Element 12: Construct and Upgrade the ADF Physical Training School, Fitness Facilities and Running Track



SCALE : NTS



PERSPECTIVE OF RUNNING TRACK (NTS)

LEGEND

- EXISTING BUILDING REMAINING
- NEW PROPOSED BUILDING
- MAJOR REFURBISHMENT
- MINOR REFURBISHMENT



PERSPECTIVE OF NORTH ENTRANCE LOOKING SOUTH (NTS)

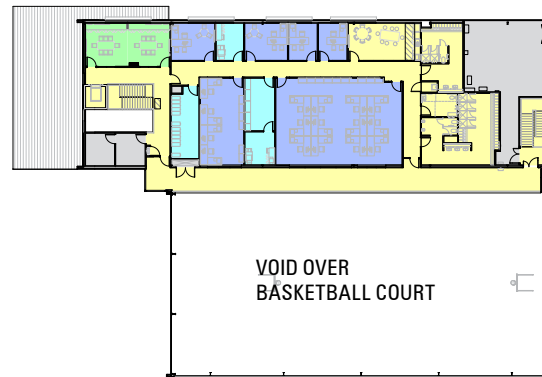


PERSPECTIVE OF WEST ELEVATION LOOKING EAST (NTS)



Project Element 12: Construct and Upgrade the ADF Physical Training School, Fitness Facilities and Running Track

Level 01



LEGEND

- AMENITIES / CIRCULATION
- PRACTICAL TRAINING / MULTI-USE COURT
- EXTERNAL
- SUPPORT SPACES
- BUILDING SERVICES
- SHARED AREAS / THEORY TRAINING / CLASSROOMS

Ground



SCALE : 1:800@A4

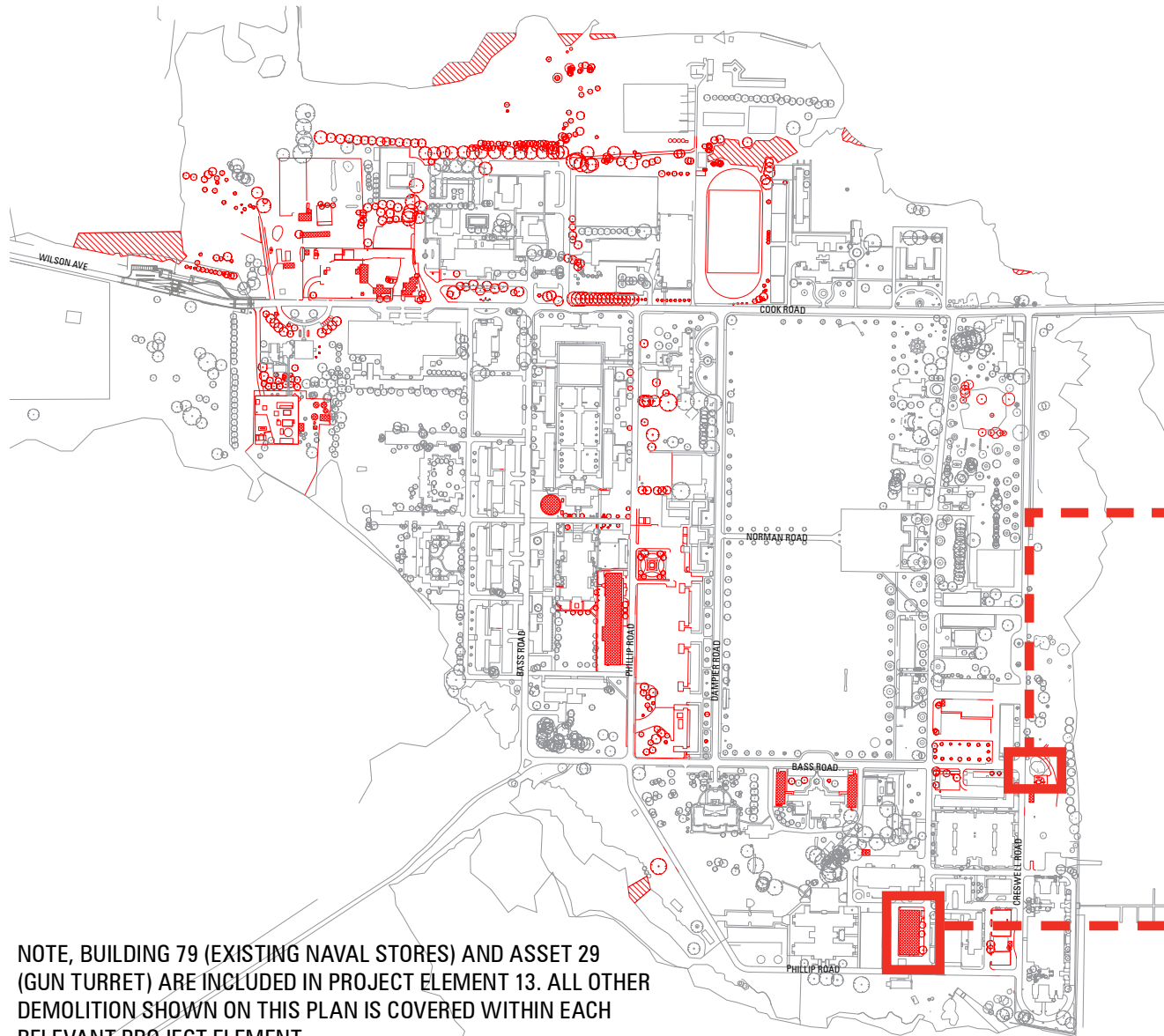
NEW BUILDING



**Attachment 17 to
HMAS *Cerberus* SOE
Dated June 2017**

**Project Element 13
Demolish Redundant Facilities**

Project Element 13: Demolish Redundant Facilities



NOTE, BUILDING 79 (EXISTING NAVAL STORES) AND ASSET 29 (GUN TURRET) ARE INCLUDED IN PROJECT ELEMENT 13. ALL OTHER DEMOLITION SHOWN ON THIS PLAN IS COVERED WITHIN EACH RELEVANT PROJECT ELEMENT.

SCALE : NTS

LEGEND

- EXISTING BUILDING REMAINING
- DEMOLITION



PHOTO OF ASSET 29



PHOTO OF ASSET 79

Attachment 18 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 14
Upgrade the Gas Reticulation System

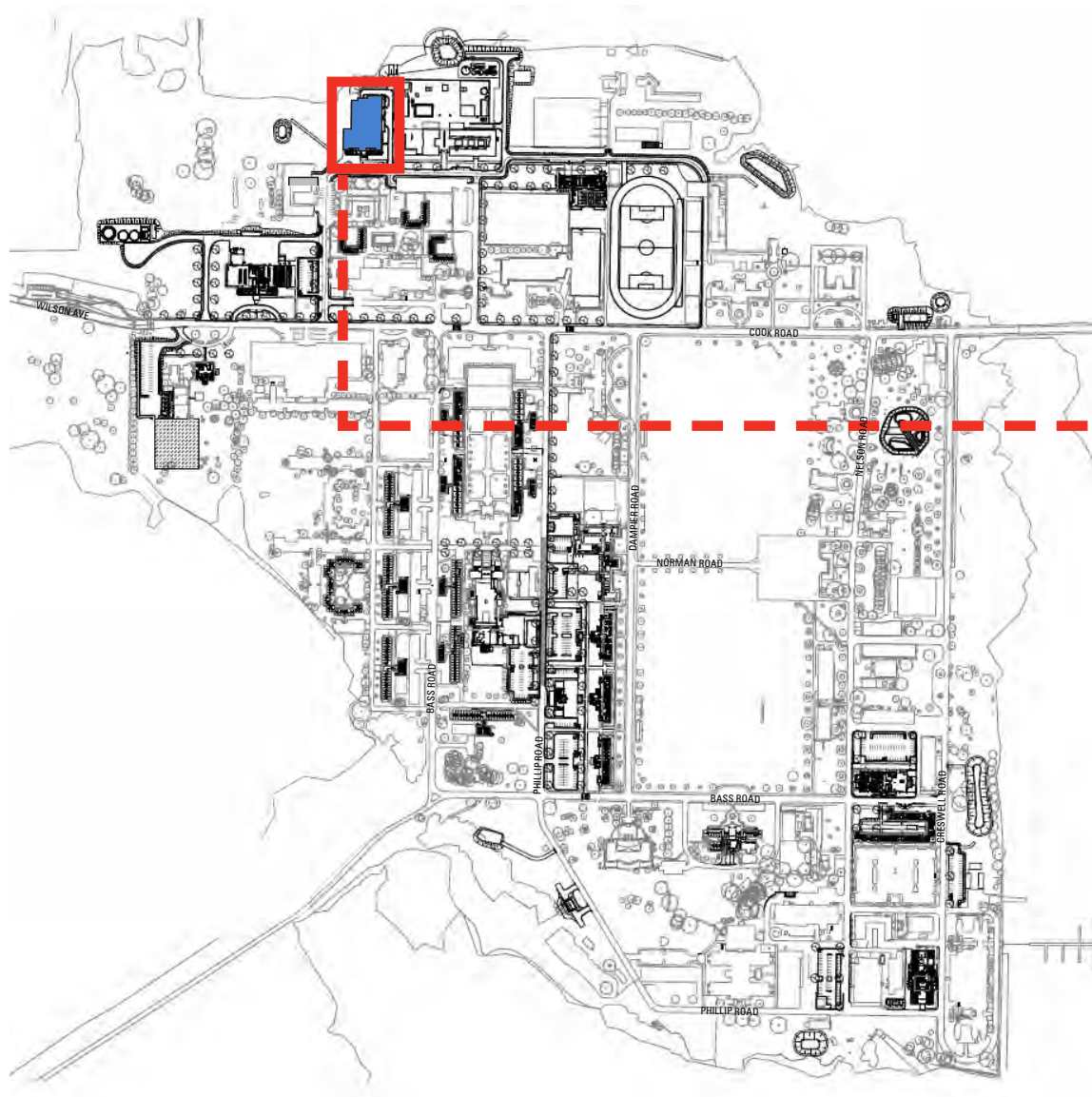
Project Element 14: Upgrade the Gas Reticulation System

DETAILS OF THIS PROJECT ELEMENT HAVE BEEN PROVIDED IN THE CONFIDENTIAL COST
ESTIMATE

Attachment 19 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 15
New Survival at Sea Training Facility

Project Element 15: New Survival at Sea Training Facility



LEGEND

- EXISTING BUILDING REMAINING
- NEW PROPOSED BUILDING
- MAJOR REFURBISHMENT
- MINOR REFURBISHMENT

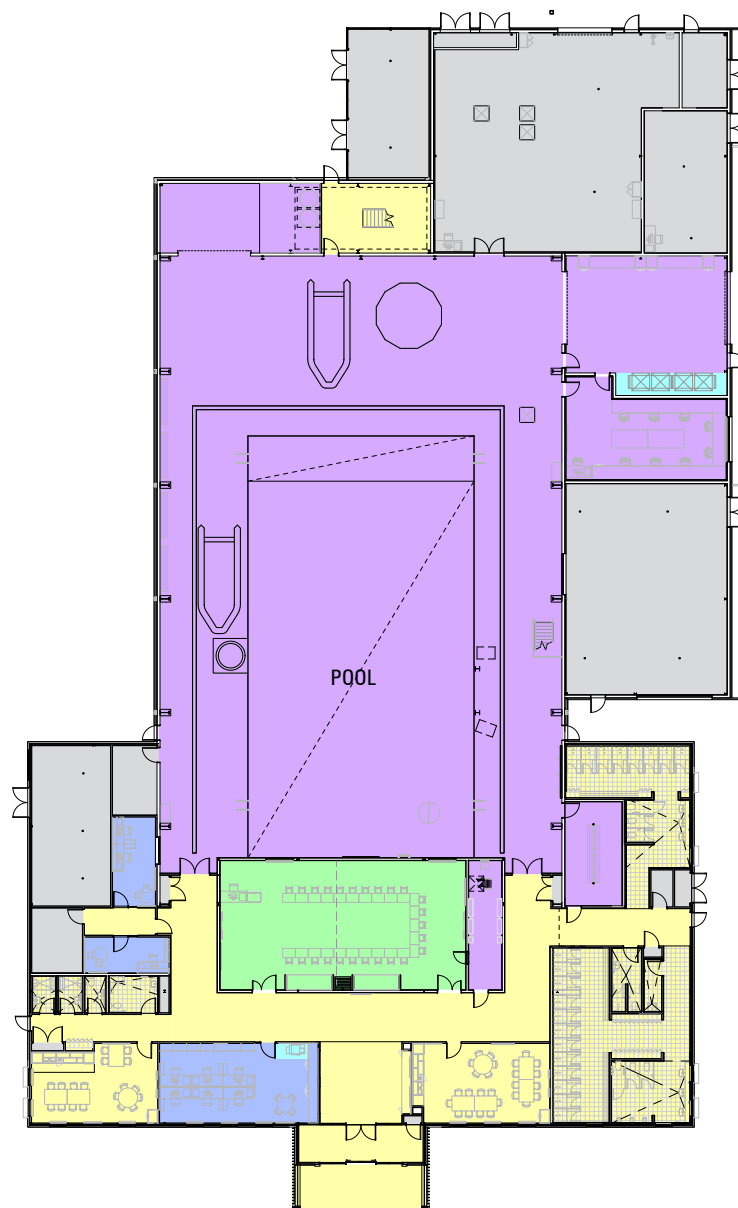


PERSPECTIVE OF SOUTH ENTRANCE LOOKING NORTH (NTS)

SCALE : NTS



Project Element 15: New Survival at Sea Training Facility



LEGEND

- AMENITIES / CIRCULATION
- TRAINING SUPPORT / POOL / POOL DECK
- OFFICE ACCOMMODATION
- SUPPORT SPACES
- PLANT
- THEORY TRAINING



SCALE : 1:500@A4

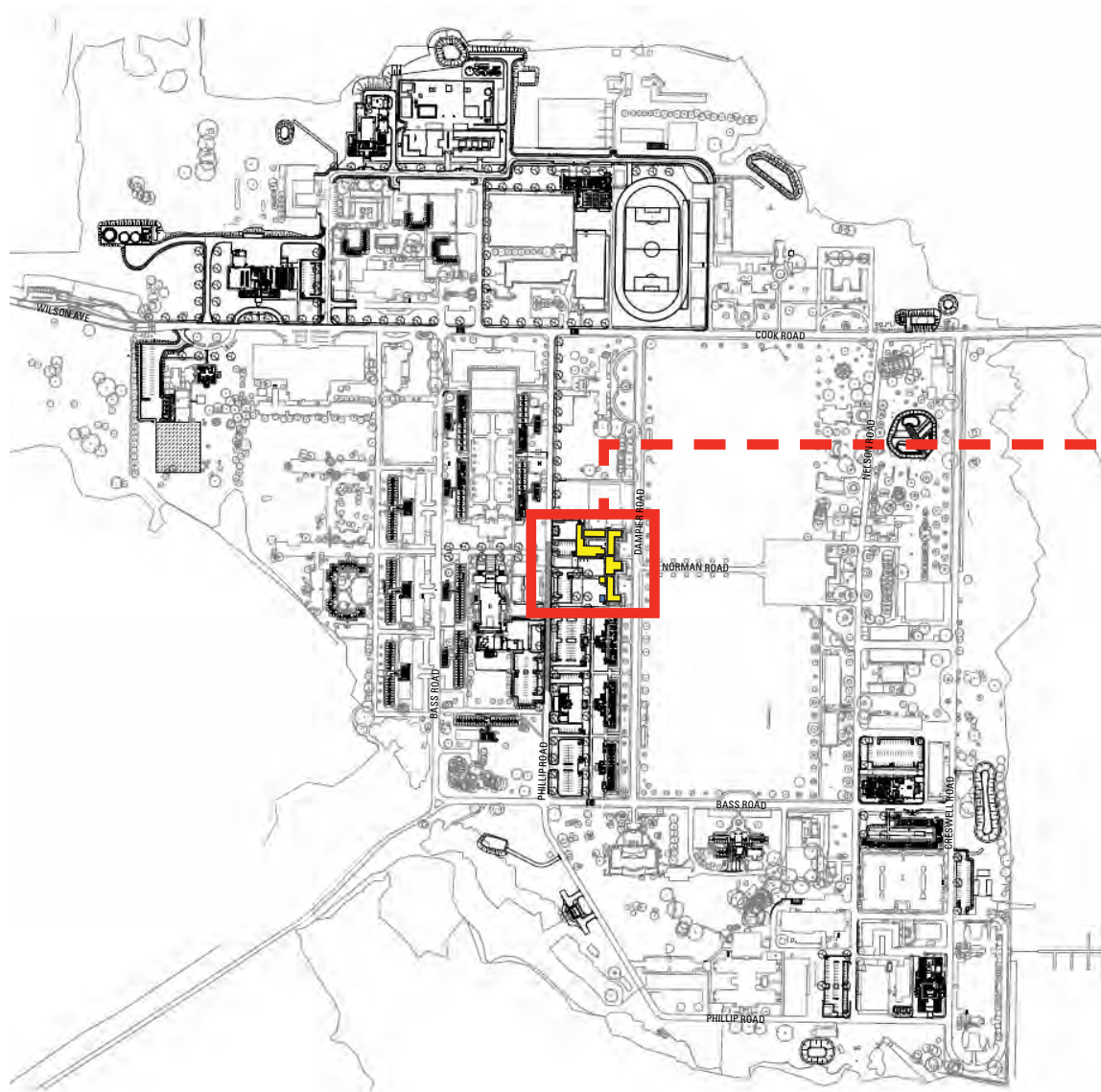
NEW BUILDING



Attachment 20 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 16
Refurbish Canteen

Project Element 16: Refurbish Retail Areas



SCALE : NTS

LEGEND

- EXISTING BUILDING REMAINING
- NEW PROPOSED BUILDING
- MAJOR REFURBISHMENT
- MINOR REFURBISHMENT



PERSPECTIVE OF MILLIES ENTRANCE LOOKING NORTH EAST (NTS)



Project Element 16: Refurbish Retail Areas



Attachment 21 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 17

Upgrade the Fuel System

Project Element 17: Upgrade the Fuel System

DETAILS OF THIS PROJECT ELEMENT HAVE BEEN PROVIDED IN THE
CONFIDENTIAL COST ESTIMATE

Project Element 17: Upgrade the Fuel System

DETAILS OF THIS PROJECT ELEMENT HAVE BEEN PROVIDED IN THE
CONFIDENTIAL COST ESTIMATE

Attachment 22 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 18

Upgrade additional Stormwater and Drainage Network

Project Element 18: Upgrade Additional Stormwater and Drainage

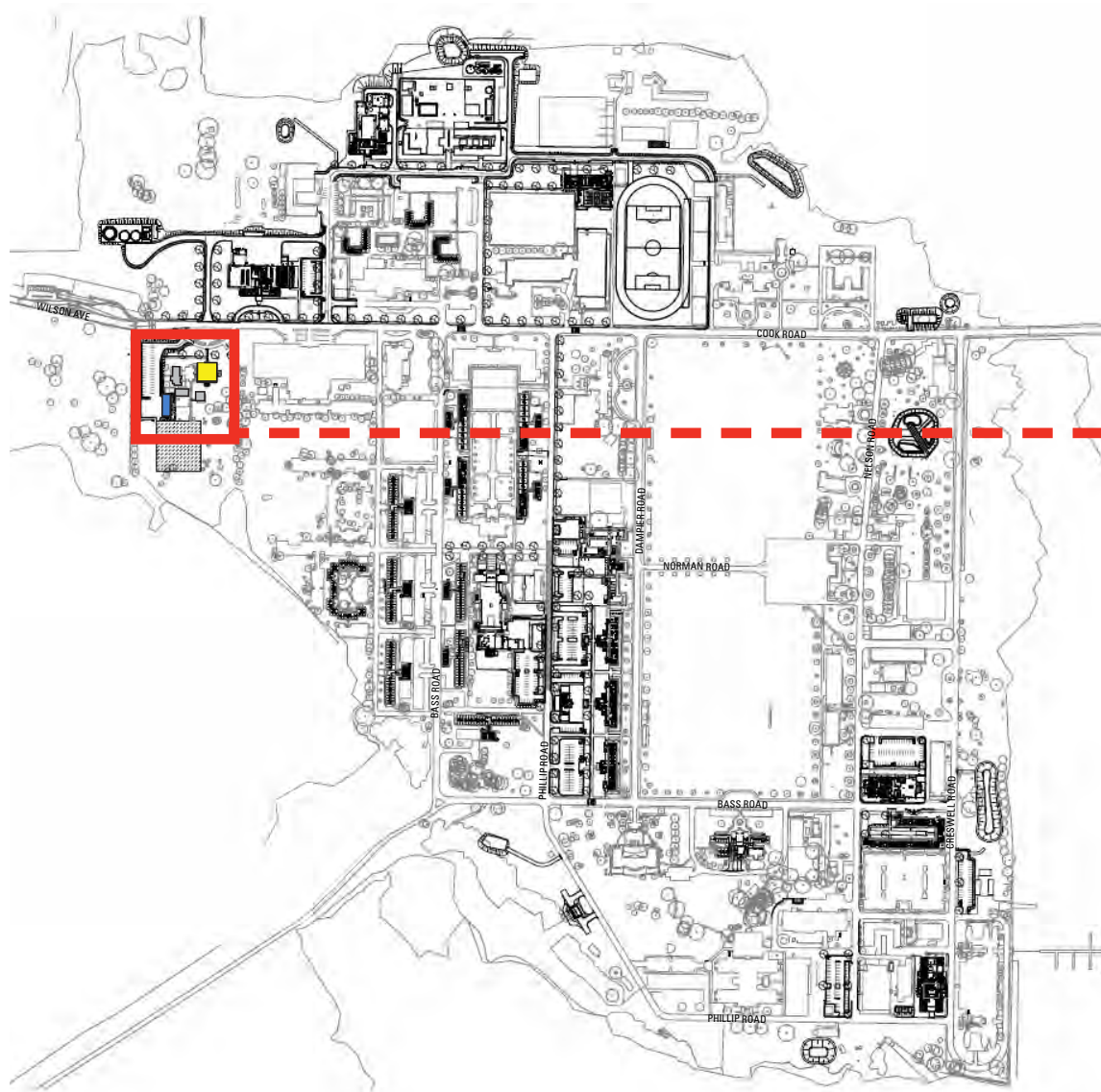


Attachment 23 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 19

Refurbish the Base Services Contractor Building

Project Element 19: Refurbish the Estate Maintenance Operational Services (EMOS) Contractor Building



OVERALL SITE PLAN - NTS

LEGEND

- EXISTING BUILDING REMAINING
- NEW PROPOSED BUILDING
- MAJOR REFURBISHMENT
- MINOR REFURBISHMENT

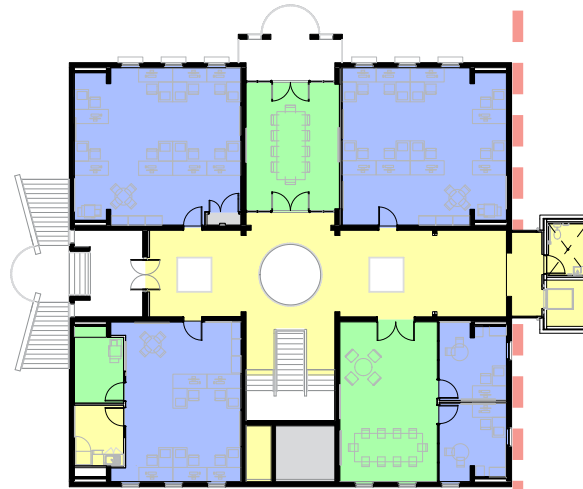


VIEW OF EXISTING BUILDING 300 LOOKING WEST



Project Element 19: Refurbish the Estate Maintenance Operational Services (EMOS) Contractor Building

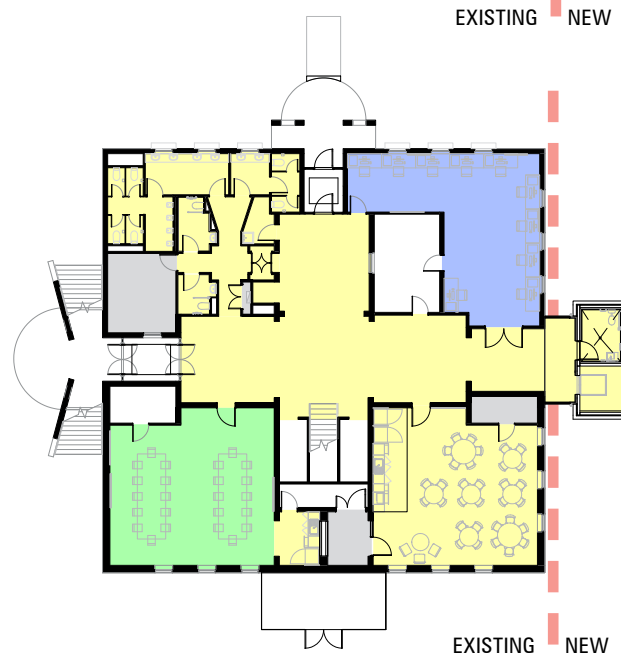
Level 01



LEGEND

- AMENITIES / CIRCULATION
- OFFICE ACCOMMODATION
- PLANT
- SHARED AREAS

Ground



SCALE : 1:400@A4

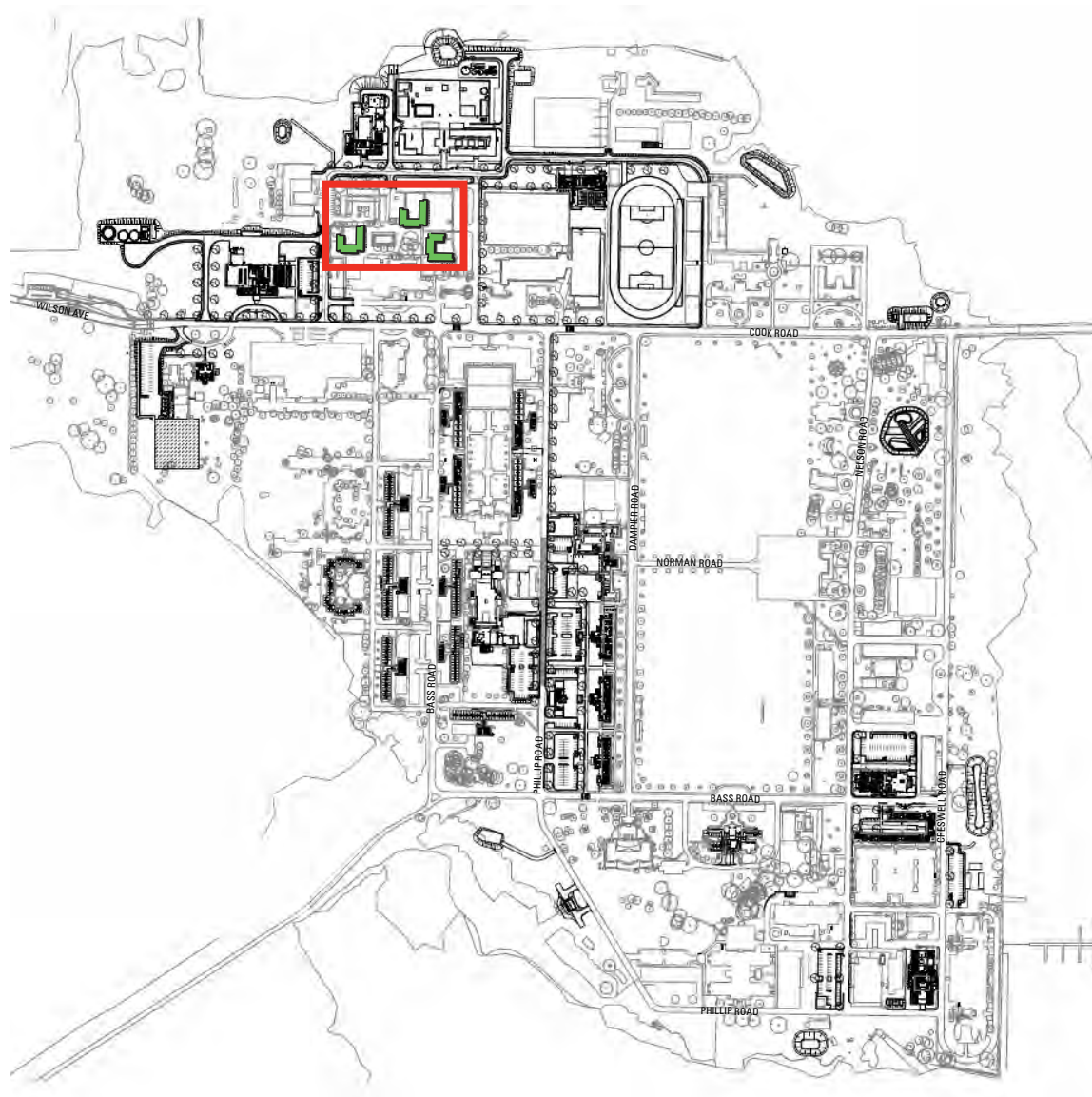
REFURBISHED BUILDING



Attachment 24 to
HMAS *Cerberus* SOE
Dated June 2017

Project Element 20
Refurbish the Senior Sailors LIA

Project Element 20: Refurbish the Senior Sailor's LIA



LEGEND

- EXISTING BUILDING REMAINING
- NEW PROPOSED BUILDING
- MAJOR REFURBISHMENT
- MINOR REFURBISHMENT

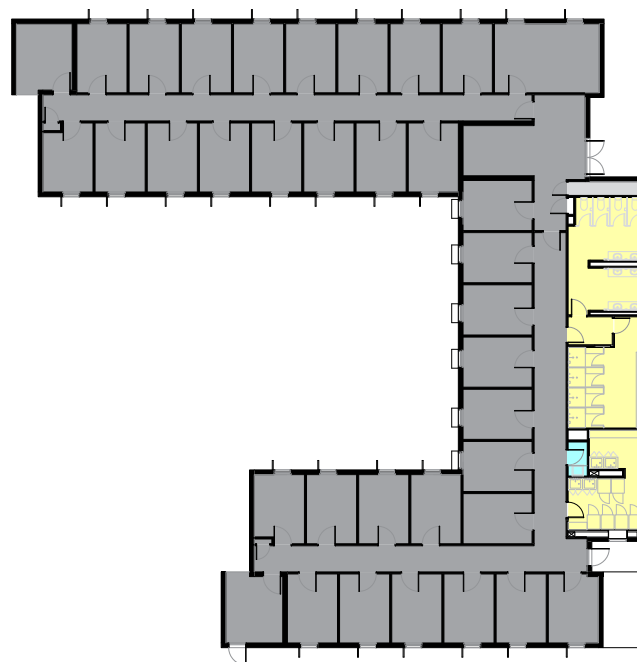
SCALE : NTS



Project Element 20: Refurbish the Senior Sailor's LIA

LEGEND

- AMENITIES
- NOT IN SCOPE
- EXTERNAL
- SUPPORT SPACES
- BUILDING SERVICES



Senior Sailor Building 268 shown as indicative example.
There are three identical levels that make up Building 268.
Buildings 267 and 269 are similar to 268 with differing cardinal orientation.

SCALE : 1:400@A4

REFURBISHED BUILDING

