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Australian Government

Department of Defence

HMAS PENGUIN AND PITTWATER ANNEXE REDEVELOPMENT

MOSMAN & CLAREVILLE, NSW

Statement of Evidence
to the
Parliamentary Standing Committee
on Public Works

Canberra, ACT

May 2010

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HMAS Penguin and Pittwater Annexe Redevelopment

Need for Works

Identified need

1. The Royal Australian Navy Dive School, the Submarine Underwater Medicine Unit, and the Re-Compression Chamber operate from existing facilities at HMAS Penguin and the Pittwater Annexe. These facilities were constructed in the 1940s to support weapons testing and maintenance of the submarine fleet. From the mid 1960s (HMAS Penguin) and during the mid 1980s (Pittwater Annexe) they have been used to support Navy diver training. Apart from the Re-Compression Chamber facility, none of the existing facilities were designed to support their current functions.
2. The existing facilities are now substandard and do not provide the functionality required to achieve Navy's training outcomes without inefficient 'work-arounds' being implemented. Engineering services infrastructure at both sites was installed in the 1940s and have exceeded their capacity and design life and they need significant renewal to sustain the current Navy workforce. The Gatehouse at HMAS Penguin no longer copes with the daily flow of vehicular traffic requiring security screening to access the base.

Options considered for meeting the need

3. Both HMAS Penguin and the Pittwater Annexe are uniquely located to provide quality dive training.
4. At the waterfront at HMAS Penguin, options considered to meet Navy's training needs focussed on solving the working accommodation shortcomings and collocating functions. Defence considered a range of possibilities from retention of the maximum number of existing buildings, to removal of all existing buildings and their replacement with new buildings.

5. The retention of all the existing buildings did not meet Navy's training functions, while a complete new build seriously affected the heritage values of the site. Defence's preferred option provides a balance between collocating Navy's training functions while preserving the significant heritage buildings in the waterfront precinct at HMAS Penguin. This option will provide functional accommodation to meet operational training requirements in a mix of refurbished existing and new buildings.
6. Options were also explored for improving the traffic management at the entry to HMAS Penguin. Considerations included the turning requirements of the vehicles and the need to provide queuing and parking facilities for vehicles entering the base, while drivers and passengers obtained security passes.
7. Options considered for improving the Pittwater Annexe facilities were aimed at accommodating the required functions within the existing building envelope, bringing the facility up to current building code compliance requirements, and minimising visual impact on the neighbouring properties.

Historical background

8. Commissioned on 14 July 1942, HMAS *Penguin* has filled various roles in providing support for operations, diving, health care and training. From 1948 to 1967, HMAS Penguin was home to the Royal Navy's Fourth Submarine Squadron before the First Australian Submarine Squadron was formed in 1968 and home-ported at HMAS *Platypus*, Neutral Bay. In the early 1960s, the RAN Hydrographic School was established at HMAS Penguin. With the departure of the Submarine Squadron, the RAN Diving School and the Submarine and Underwater Medicine Unit, occupied the site. In mid-1968, Clearance Diving Team 2 was transferred to Penguin. In 1985, a Re-Compression Chamber Facility was opened.
9. The Pittwater Annexe facility at Clareville was established in 1942 for the Navy to provide training in the handling and firing of torpedoes from ships. This training ceased in the mid 1980s. The firing station and outer wharf were subsequently removed and the facility converted for diving and hydrographic training as an annexe of the Royal Australian Navy Dive School at HMAS Penguin.

Heritage impact

10. A Heritage Impact Statement has been prepared for the proposed redevelopment. Defence's Estate Policy and Environment Branch have considered the Heritage Impact Statement for the proposed redevelopment in relation to the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The project is not likely to adversely impact on the Commonwealth Heritage Values of HMAS Penguin and Pittwater Annexe, and as such it is anticipated that a referral under the EPBC Act is not required.
11. The proposed redevelopment represents a compromise between the ideal functional outcomes and the constraints that apply at HMAS Penguin, including the need to minimise impacts on its heritage significance.

Environmental impact

12. An Environmental Impact Assessment prepared for the proposed redevelopment indicates that the siting of the proposed works will overlay existing developed areas and have no flora or fauna impacts. It is not anticipated that a referral will be required under the EPBC Act.
13. To mitigate any potential environmental impacts, the proposed redevelopment will be managed in accordance with the Defence Environmental Management framework, including compliance with the regional Environmental Management System. The Managing Contractor's environmental procedures for construction activities will comply with the approved Construction Environmental Management Plan. A Defence Environmental Clearance Certificate will be issued prior to commencing construction activity.

Key legislation

14. The following key legislation is relevant to this project:
 - a. *Environment Protection and Biodiversity Conservation Act 1999*; and
 - b. *Building and Construction Industry Improvement Act 2005*.

Impacts on local communities

15. The project will employ skilled construction workers in the North Sydney area over the construction period. This will provide a positive economic impact to small and medium businesses in the region.
16. Defence expects that local communities in both locations will have concerns about the impacts of construction activity. Defence also expects that local communities in both locations will have concerns about the impacts of the proposed redevelopment on the heritage and environmental values of the existing facilities. Defence will convene public meetings at both locations to inform local residents about the proposed redevelopment.

Consultation with stakeholders

17. Consultation has occurred, or will occur, with the list of stakeholders at Attachment 1.
18. Defence has been consulting with the Sydney Harbour Federation Trust regarding their approval of the proposed roundabout on Middle Head Road at the Entry and Gatehouse; and the proposed aerial high voltage power lines from the Mosman Zone Substation to HMAS Penguin.
19. Defence has consulted with the New South Wales National Parks and Wildlife Service. They manage the oval east of HMAS Penguin. The adjacent gravel carpark used by patrons of the oval is outside the base security fence, but located within the Defence property boundary. Defence is consulting about a mutually agreeable approach for accessing this carpark, during business hours and after hours.

Purpose of Works

Project location

20. HMAS Penguin and the Pittwater Annexe are located within the Sydney metropolitan area as shown at Attachment 2. The locations of the waterfront and gatehouse precincts at HMAS Penguin are shown at Attachment 3.

Project objectives

21. The key objectives of the project are to:
 - a. restore HMAS Penguin's existing engineering infrastructure to a fully serviceable condition;
 - b. provide additional working and training accommodation at the waterfront to relieve existing cramped accommodation and separate pedestrian and heavy vehicle movements;
 - c. provide a solution at the waterfront that allows for future development should that be required;
 - d. improve traffic management at the base entry on Middle Head Road, particularly the entry and egress arrangements; and
 - e. minimise disruption to operational units based at HMAS Penguin during the construction program.

Project description and scope of works

22. To meet these objectives the proposed redevelopment combines adaptive re-use and refurbishment of existing facilities and infrastructure, the construction of new buildings, and civil works, the provision of temporary facilities, some demolition and the upgrading of engineering services. The Royal Australian Navy Dive School will be relocated to temporary facilities at HMAS Penguin to allow the new facilities to be constructed at the waterfront of HMAS Penguin.
23. Six of the seven proposed project elements are at HMAS Penguin, with the seventh at the Pittwater Annexe. These project elements are described in paragraphs 24 to 34.
24. **Project Element 1 - Royal Australian Navy Dive School:** The two existing heritage waterfront buildings will be refurbished to support Navy Operations in Sydney Harbour, including preparations for diving and the full maintenance and preparation of Navy dive equipment, and drying rooms including instruction of all of these aspects to new divers. Building 48, closest to the waterfront will provide facilities to allow the divers direct access to

Hunters Bay, including drying rooms for wetsuits after diving. The Submarine Underwater Medicine Unit will vacate Building 47 to make way for change facilities, a waterfront classroom, store rooms and workshops to support the diving activities of adjacent Building 48. All these activities are currently conducted in cramped conditions in Building 48. As a result these facilities will accommodate new workshops, a classroom, and storage spaces for diving equipment.

25. The administration function for the Royal Australian Navy Dive School is currently accommodated in Building 46, with minor storage space in Building 45. It is proposed that this function will move into the new East Building. The new East Building requires the demolition of two non-functional buildings, buildings 50 and 51, to allow the construction of a new three-storey building that will directly support dive training operations in the two heritage buildings at the waterfront. The East Building provides additional waterfront training space on the ground floor, including support facilities for the adjacent Dive Training Pool, which replaces the functions provided by an existing demountable building (Building 51). On the next level, a complete suite of training rooms and a library are provided for teaching the theoretical aspects of diving. The second floor provides the administrative and support facilities for the Instructors, while also providing pedestrian access from the cliff-top behind the building. This pedestrian access point assists in minimising the number of pedestrian and heavy vehicle interactions on the waterfront hardstand.
26. The proposed plans for the waterfront precinct are shown at Attachment 4, with a view from Hunters Bay shown at Attachment 5. Plans of the proposed works for the Royal Australian Navy Dive School are shown at Attachments 6, 7, 8 and 9.
27. **Project Element 2 - Submarine and Underwater Medicine Unit:** The Submarine and Underwater Medicine Unit provides direct medical support to the Royal Australian Navy Divers. Due to the rigorous training regime, all Navy divers undertake a medical examination prior to embarking on their daily training regime. Medical support may also be required by some candidates during or after training. The unit is currently accommodated in cramped working conditions provided by Building 47, shared with accommodation for the Re-Compression Chamber Facility staff.

28. New facilities will be provided for the Submarine Underwater Medicine Unit by demolishing two existing buildings, buildings 45 and 46, currently occupied by Royal Australian Navy Dive School administrators. This will allow the construction of a new two-storey building, with a shared and common access with the Re-Compression Chamber Facility to enhance integration of these two related functions. This building will provide new medical treatment facilities on the ground floor, fully integrated with the Re-compression Chamber Facility and Dive School. The first floor provides additional consulting rooms, offices, and medical workshops in support of the medical centre activities on the Ground Floor. Pedestrian access is available from the cliff-top immediately behind the building. Plans of the proposed works for the Submarine and Underwater Medicine Unit are shown at Attachments 10 and 11. A photomontage from Hunters Bay of the current and proposed facilities on the waterfront for the Royal Australian Navy Dive School and the Submarine and Underwater Medicine Unit is shown at Attachment 12.
29. **Project Element 3 - Re-Compression Chamber Facility:** Re-Compression Chamber Facilities are currently located near its related functions of the Dive School and Submarine Underwater Medicine Unit, although staff also share parts of Building 47 with the Submarine Underwater Medicine Unit. Due to the critical nature and sensitivities attached with relocating the existing 10-man re-compression chamber, the function cannot be relocated. The existing re-compression chamber facilities will be refurbished and enhanced with a modest building extension to provide offices and staff amenities in a mezzanine floor above the 10-man re-compression chamber and associated plant room. A shared entry point with the Submarine and Underwater Medicine Unit will provide increased operational efficiencies between the units. Plans of the proposed works for the Re-Compression Chamber Facility are shown at Attachments 10 and 11.
30. **Project Element 4 - Waterfront Civil Works:** The paved areas of the waterfront play a vital function in the delivery of supplies, boat handling, congregation and briefing areas, in addition to providing an area to prepare for training operations. To enhance the support of these existing functions the existing uneven pavements in the waterfront precinct will be demolished, re-graded and re-laid utilising reinforced concrete. Storm water drainage will be diverted and processed by a gross pollutant trap prior to discharging into the harbour, providing an improved environmental outcome. The works will include seawall stabilisation, pavement replacement, new retaining walls, landscaping and minor modifications to the

existing waterfront access road. In-ground contamination will be remediated during redevelopment of the waterfront. An unused underground fuel storage tank will also be removed.

31. **Project Element 5 - Entry and Gatehouse:** Current limitations to entry in the base necessitate the operation of two entry points: one for small vehicles, and another for heavy vehicles. In addition to this, limited queuing space associated with the existing entry off Middle Head Road results in traffic having to queue back up Middle Head Road. To improve traffic flow at the entry to the base, the Gatehouse precinct will be reconfigured to provide a single entry point for both cars and heavy vehicles that also allows increased queuing and lay-by parking for the issue of passes. Construction of a new roundabout on Middle Head road and relocation of the existing flagpole are included in the works.
32. The proposed design of the Entry and Gatehouse precinct meets Defence's requirement for controlling and restricting access to the site, while minimising the impact of the base on local traffic movements. Carparking at the oval will be formalised to improve its efficiency and remain outside the base security fence. Access to the oval carparking will be controlled by a boom gate closed during business hours, and left open outside of normal business hours to permit public access to the oval. Plans of the proposed works for the Entry and Gatehouse precinct are shown at Attachments 13, 14, and 15.
33. **Project Element 6 - Infrastructure:** To meet current and future planned activities of the base, the engineering infrastructure requires significant replacement and upgrading. Infrastructure services to be replaced or upgraded by the project include high voltage electricity, voice communications, fire and security alarms, fire hydrant and sprinkler water supply, natural gas network, potable water, trunk sewerage drainage, and stormwater drainage. Plans of the proposed Electrical, Communications, Fire Services, Natural Gas, Water, Sewerage and Stormwater infrastructure works are shown at Attachments 16, 17, 18, 19, 20, 21, and 22 respectively.
34. **Project Element 7 - Pittwater Annexe:** Pittwater Annexe provides advanced diver training, following initial diver training that is provided at HMAS Penguin, and provides a variety of different dive environments, without the effects of tidal flow, due to the sand bar at the mouth of the Pittwater. The facility is used for 24 hour live-in training courses. While the existing

configuration of the building has significant shortcomings, it will be re-used, refurbished and internally altered to allow for mixed classes of occupancy under the Building Code of Australia. To improve the amenity and efficiency of conducting a variety of training courses, the floor area will be increased by incorporating a mezzanine floor within the existing building envelope. The exterior of the existing building has recently been refurbished. Only minor works external works are proposed to provide a covered entry, several new highlight windows and an ambulance bay. Plans of the proposed works at Pittwater Annexe are shown at Attachments 23 and 24.

Details and reasons for site selection

35. The sites at both HMAS Penguin and Pittwater Annexe are uniquely suited for dive training and no other sites were considered to locate support facilities for the Royal Australian Navy Dive School, the Submarine Underwater Medicine Unit, and the Re-Compression Chamber.
36. The location at HMAS Penguin provides ready access for Navy divers to a deep ocean training environment just outside Sydney Heads. While HMAS Watson is closer to this dive area, ready access to the ocean is not available from this establishment. The location at Pittwater Annexe provides a wide range of diving environments for the training of Navy divers, allows for 24 hour operations with minimal disruption to local residents, while also being free of tidal surge due to a large sand bar at the mouth of the Pittwater.
37. The proposal achieves a balanced approach between re-use of existing facilities and building new. It also acknowledges the significant heritage and environmental values of the site and minimises the cumulative impact of the proposal. The development at Pittwater Annexe is cognisant of the need to continue training at the site, while limiting the visual impact of the proposal or negatively affecting the amenity of local residents.

Public transport

38. HMAS Penguin is serviced by Sydney Buses. However, the bus route to major city centres is indirect, and as a result the service is not well patronised by Defence personnel, resulting in a high dependency on private motor vehicles. Pittwater Annexe is not serviced by Sydney Buses. Courses attending the Pittwater Annexe facility are transported to the site by 22 seat Defence vehicles, because there is limited carparking on site.

Local road and traffic concerns

39. The proposed redevelopment does not increase personnel numbers at either HMAS Penguin or the Pittwater Annexe. As a result, Defence does not foresee any change in the current use or vehicle numbers accessing either site.
40. The proposed works at the Entry and Gatehouse will be increase the off-road queuing space for vehicles waiting to enter the base, and parking for people requiring passes. These works are expected to improve the traffic flow on Middle Head Road.

Zoning, local approvals and land acquisition

41. HMAS Penguin is on Commonwealth owned and Defence controlled land. The Sydney Harbour Federation Trust owns the portion of Middle Head Road in front of the base. The Sydney Harbour Federation Trust will be required to approve the external road works associated with the new site entry and the proposed infrastructure work on Middle Head Road. The proposed works at the Pittwater Annexe are within the boundaries of the site that is Commonwealth owned and Defence controlled land.
42. The proposed redevelopment does not require acquisition of additional land or involve land disposal aspects. There will be no change to existing land use conditions at either site.

Planning and design concepts

43. The proposed designs provide a safe, efficient and pleasant workplace. The proposed designs provide the required functional requirements and also offer economy in relation to floor area, construction techniques, buildability, and finishes. The proposed designs have considered the impact of the materials, construction techniques, finishes, equipment and building systems on the life cycle cost of the facilities.
44. Capital costs have been balanced against forecast operational and maintenance costs in the selection of building services and equipment. Particular consideration has been given to energy efficient solutions employing passive solar and to water conservation initiatives. Buildings have been sited to ensure that future expansion is possible. Improvements are being made to the in-ground services. New mechanical plant is modular to ensure long-term flexibility.

Structural design

45. The new buildings at HMAS Penguin will be concrete-framed structures with concrete floor slabs and metal deck roofs. Internal walls are non-load bearing frames, lined with plasterboard to provide maximum flexibility in future layout. External walls will be concrete panels with curtain wall glazing. A metal louvre sun screening system will be installed. Existing buildings will maintain their original features, extending timber columns and steel roofs to accommodate modifications where necessary. Original roof and external finishes will be retained where feasible.

Materials and furnishings

46. Materials and finishes have been selected at the waterfront at HMAS Penguin to blend with the cliff face and harmonise with the façades of the historic buildings. Roofing and rainwater fittings have also been selected for their superior resilience to the marine environment.
47. Materials and finishes for the Control Booth at the Gatehouse have been selected to be sympathetic to the adjacent Gatehouse building. The only modification to the existing historic gatehouse building will be the creation of a new servery in an existing window opening.

Mechanical services

48. The mechanical services for each building have been designed according to the function and needs of each building. The purpose of the mechanical service systems is to provide mandatory ventilation, thermal comfort and air quality facilities in accordance with specific user needs and the requirements of the Building Code of Australia.

Hydraulic services

49. A new hydraulic and sewer network will be provided to the HMAS Penguin waterfront precinct. Potable water will be connected to the existing supply, with roof water collected and stored in two underground storage tanks. Collected water will be used for toilet flush and other non-potable uses. The sewer will utilise the existing underground sewerage pumping station to pump to the existing sewer network.

Electrical services and fire protection

50. Lighting, power, lightning protection and fire detection will be provided in accordance with Australian Standards and Defence's engineering requirements.
51. Electrical infrastructure and switchboards will have spare capacity to allow for future growth. The High Voltage supply to HMAS Penguin will be increased to allow for modest growth in demand. Sub-metering will be included to each re-used and new building. The meters will be monitored through a new Building Management System, which will support an active energy management program on the site.
52. Fire detection systems, indication panels, emergency and exit lighting will be provided to the new facilities in accordance with Australian Standards, with indicator panels at the Gatehouse. All construction and fire protection requirements will be in accordance with the Building Code of Australia, the Defence Manual of Fire Protection Engineering and all other applicable Codes and Standards.

Acoustics

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

Landscaping

54. This proposal will not cause any substantial change in the essential landscape character of the site. Landscaping works will restore areas disturbed during construction and provide general improvement to the built environment. Precautions will be taken to avoid compromising environment sensitivities by adopting landscaping practices in accord with local environmental conditions and the Construction Environmental Management Plan.

Water and energy conservation measures

55. The ecologically sustainable measures for the project are balanced with other requirements for Defence buildings, including security, heritage and occupation health and safety considerations, to ensure that Defence's operational capability is not compromised.

56. All buildings are designed and will be constructed, operated and maintained to ensure that they use energy efficiently. To achieve this buildings will comply with:
- a. Part I.2 and Section J of Volume One of the Building Code of Australia;
 - b. Part 3.12 of Volume Two of the Building Code of Australia;
 - c. The Energy Efficiency in Government Operations (EEGO) policy; and
 - d. Defence Green Building Requirements Policy.
57. In addition to the above, all new offices and offices subject to major refurbishment will comply with the minimum energy performance standards in the EEGO policy. Buildings that are to comply are the proposed Royal Australian Dive School East, Submarine Underwater Medicine Unit, Re-Compression Chamber Facility and Pittwater buildings. Although not specifically identified by legislation, enhanced environmental outcomes will be achieved on the major refurbishment of the historic buildings 48 and 47 at the waterfront. No specific legislation or opportunities exist for improved environmental performance with the partial refurbishment of the existing Gatehouse Building.
58. All buildings affected by the redevelopment will have separate digital on market status metering installed and office lighting will not exceed 10 W/m². Office accommodation will achieve not less than 4.5 stars Australian Green House Building Rating (AGBR). The AGBR rating tool will be used as a framework to guide design for facilities where no specific AGBR category exists. This will be confirmed with energy modelling during the detailed design process. Defence will develop an energy management plan for implementation. Where available, fit for purpose and cost-effective appliances will be US EPA 'Energy Star' compliant with power management features enabled at the time of supply.
59. New facilities will achieve a 30% reduction in water use against similar contemporary equivalent buildings, based on the proposed Water Efficiency Labelling System rating.
60. A significant environmental outcome for this project will be the treatment of all stormwater from the site from buildings, roads and hardstands, that currently drains straight into Sydney Harbour. The water will be treated via new gross pollutant traps prior to discharging to the Harbour.

61. The Australian Greenhouse Office, in the Department of the Environment and Water Resources, has been consulted with respect to these energy efficiency requirements.

Demolition and disposal of existing structures

62. It is proposed to demolish buildings 45, 46, 50 and 51 at HMAS Penguin. Demolished materials will be separated and recycled where possible. Roof tiles that are no longer commercially available will be removed from B46 and retained to supplement and replace broken tiles on asset B47 and B48. The demolitions are in accordance with the Defence Heritage Management Plan for the site, and have been addressed in the Heritage Impact Statement.

Zone planning

63. While there is no current Zone Plan for the HMAS Penguin site, the site planning for the proposed redevelopment has been agreed with Defence's Estate Planning Branch. This has limited impact on this project, as the project is replacing like with like functions in their existing locations. The HMAS Penguin Zone Plan is scheduled for completion by mid-2011, along with Zone Plans for other Defence properties in the Sydney area.

Provisions for people with disabilities

64. Access and facilities for the disabled will be provided where necessary in accordance with the Building Code of Australia, Australian Standard AS1428 and Defence's policy 'Disabled Access and Other Facilities for Disabled Persons'. A full sized passenger elevator will be provided in both the new three-storey building and the new two-storey buildings on the waterfront at HMAS Penguin.
65. Dispensations will be sought where operational requirements are inconsistent with Building Code of Australia requirements. The nature of some facilities occupied by military personnel can preclude disabled access.

Childcare provisions

66. There is no requirement for additional childcare facilities, as this project does not increase the base population.

Occupational health and safety measures

67. The facilities to be provided under this project will comply with 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.
68. In accordance with Section 35(4) of the *Building and Construction Industry Improvement Act 2005 (Commonwealth)*, contractors will hold full occupational health and safety accreditation from the Office of the Federal Safety Commissioner under the Australian Government Building and Construction Occupational Health and Safety Accreditation Scheme. All construction sites will be appropriately secured to prevent public access during the construction period. No special or unusual public safety risks have been identified.

Cost-effectiveness and public value

Outline of project costs

69. The estimated cost of this project is \$63.34 million, excluding Goods and Services Tax, which includes all delivery costs for management and design fees, construction costs, furniture, fittings and equipment, contingencies and an allowance for escalation.
70. Net operating costs associated with the proposed redevelopment are projected to increase due to the construction of new and re-used facilities containing more technical and environmentally compliant equipment.

Details of project delivery system

71. A Project Manager / Contract Administrator will be appointed by the Commonwealth to manage the proposed works and administration of the contracts for construction. A Managing Contractor, using the Defence form of Managing Contactor Contract, will be appointed to control the completion of design development; procurement of trades, and construction of the proposed works. The Managing Contractor will provide the Commonwealth with buildability experience and fitness for purpose warranties while promoting access for small to medium enterprises through sub-contact design and construction trade packages.

Construction schedule

72. Subject to Parliamentary clearance of the proposed redevelopment, construction is expected to commence in early 2011 and be complete by mid 2013.

Public value

73. The proposed redevelopment contributes significantly to Navy capability by providing effective new and re-used facilities at HMAS Penguin and Pittwater Annexe for Royal Australian Navy Divers.
74. Where functionally feasible, existing facilities have been re-used to meet the training and administrative needs of a modern Navy and to minimise operating costs and environmental and heritage impacts. The cost of investment, both in capital and operating terms, has been optimised in a number of proposed purpose designed facilities to maintain heritage and environmental values. The proposed redevelopment of facilities includes the renewal of engineering services infrastructure to ensure these services will be adequate for the next 30 years.

Revenue

75. No revenue will be derived from this proposal.

Attachment 1: Stakeholder List

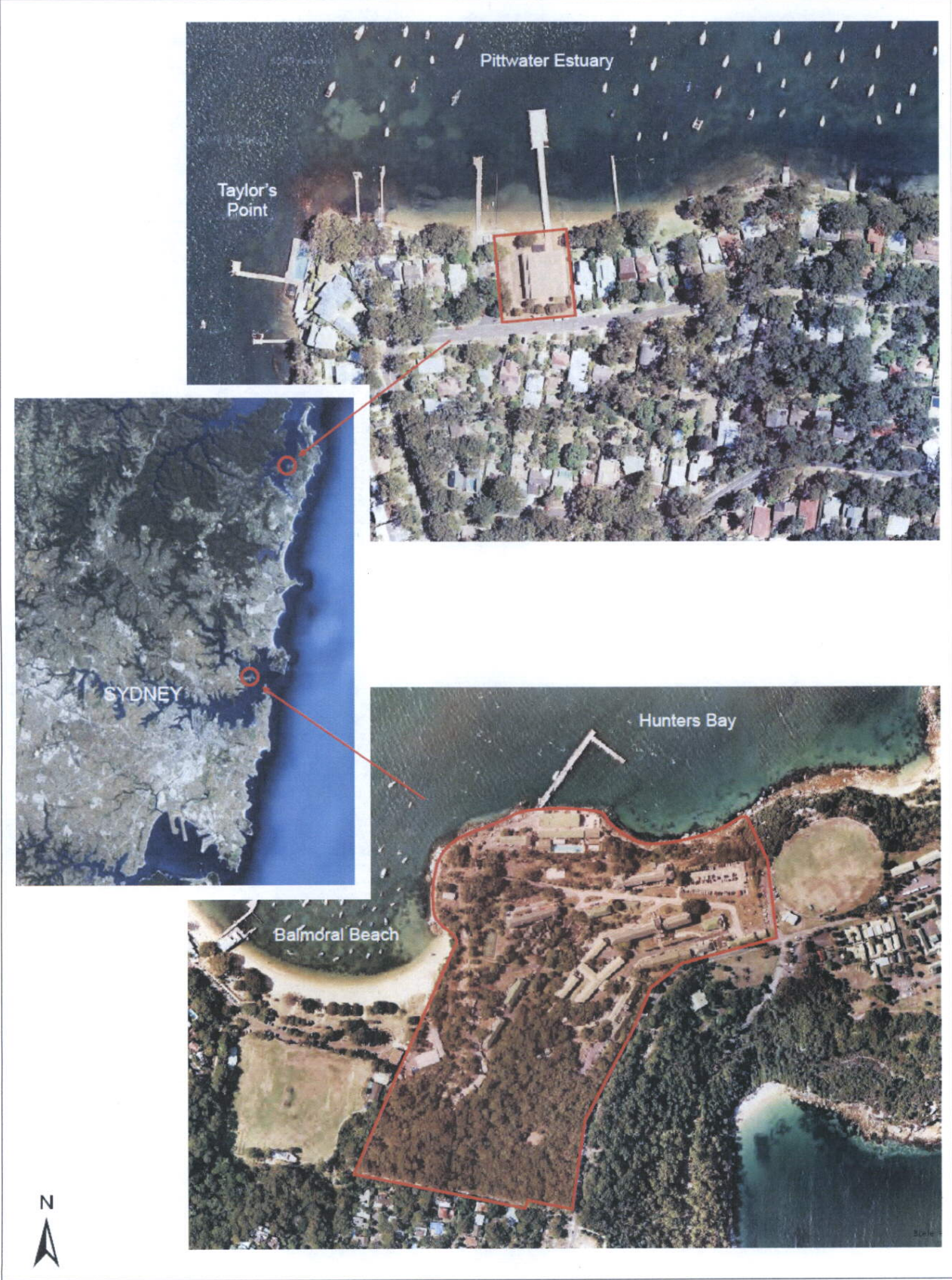
HMAS Penguin

- a. Federal Member for Warringah, Hon Tony Abbott MP
- b. State Member for North Shore, Mrs Jillian Skinner MP
- c. Mosman City Council
- d. Sydney Harbour Federation Trust
- e. New South Wales National Parks and Wildlife Service
- f. Middle Head Preservation Group
- g. RSL Mosman Sub-Branch
- h. Sydney Water
- i. The Australian Greenhouse Office

Pittwater Annexe

- a. Federal Member for Mackellar, Hon Bronwyn Bishop MP
- b. State Member for Pittwater, Mr Robert Stokes MP
- c. Pittwater City Council
- d. Hawkesbury Nepean Catchment Management Authority
- e. RSL Pittwater Sub-Branch
- f. Sydney Water
- g. The Australian Greenhouse Office

Attachment 2: Site Locations



Attachment 3: HMAS Penguin Site Plan



Attachment 4: HMAS Penguin Waterfront Precinct – Proposed



Attachment 5: HMAS Penguin Waterfront – View from Hunters Bay
North Elevation



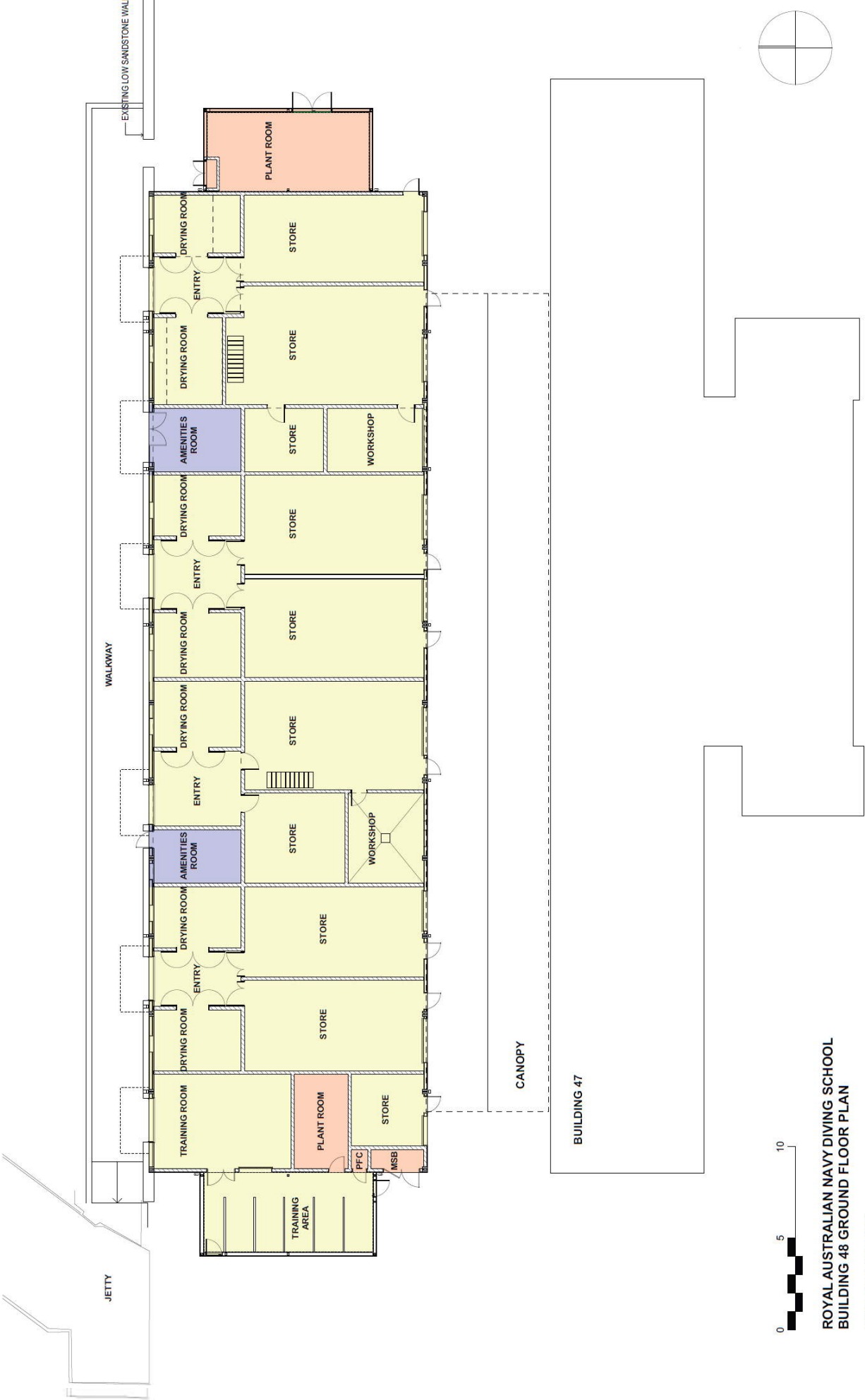
Royal Australian Dive School
East Building - New Building

Royal Australian Dive School
Building 48 - Existing Building

Submarine Underwater Medicine
Unit Building - New Building

View from Hunters Bay

Attachment 6: Royal Australian Navy Dive School – Building 48



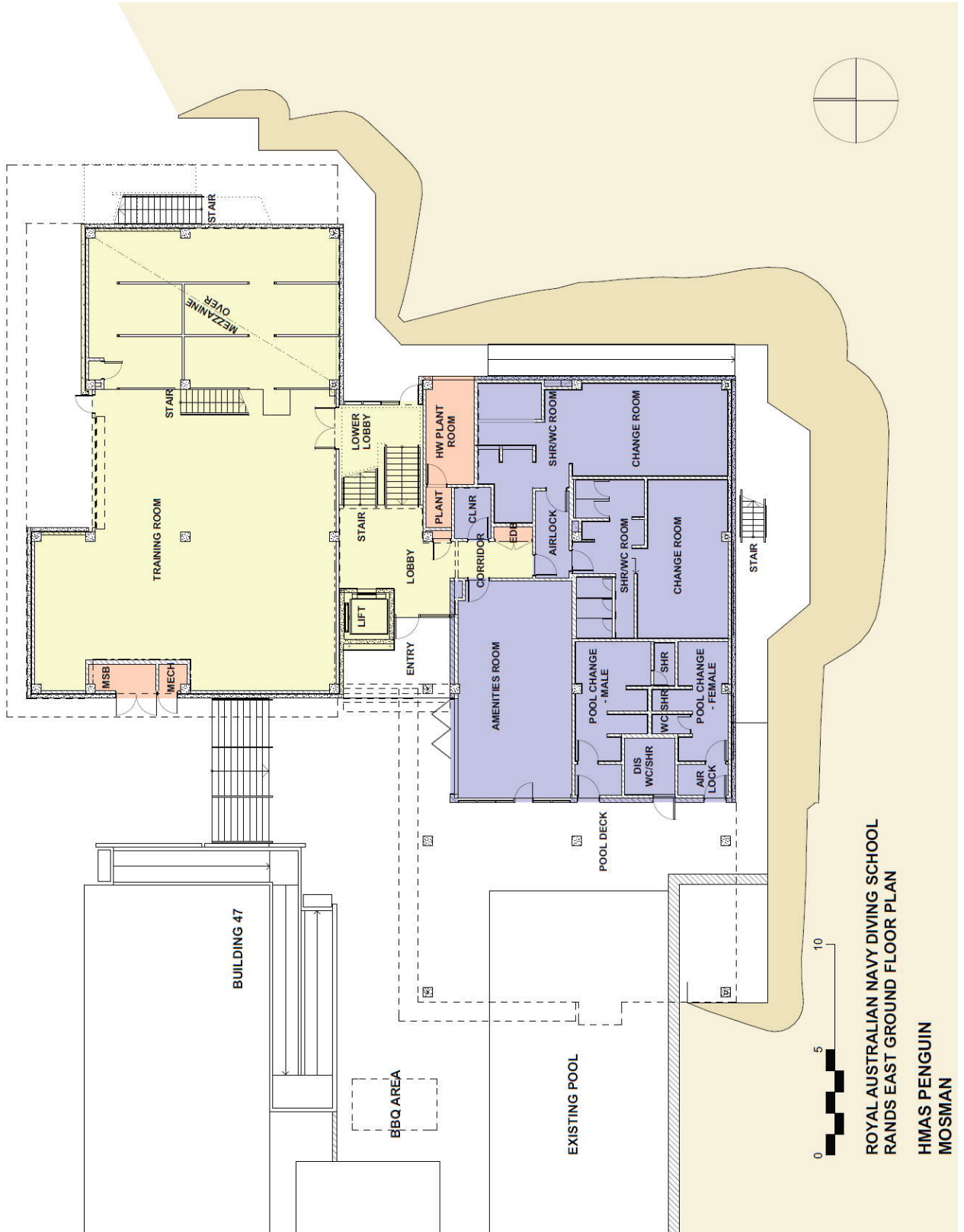
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 ROYAL AUSTRALIAN NAVY DIVING SCHOOL
 BUILDING 48 GROUND FLOOR PLAN
 HMAS PENGUIN
 MOSMAN

Attachment 7: Royal Australian Navy Dive School – Building 47



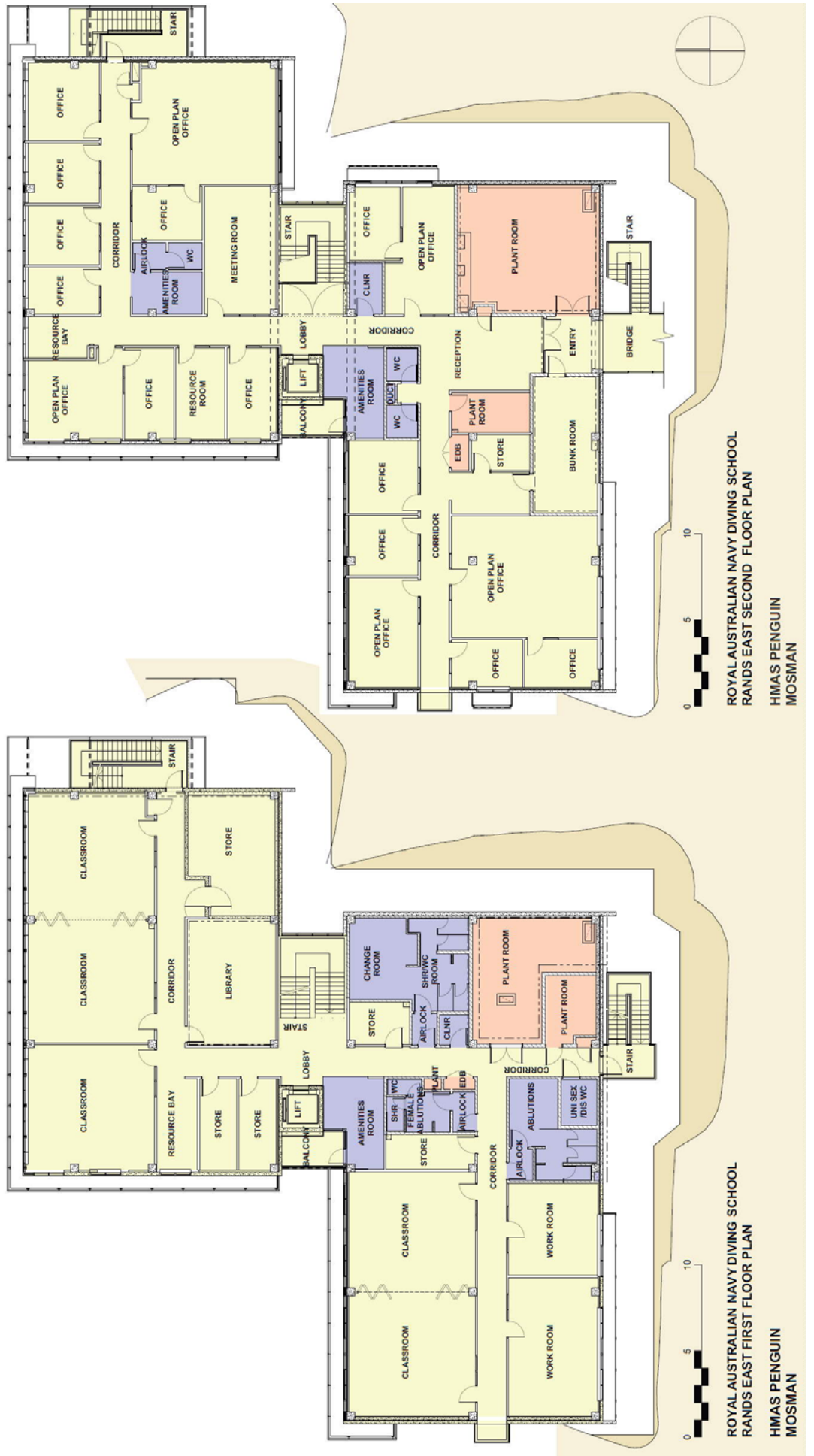
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 MOSMAN

Attachment 8: Royal Australian Navy Dive School – Building East – Ground Floor

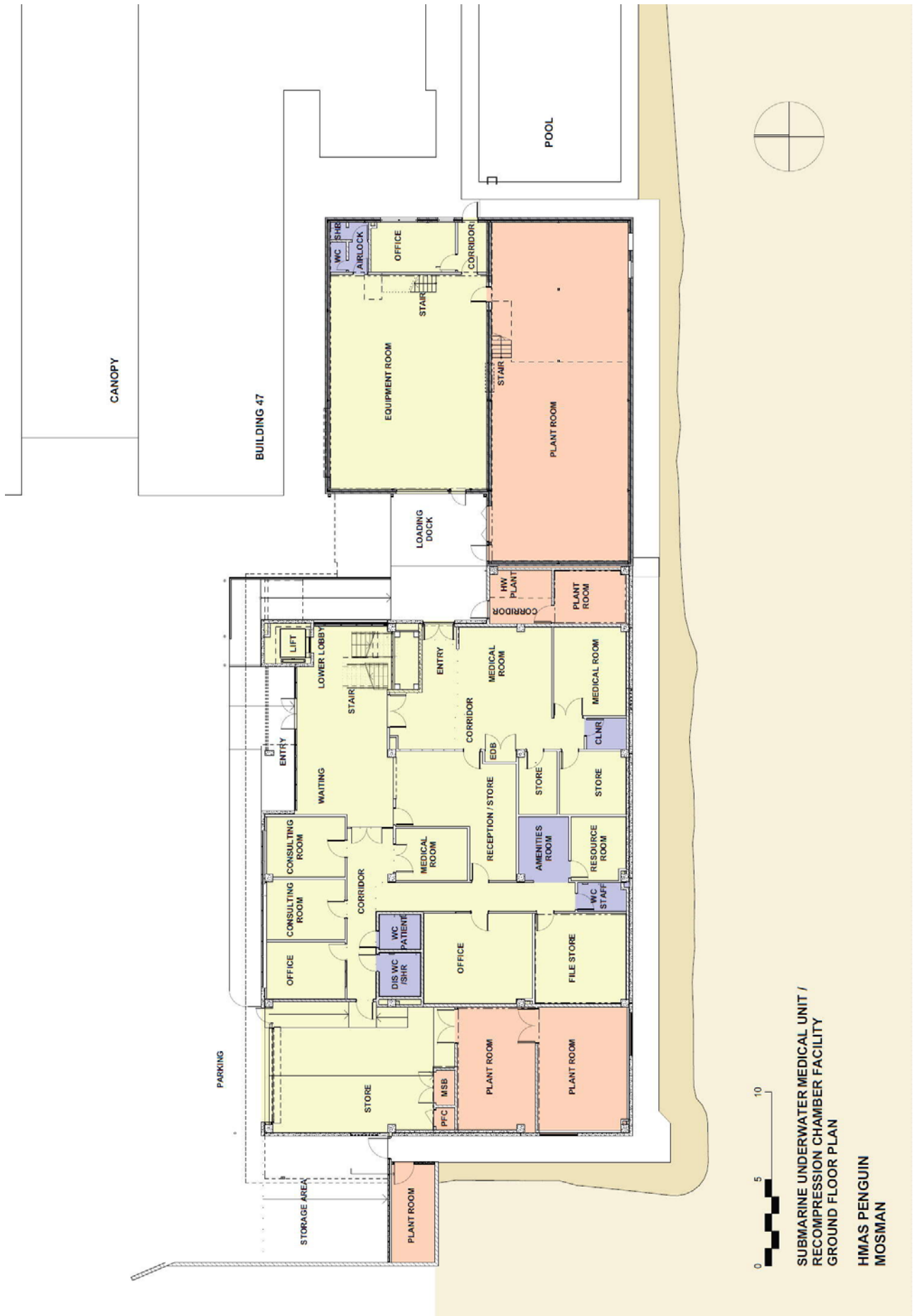


ROYAL AUSTRALIAN NAVY DIVING SCHOOL
RANDS EAST GROUND FLOOR PLAN
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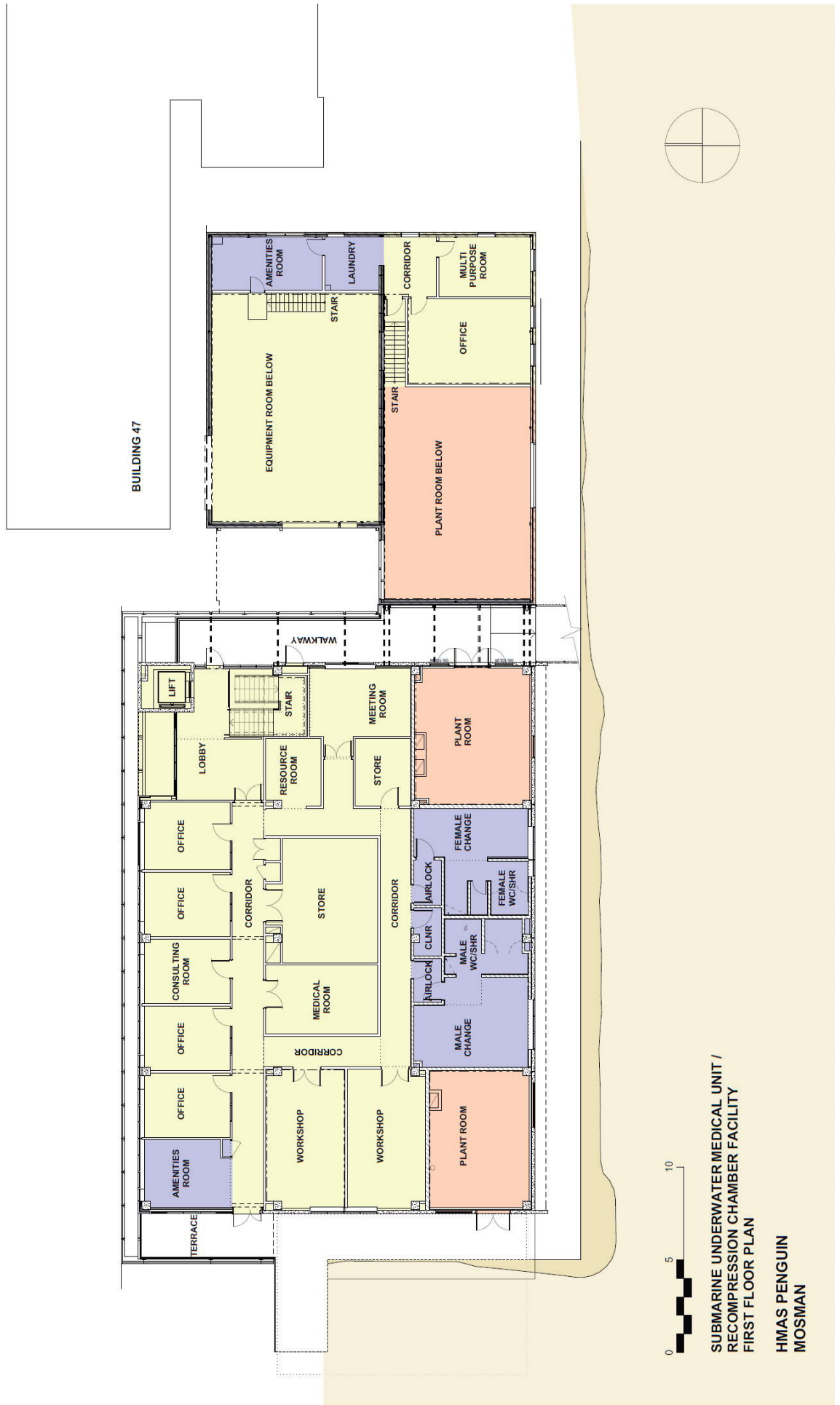
Attachment 9: Royal Australian Navy Dive School – Building East – 1st & 2nd Floors



Attachment 10: Submarine Underwater Medicine Unit and Re-Compression Chamber Facility – Building 30 – Ground Floor



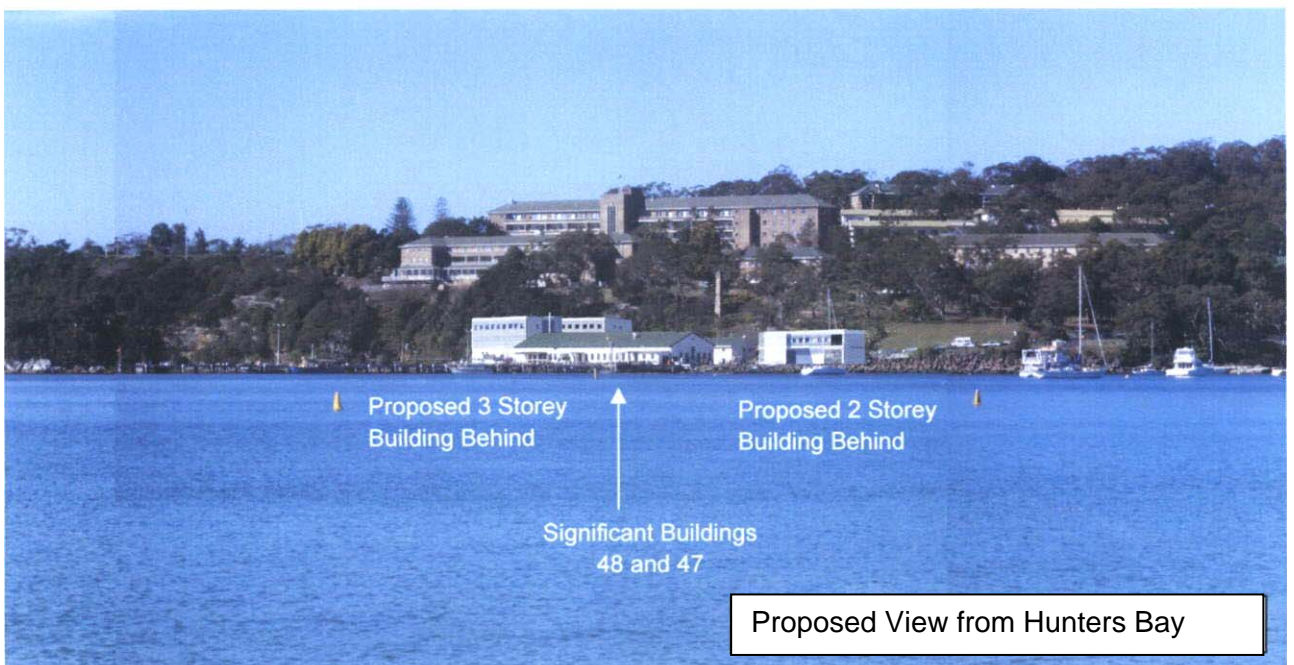
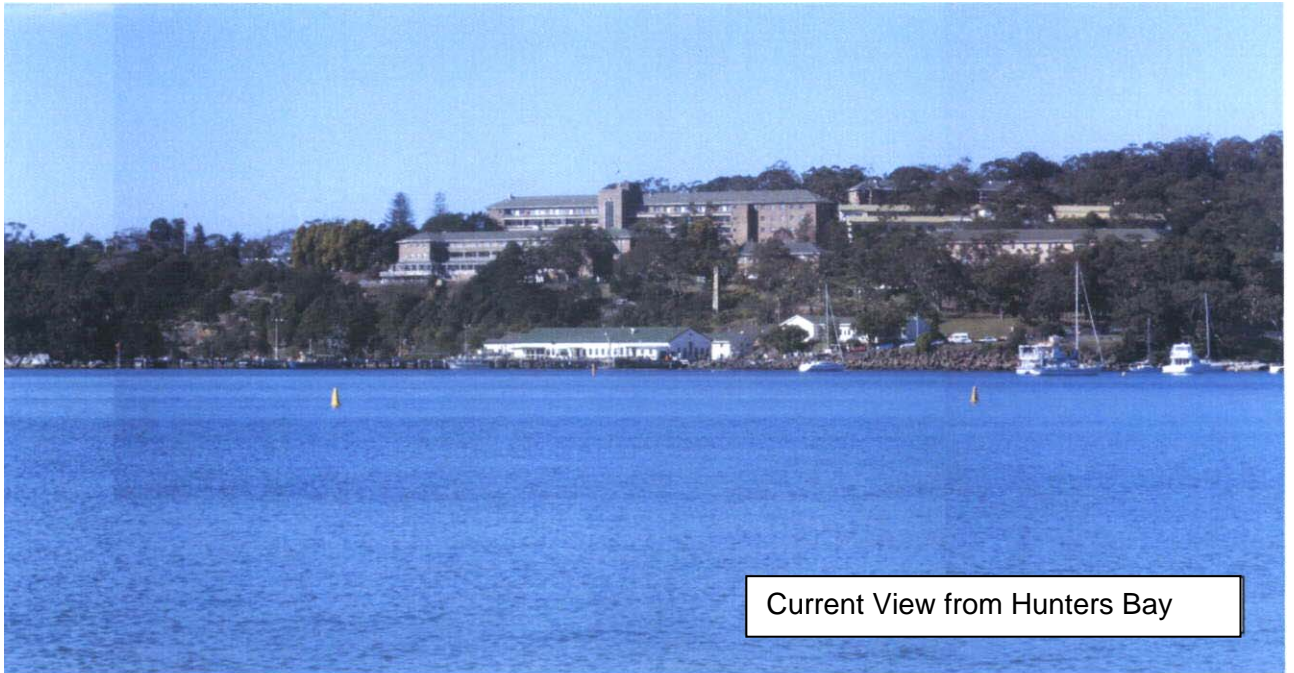
Attachment 11: Submarine Underwater Medicine Unit and Re-Compression Chamber Facility – Building 30 – First Floor



SUBMARINE UNDERWATER MEDICAL UNIT /
 RECOMPRESSION CHAMBER FACILITY
 FIRST FLOOR PLAN

HMAS PENGUIN
 MOSMAN

Attachment 12: Photo Montage – View to HMAS Penguin from Hunters Bay

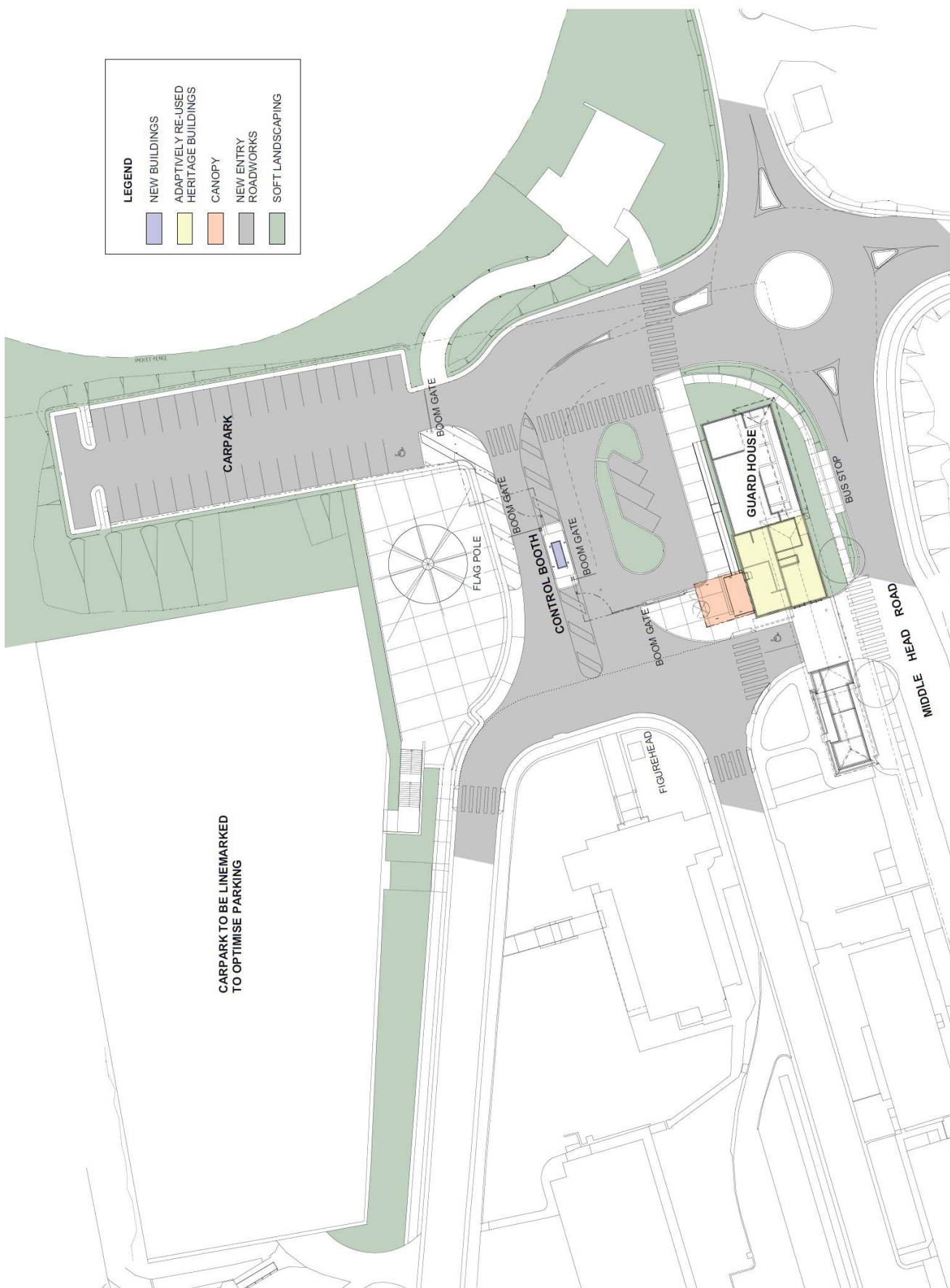


Attachment 13: HMAS Penguin Entry Precinct – Existing



Gatehouse Precinct - Existing

Attachment 14: HMAS Penguin Entry Precinct – Proposed

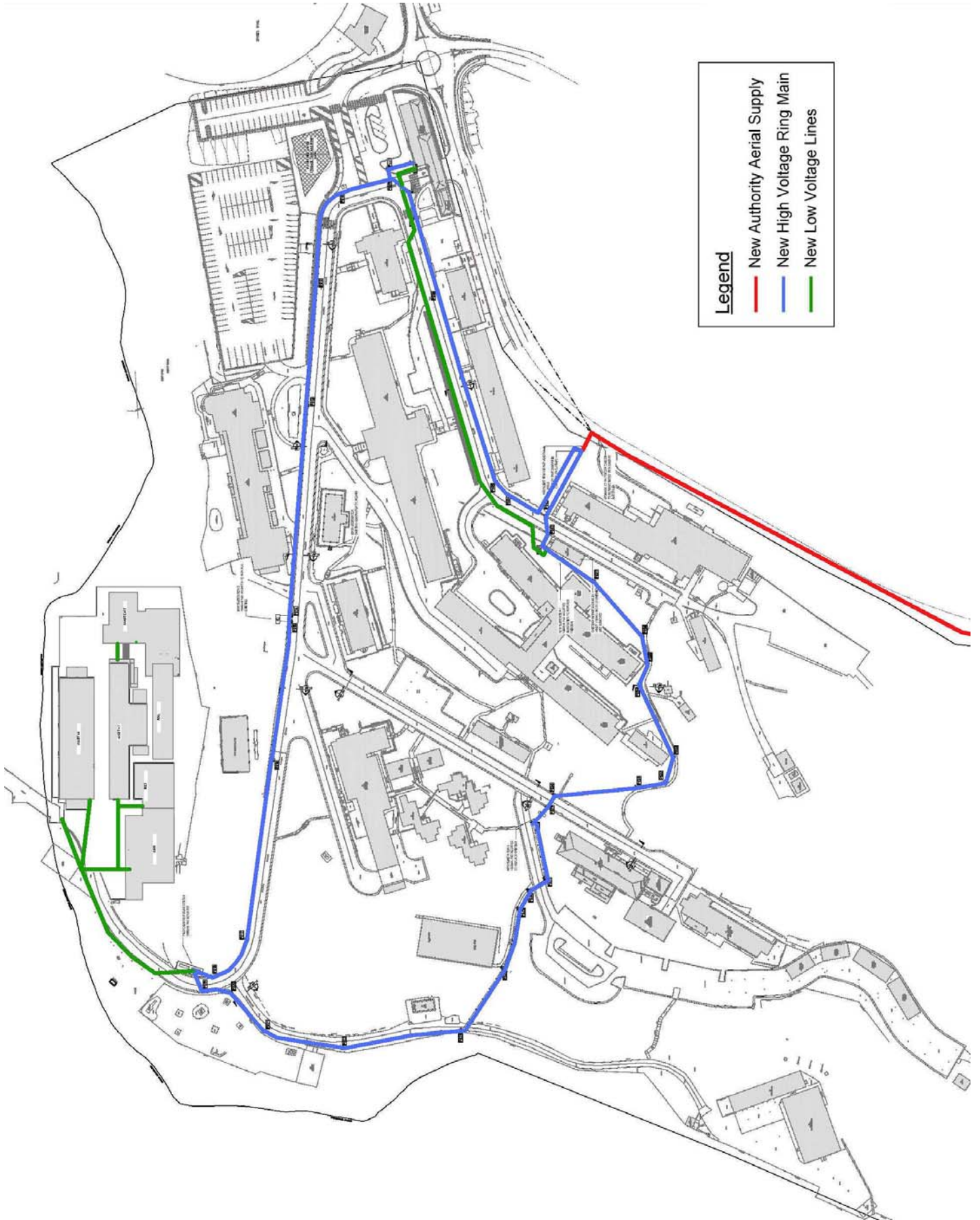


HMAS PENGUIN SITE ENTRY PLAN

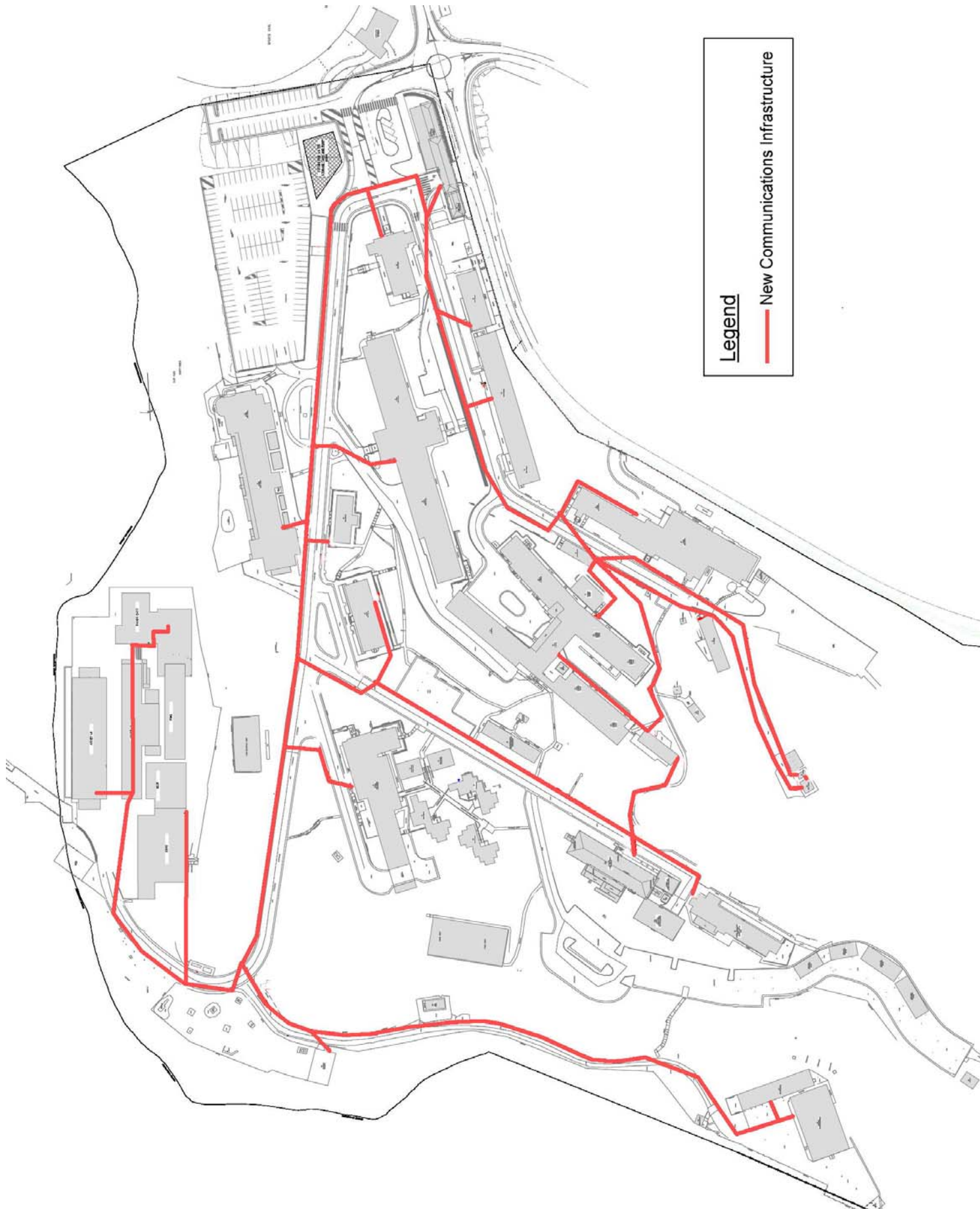
Attachment 15: HMAS Penguin Entry Precinct – Photo Montage



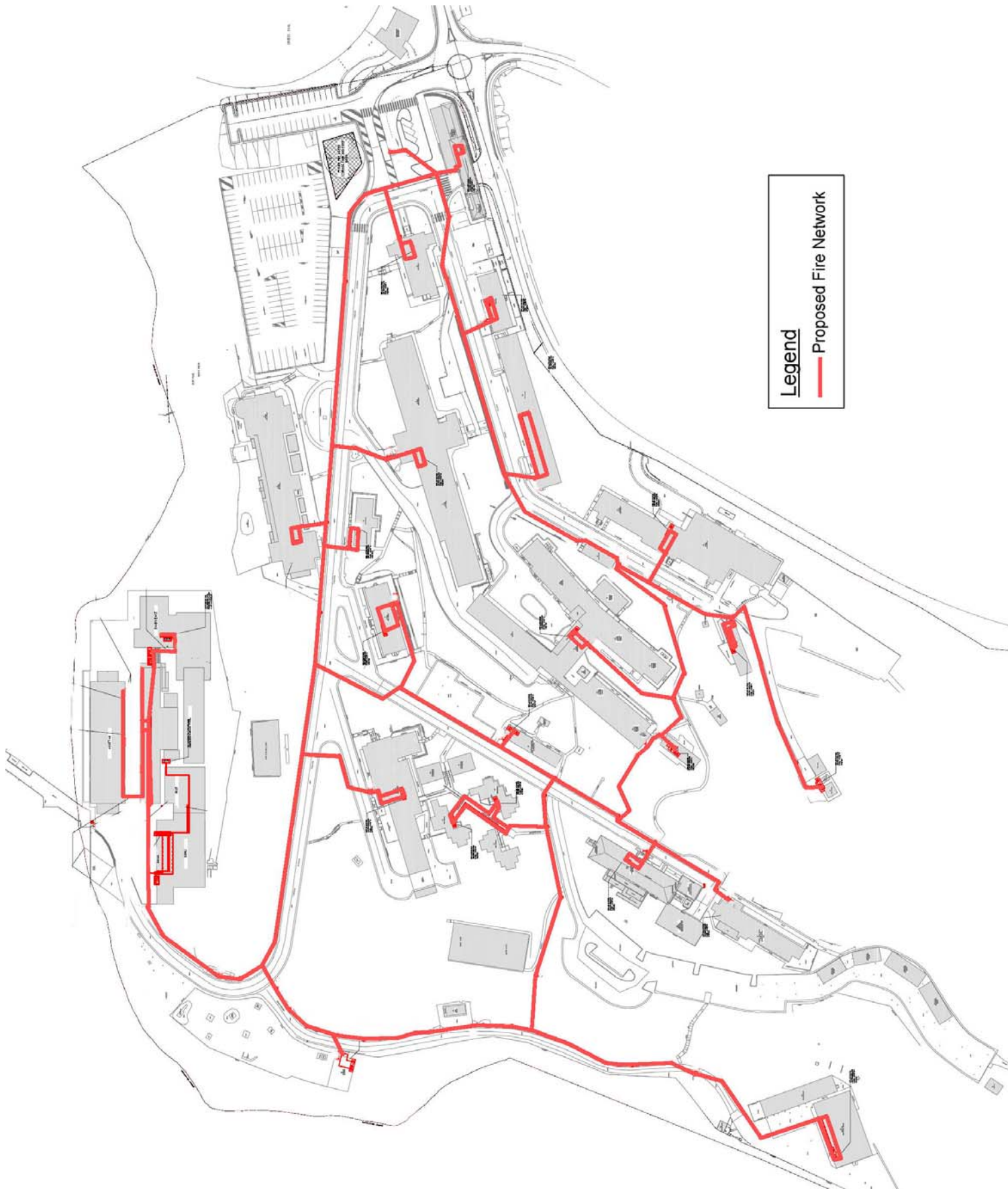
Attachment 16: HMAS Penguin Electrical Infrastructure Masterplan



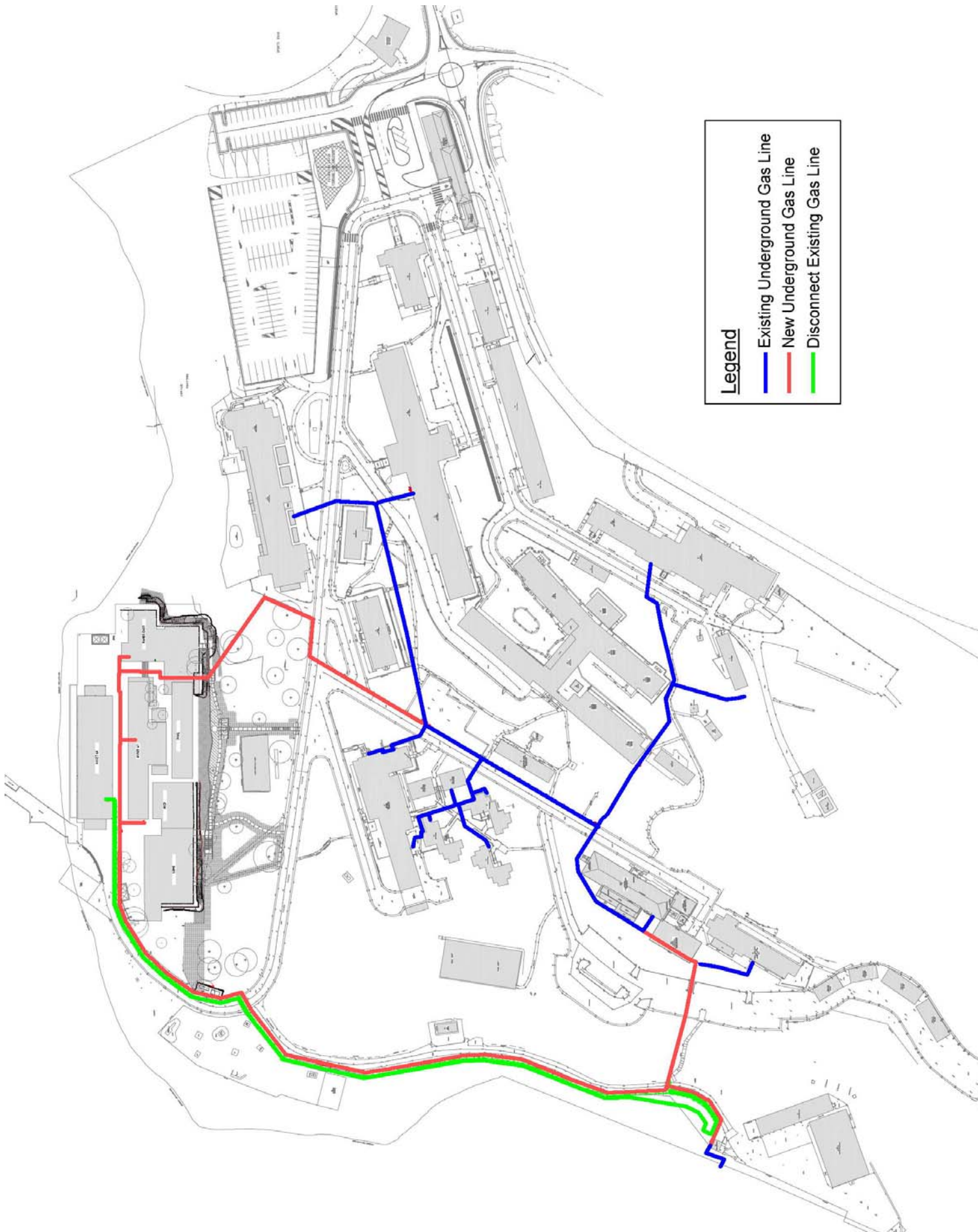
Attachment 17 HMAS Penguin Communications Infrastructure Masterplan



Attachment 18 – HMAS Penguin Fire Services Infrastructure Masterplan



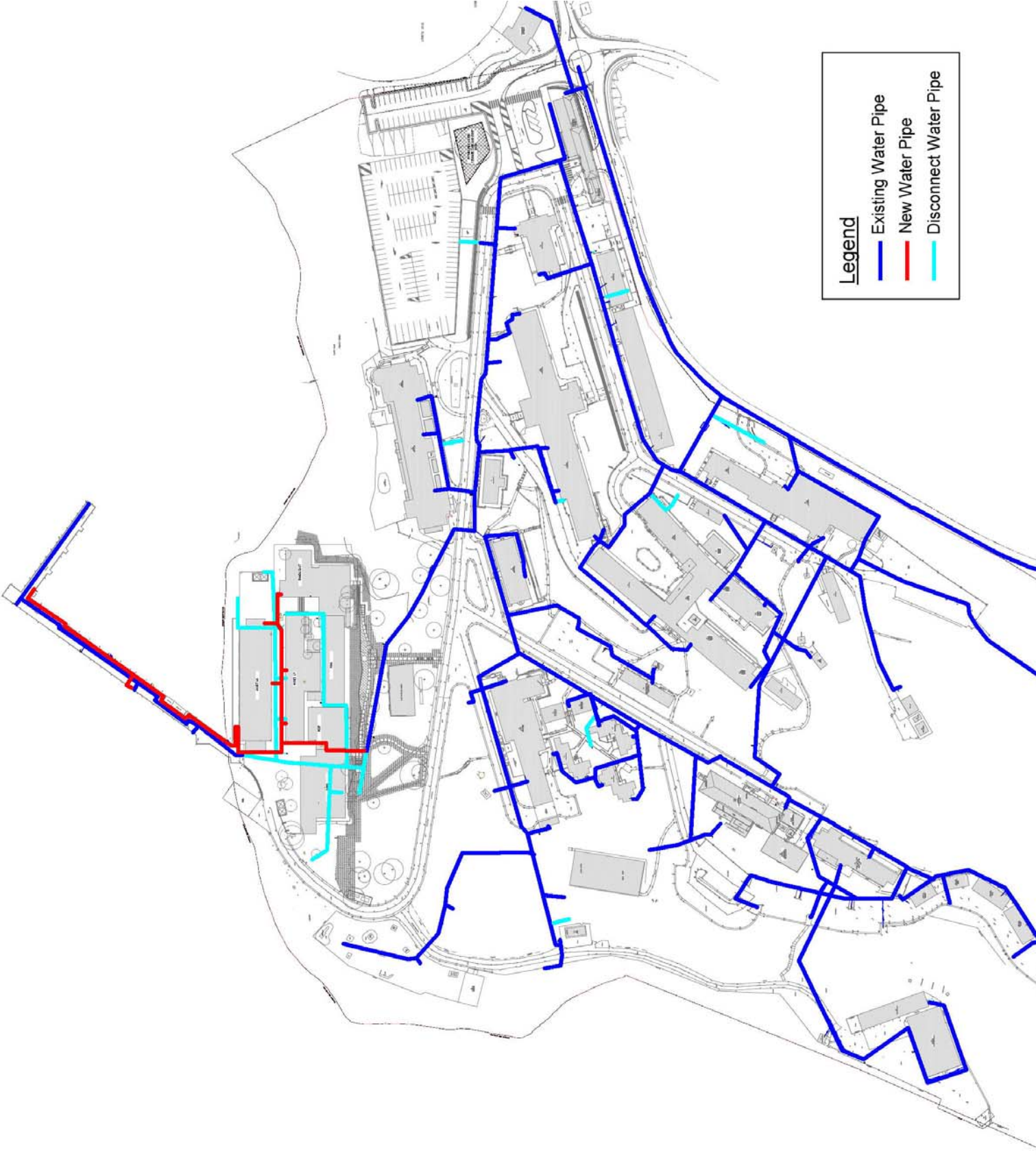
Attachment 19 – HMAS Penguin Natural Gas Infrastructure Masterplan



Legend

- Existing Underground Gas Line
- New Underground Gas Line
- Disconnect Existing Gas Line

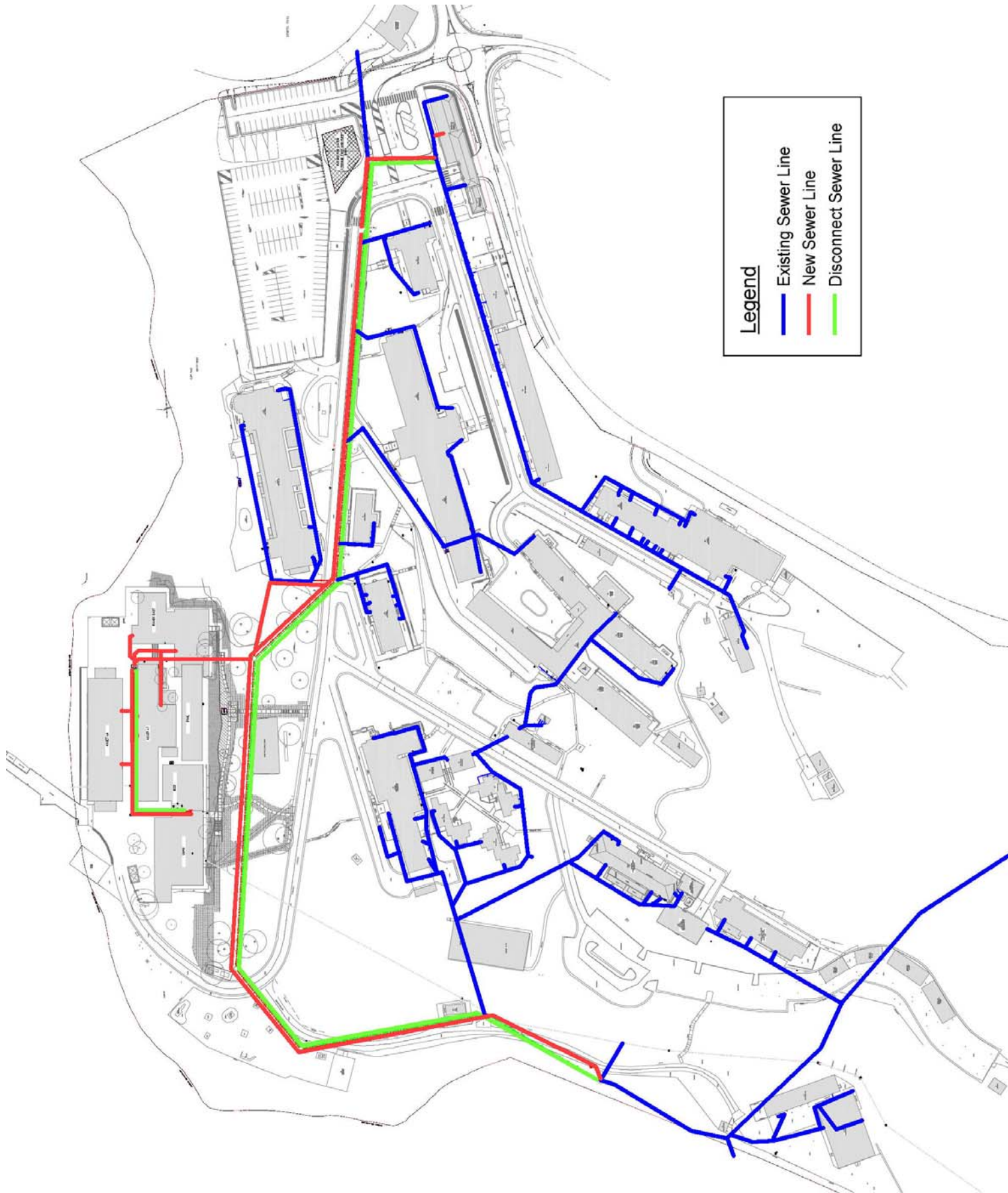
Attachment 20 – HMAS Water Infrastructure Masterplan



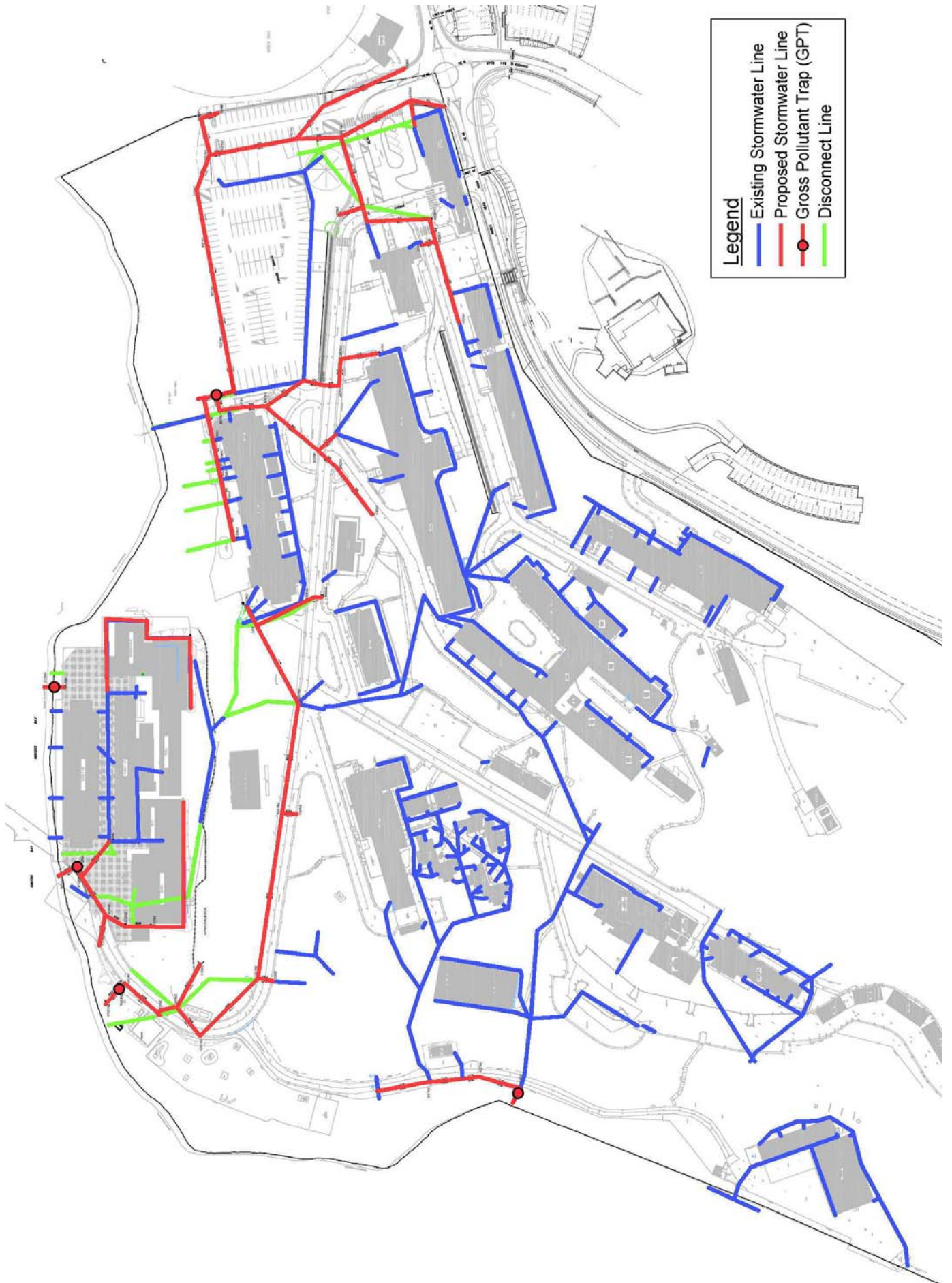
Legend

- Existing Water Pipe
- New Water Pipe
- Disconnect Water Pipe

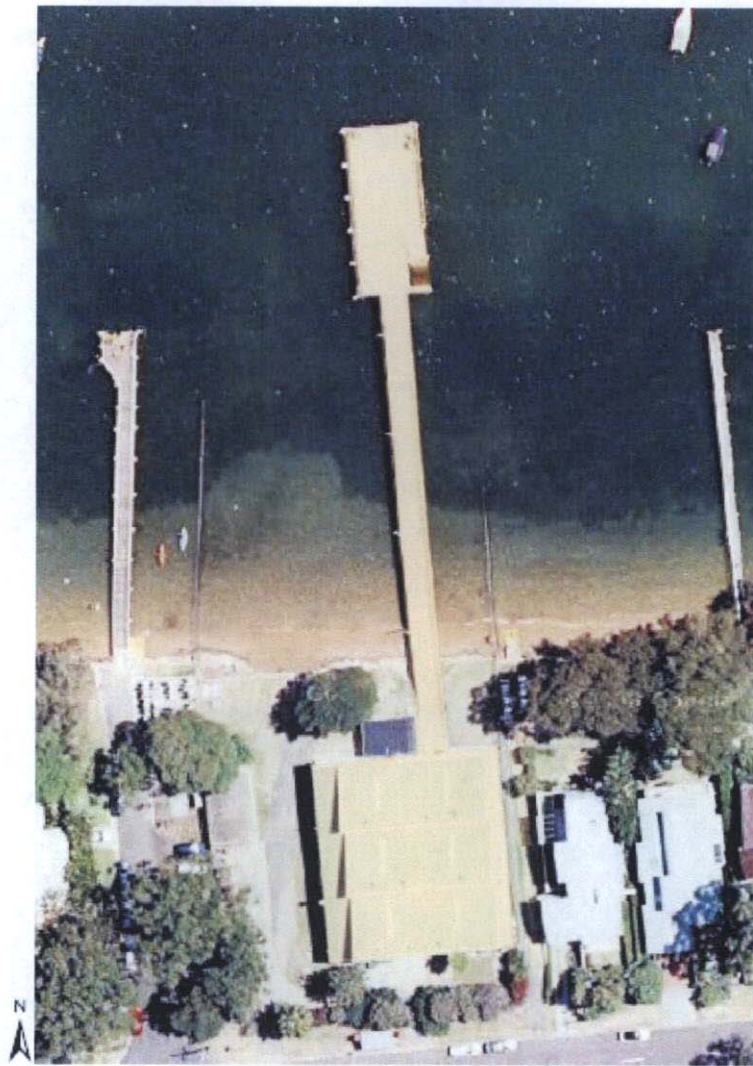
Attachment 21 HMAS Penguin Sewerage Infrastructure Masterplan



Attachment 22: HMAS Penguin Stormwater Infrastructure Masterplan



Attachment 23: Pittwater Annexe Site Plan

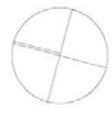


North West View

Attachment 24: Pittwater Annexe Floor Plans



ROYAL AUSTRALIAN NAVY DIVING SCHOOL
FIRST FLOOR PLAN



ROYAL AUSTRALIAN NAVY DIVING SCHOOL
GROUND FLOOR PLAN

PITTWATER ANNEXE
CLAREVILLE

