



Australian Government
Department of Defence

C-17 HEAVY AIR LIFT INFRASTRUCTURE

RAAF BASE AMBERLEY, QUEENSLAND
RAAF BASE DARWIN, NORTHERN TERRITORY
RAAF BASE EDINBURGH, SOUTH AUSTRALIA
RAAF BASE PEARCE, WESTERN AUSTRALIA
RAAF BASE TOWNSVILLE, QUEENSLAND

STATEMENT OF EVIDENCE
TO THE
PARLIAMENTARY STANDING COMMITTEE
ON PUBLIC WORKS

DEPARTMENT OF DEFENCE
CANBERRA, ACT
MAY 2007

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PART A - IDENTIFICATION OF THE NEED

INTRODUCTION

1. The C-17 Heavy Air Lift capability will allow the Australian Defence Force to rapidly deploy troops, combat vehicles, heavy equipment and helicopters within continental Australia, the region and globally. The fleet of four C-17 aircraft will give Australia a new responsive global air-lift capability which will significantly enhance the Australian Defence Force's ability to support national and international operations, and major disaster rescue and relief efforts.

PROJECT OBJECTIVES

2. The objective of this proposal is to provide the necessary facilities and infrastructure to support the introduction of the heavy airlift aircraft - C-17. This will be at the home base, RAAF Base Amberley (QLD), and supporting deployment bases at RAAF Base Darwin (NT), RAAF Base Edinburgh (SA), RAAF Base Pearce (WA) and RAAF Base Townsville (QLD).

BACKGROUND

3. In March 2006, the Minister for Defence announced the Australian Defence Force's acquisition of four Boeing C-17 Globemaster III aircraft and associated equipment. This aircraft will provide a responsive, global, heavy air lift capability for the Australian Defence Force. The C-17 aircraft has four times the carrying capacity of the RAAF C-130 Hercules. The first C-17 aircraft arrived in December 2006 and the three remaining aircraft are due to arrive in May 2007, February and March 2008 respectively.

4. No. 36 Squadron will operate the C-17 aircraft from the home base at RAAF Base Amberley. The Squadron relocated to RAAF Base Amberley in November 2006 to support the arrival of the first aircraft in December 2006. No. 36 Squadron is currently accommodated in interim facilities at RAAF Base Amberley.

5. RAAF Base Amberley was selected as the home base for this aircraft. RAAF Base Amberley was first established in 1940 and has been in continuous service as a major Australian Air Base since this time. The base has traditionally been home to the F-111 strike capability; however, recent ADF decisions has the base becoming a focus for Air Lift activities. It is the home base for the KC-30B Multi-Role Tanker Transport and also for the C-17 aircraft. The facilities to support the introduction of the KC-30B and the relocation of No. 33 Squadron from RAAF Base Richmond to RAAF Base Amberley are currently under construction at the north-western edge of the existing flight line development. This project proposes the creation of a consolidated 'Air Lift' precinct at

RAAF Base Amberley, building upon the No. 33 Squadron hangar and apron due for completion in December 2007.

6. The concept of operation of the C-17 requires that they can operate to service their major customer Army, from the key deployment bases of RAAF Base Edinburgh, RAAF Base Darwin, RAAF Base Pearce and RAAF Base Townsville where there are large concentrations of Army personnel and equipment.

NEED FOR THE WORK

7. The facilities and infrastructure works are required to support the introduction of the C-17 aircraft, and to significantly enhance Australian Defence Forces heavy airlift capability. The increased aircraft weight, dimensions, fuel and cargo capacity requires an investment in airfield infrastructure and cargo preparation and handling facilities.

8. No. 36 Squadron relocated to RAAF Base Amberley in December 2006 and is currently accommodated in temporary facilities which are not suitable for permanent working accommodation. The squadron requires permanent headquarters, maintenance and logistics working accommodation and a warehouse for spare parts to effectively support the operation of the aircraft.

9. The existing cargo facilities at the home base and supporting deployment bases were designed primarily to support the RAAF's C-130 and has insufficient capacity to handle the increased loads to be carried by the C-17, which has four times the C-130 cargo capacity. These existing facilities also lack the specialist packing and loading equipment necessary to support the aircraft. Expanded cargo facilities, associated office accommodation and hardstand for both aircraft parking and vehicle preparation and storage are required.

10. To supply the necessary fuel quantity and pressure required for effective operation of the C-17 aircraft, installation of apron hydrant refuelling is required at RAAF Bases Amberley, Darwin, Townsville and Edinburgh.

DESCRIPTION OF THE PROPOSAL

RAAF Base Amberley

11. The home basing of the C-17 aircraft and the associated relocation of No. 36 Squadron to RAAF Base Amberley requires new permanent on-base facilities and airfield works. The proposed building works include the construction of a combined Headquarters, Maintenance and Logistics building for No. 36 Squadron, new Air Movements Terminal and Cargo hangar, a C-17 Simulator

for flight crew, load master and maintenance crew training, a new warehouse for C-17 spare-parts and shelters for the C-17 and Air Movements Ground Support Equipment. The project proposes to provide new and refurbished workshop space for C-17 specialist support equipment and aircraft maintenance. The airfield pavement work will include the construction of a new combined C-17 and Air Movements aircraft parking apron with hydrant refuelling; widening and strengthening of taxiways; and a new apron for loading explosive ordnance cargo.

Deployment Bases (Darwin, Edinburgh, Pearce & Townsville)

12. Each of the deployment bases requires upgraded facilities and infrastructure to provide sufficient operating surfaces (runway thresholds, taxiway and aprons) and air movements and cargo facilities to support the long term operations of the C-17 aircrafts at these airfields.

OPTIONS CONSIDERED

13. At each base, Defence considered and compared the re-use or expansion potential of any existing facilities, with the construction of a new facility. The existing Air Movement terminals at RAAF Base Amberley and RAAF Base Edinburgh are each over 30 years old and have no residual economic value. Although the buildings are both in generally good condition, they have limited capacity for expansion. In the case of Amberley and Edinburgh, the only viable and cost effective option is to construct new facilities. The existing Air Movements terminals at RAAF Bases Darwin and Townsville are each less than 10 years old, are in good condition and can be cost-effectively expanded to meet the C-17 requirement.

14. The siting of the facilities at RAAF Base Amberley considered a number of options, primarily involving either the reconstruction of Air Movements separate to the No. 36 Squadron facilities, or the development of an Air Lift precinct meeting the requires of Air Movements, No. 36 Squadron and No. 33 Squadron. A new Air Lift precinct based around the new No. 33 Squadron hangar and apron currently under construction is the preferred option as it co-locates similar functions, which rationalises the pavement for aircraft parking, reduces the number of aircraft movements from their squadron apron to air movements and allows space for future expansion for either additional aircraft or any other relocated elements from Air Lift Group.

ECONOMIC IMPACTS

15. This project will generate a significant amount of short-term employment opportunities predominantly in the building, construction and unskilled labour markets. Significant numbers of personnel are expected to be directly employed on construction activities that would also generate some off-site job opportunities from the manufacture and distribution of materials over the anticipated construction period. Defence anticipates that local building sub-contractors would be employed on a large proportion of the construction works.

ENVIRONMENTAL IMPACTS

16. Environmental investigations have identified that only the RAAF Base Pearce works could present a potential environmental impact associated with this project. RAAF Base Pearce contains Threatened Ecological Communities and Declared Rare Flora that are listed under the *Environmental Protection and Biodiversity Conservation Act 1999*. Any proposed developments that may pose a significant impact on Threatened Ecological Communities and Declared Rare Flora listed in the *Environmental Protection and Biodiversity Conservation Act 1999* are subject to Environmental Impact Assessment by both Commonwealth and State environmental approval processes in accordance with the *Environmental Protection and Biodiversity Conservation Act 1999*. An Environmental Impact Assessment has been conducted and a preliminary Environmental Management Plan has been prepared for C-17 facilities at RAAF Base Pearce, where a known flora species exists adjacent to the apron expansion site. The Environmental Impact Assessment has determined that there will be no significant impact on flora and fauna at RAAF Base Pearce. A referral to the Department of the Environment and Heritage under the *Environmental Protection and Biodiversity Conservation Act, 1999* is not required.

17. As no significant environmental impacts have been identified on the other Bases, as a result of this proposal, the project will be managed in accordance with the local Base Environmental Management Plans or Environmental Management Systems. Environmental Clearance Certificates will be sought prior to any construction activities on site. Each Contractor will develop and comply with a project specific Construction Environmental Management Plan. Contractor compliance with this plan will be periodically audited during the construction period.

HERITAGE CONSIDERATIONS

18. No cultural heritage issues have been identified as being associated with any element of this project.

RELATED PROJECTS

19. The RAAF Base Amberley Redevelopment Stage 2 project currently under construction and due for completion by December 2007 will provide the facilities and infrastructure required to support No. 33 Squadron and the new Multi Role Tanker Transport aircraft (KC-30B) at RAAF Base Amberley. The site for this proposal is immediately north of the No. 33 Squadron facilities and apron. This proposal will create an Air Lift precinct at RAAF Base Amberley, based around the new No. 33 Squadron Facilities with sufficient space for any future expansion. C-17 maintenance will be conducted in the new No. 33 Squadron hangar as necessary.

20. The RAAF Base Pearce Redevelopment Stage One project proposes to refurbish and extend the existing Air Movements Terminal at RAAF Base Pearce and remove the demountable accommodation from within the existing cargo hangar. This complements the redevelopment project by increasing the cargo handling facilities and office accommodation to support the increased loads which will be transported by the C-17 aircraft. The C-17 facilities and infrastructure at RAAF Base Pearce has been designed in consultation with the RAAF Base Pearce Redevelopment Stage One project's management team and Managing Contractor. Subject to Parliamentary clearance of both proposals, the works will be delivered concurrently by the RAAF Base Pearce Redevelopment Stage One project's Managing Contractor, to gain efficiencies and economies of scale benefits for the Commonwealth.

21. Subject to Parliamentary clearance, the RAAF Base Amberley Redevelopment Stage Three project and the RAAF Base Darwin Redevelopment Stage Two project will be delivered in similar timeframes to this proposal. These redevelopments will be separately referred to the Committee. While the projects have no direct linkages to the C-17 Infrastructure project, considerable consultation has occurred between the Defence project teams to ensure that works are consistent with long term base planning and do not cause undue disruption to base activities.

STAKEHOLDER CONSULTATION

22. Discussions have been held, or are planned to be held with the following organisations:

- a. Australian Quarantine Inspection Service (AQIS);
- b. Australian Customs Service;
- c. Australian Greenhouse Office;
- d. Ipswich City Council;

- e. Federal Member for Blair,
- f. Federal Member for Herbert,
- g. Federal Member for Pearce,
- h. Federal Member for Solomon and
- i. Federal Member for Wakefield.

PART B - TECHNICAL INFORMATION

PROJECT LOCATION

23. The location of the proposed works is within the existing base boundaries of RAAF Base Amberley (QLD), RAAF Base Darwin (NT), RAAF Base Edinburgh (SA), RAAF Base Pearce (WA) and RAAF Base Townsville (QLD). Location plans for each base are at Attachments 1 (RAAF Amberley), 15 (RAAF Darwin), 20 (RAAF Edinburgh), 26 (RAAF Pearce) and 31 (RAAF Townsville).

PROJECT SCOPE OF WORKS

RAAF Base Amberley

24. The proposed RAAF Base Amberley works comprises five major project elements, including working accommodation for No. 36 Squadron, Air Movements for Passengers and Cargo preparation and handling, Warehousing (C-17 Globemaster III Sustainment Partnership), C-17 Simulator Facilities, and airfield pavements for the C-17 fleet. The proposed works (with the exception of the simulator) are located immediately north of the new No. 33 Squadron facilities and apron and will create an Air Lift precinct at RAAF Base Amberley. The simulator will be sited adjacent to the new Multi-Role Tanker Transport (KC-30B) simulator to create a new Simulator precinct. A site plan of the proposed works is at Attachment 2.

25. The proposed works for the home base, RAAF Amberley includes:

- a. Working Accommodation. Construction of a new combined headquarters building for No. 36 Squadron personnel (including aircrew, administration, operations and maintenance personnel) and office accommodation for the C-17 logistic management unit and the Contract Management Office – C-17 Global Support Program; new and refurbished specialist equipment and aircraft workshop and Squadron storage space; new shelters for the

C-17 and Air Movements Ground Support Equipment

- b. Air Movements and Cargo Preparation. Construction of a new Air Movements Terminal and cargo hangar including office accommodation, passenger lounges, specialist cargo preparation equipment and cargo storage and a new vehicle wash bay compliant with Australian Quarantine Inspection Service (AQIS) standards to wash vehicles returning from overseas deployment;
- c. Warehousing. Construction of a new warehouse for storage and distribution of C-17 aircraft spares and equipment;
- d. C-17 Simulator. Construction of a new C-17 Simulator facility to accommodate a full motion flight simulator, technical training devices, office accommodation for Boeing staff, maintenance areas and training class rooms;
- e. Aircraft Pavements. A new aircraft parking apron capable of supporting four C-17 aircraft is proposed. The apron will provide for taxi-through parking and hydrant refuelling. Widened taxiways are required to allow the C-17 aircraft to transit the airfield without backtracking on the runway. A new apron and supporting taxiway extension to allow loading of explosive ordnance cargo is also proposed.

26. Drawings of the proposed home base works at RAAF Base Amberley are at Attachments 3 - 14.

RAAF Base Darwin

27. The proposed works for RAAF Base Darwin includes:

- a. extension of the existing Air Movements building including additional working accommodation to provide a substantial increase in cargo handling capacity;
- b. expansion and relocation of the Ground Support Equipment shelter;
- c. upgrading the existing Military Hard Stand by replacing the existing pavement with new high strength rigid concrete pavement for C-17 aircraft parking;
- d. installation of hydrant refuelling into the new apron;
- e. a new vehicle wash bay compliant to Australian Quarantine Inspection Service (AQIS) standards to wash vehicles returning from overseas deployment; and
- f. minor widening of the Bomber Replenishment Apron to allow C-17 aircraft to transit the

apron.

28. A site plan of the proposed works is at Attachment 16. Drawings for each of the Darwin elements are at Attachments 17 - 19.

RAAF Base Edinburgh

29. The proposed works for RAAF Base Edinburgh includes:

- a. a new Air Movements Terminal and cargo hangar including office accommodation, passenger lounges, specialist cargo preparation equipment and cargo storage to replace the existing, undersized facilities which were unsuitable for reuse or expansion;
- b. construction of a Ground Support Equipment shelter;
- c. expansion of the existing Air Movement apron to provide an additional C-17 capable parking position, and the installation of hydrant refuelling; and
- d. a new C-17 capable Explosive Ordnance Apron.

30. A site plan of the proposed works is at Attachment 21. Drawings for each of the Edinburgh elements are at Attachments 22 - 25.

RAAF Base Pearce

31. The proposed works for RAAF Base Pearce includes:

- a. expansion of the refurbished Air Movements terminal (being provided as part of the RAAF Base Pearce Redevelopment Stage One project) to provide additional working accommodation and cargo preparation and storage facilities for C-17 operations;
- b. expansion of the existing Ground Support Equipment shelter;
- c. expansion of the existing Air Movements Apron to allow two C-17 aircraft to operate at Air Movements;
- d. a new vehicle wash bay compliant with Australian Quarantine Inspection Service (AQIS) standards to wash vehicles returning from overseas deployment; and
- e. pavement widening and strengthening works to allow the C-17 to transit from the runway to the existing Explosive Ordnance Apron and Air Movements Apron.

32. A site plan of the proposed works is at Attachment 26. Drawings for each of the Pearce elements are at Attachments 27 - 30.

RAAF Base Townsville

33. The proposed works for RAAF Base Townsville include:

- a. expansion of the existing Air Movements terminal to provide additional cargo handling and preparation facilities to support the increased C-17 loads;
- b. upgrade of the existing wash bay compliant with Australian Quarantine Inspection Service (AQIS) standards to wash vehicles returning from overseas deployment;
- c. relocation and expansion of the existing Ground Support Equipment shelter;
- d. installation of hydrant refuelling to the Military Apron to support C-17 refuelling; and
- e. airfield pavement works including taxiway widening to allow the C-17 to transit to the existing Explosive Ordnance Apron.

34. A site plan of the proposed works is at Attachment 32. Drawings for each of the Townsville elements are at Attachments 33 - 34.

SITE SELECTION AND DESCRIPTION

35. All elements of this project are sited within the existing boundaries of RAAF Bases Amberley, Darwin, Edinburgh, Pearce and Townsville. This property is Commonwealth owned and Defence controlled. Site selection for this proposal has been undertaken in accordance with Defence policy and takes into consideration the applicable current base Master Plan or Zone and Precinct plan.

ZONING AND APPROVALS

36. All works referred to in this evidence are, or would be constructed, within the designated boundaries of each Base, which is designated "Defence Special Purposes". No civilian authority design or construction approvals are required, although works will comply with relevant Standards and Regulations as applicable.

LAND ACQUISITION

37. This proposal does not require the acquisition of additional land.

APPLICABLE CODES AND STANDARDS

38. Where appropriate, design and construction of the proposed works and services will conform to the relevant sections of applicable Building Codes and Standards including the following:
- a. Building Code of Australia;
 - b. relevant Australian Standards and Codes;
 - c. Commonwealth and State legislation;
 - d. Defence Manual of Fire Protection Engineering;
 - e. Defence Facilities Communications Cabling Standard;
 - f. relevant Defence Security Publications; and
 - g. occupational health, safety and welfare legislation and the Defence Occupational Health and Safety Manual.
39. A qualified and practising certifier will be required to certify that the design and finished construction of the proposed facilities meet the requirements of the Building Code of Australia, relevant Codes and Standards, the Defence Manual of Fire Protection Engineering and any additional State, Local Government and Defence requirements.
40. Successful tenderers will be required to produce a Project Quality Plan. This plan will clearly show how building codes, Australian standards and any additional Defence requirements in relation to security, fire protection and fire safety will be met and how the required standards for construction and installation are to be maintained.

PLANNING AND DESIGN

41. The designs provide a safe, efficient and pleasant workplace and also represent value for money. The designs offer good economy in relation to floor area, construction techniques, buildability and finishes, whilst achieving the necessary functional requirements, work flow patterns and work environment required to fulfil the function of the space.
42. Designers have been required to consider, during the preliminary design stage, the implications and estimates of costs for designs, materials, construction techniques, finishes, equipment and energy systems which will deliver economy on a life cycle costing basis.

43. In the selection of services and associated equipment, the capital cost is balanced against operational and maintenance costs. Operating costs comparisons will be included in a life cycle costing analysis during detailed design and prior to selection. Particular consideration has been given to energy efficient design solutions employing passive solar energy and water re-use initiatives.

44. The design, structure, servicing, and siting of buildings has been determined to ensure that future expansion is possible. Each sub-element of the facility will have the capacity for future expansion. This is of particular importance in sizing and terminating in-ground services. New mechanical plants will be modular to ensure flexibility.

45. Maximum flexibility is required for most internal office accommodation facilities. Except where the need for security or noise reduction dictates otherwise, minimum use is to be made of structural internal walls or columns. In general terms, internal walls in office areas will be of demountable partition or workstation type to facilitate economic rearrangement. Building services will be compatible with this requirement.

46. This project will:

- a. maximise the use of existing infrastructure to minimise capital facilities costs;
- b. adopt conventional construction techniques and materials, commonly used by the construction industry in regional Australia, with due regard given to climatic conditions;
and
- c. utilise readily available and durable materials that combine long life with minimum maintenance and are sympathetic with the existing buildings, landscaping and precinct.

47. The building works and services will be fully fitted out, with all communications and office equipment, light fittings, partitions, floor treatments and furniture. Facilities will incorporate building management systems, metering and other provisions to measure and monitor energy use and to allow regular energy audits.

STRUCTURE

48. Proposed new facilities will generally be steel framed or concrete framed structures with concrete floor slabs and a metal roof. Internal walls are generally non-load bearing frames lined with plasterboard to provide for maximum flexibility in future floor layout. External Walls will respond to the environmental requirements of the site. In particular, structural design will take into

account the highly reactive soils encountered in the Amberley area and the cyclonic wind conditions in Darwin and Townsville.

MATERIALS AND FINISHES

49. Materials and finishes will be selected from those readily available locally for their functionality, durability, and low maintenance and for their ecologically sustainable design properties.

MECHANICAL SERVICES

50. The mechanical services works involve a number of systems. Air-conditioning will be provided to areas where climate and usage dictates a need. The selection of building services and associated equipment to new air-conditioned facilities will be required to achieve an economic balance between capital cost and operation and maintenance costs. Selection would be based on a life cycle costing analysis and particular consideration would be given to energy efficient design solutions employing passive solar energy. New facilities will incorporate building management systems, metering and other provisions to measure and monitor energy use and to allow regular energy audits where practicable. Mechanical plant will incorporate a modular system to ensure flexibility. Mechanical services to existing workshops at RAAF Base Amberley will be upgraded to meet current occupational health and safety requirements.

HYDRAULIC SERVICES

51. Hydraulic services for water supply, sewerage, and storm water within each precinct involve extension of infrastructure and building services to suit.

ELECTRICAL SERVICES

52. Lighting, power, lightning protection and fire detection will be provided in accordance with the relevant Australian Standards and any additional Defence requirements. Electrical infrastructure and switchboards will have modest spare capacity to allow for any future growth or demand. Fire detection systems, indication panels, emergency and exit lighting will be provided to suit the existing site systems.

CIVIL WORKS

53. None of the proposed sites for the new facilities present any particular civil engineering problems, but each will be the subject of further survey and geotechnical investigation during the design phase.

ACOUSTICS

54. Airbases are particularly noisy environments, especially near the aircraft flight line. In these areas, building sound attenuation will be provided through construction techniques and materials and will generally be supplemented by personal aural protection when personnel are outside. Sound attenuation is particularly important in classrooms and working accommodation and specific levels, as specified within Australian Standards, will be met.

55. The steady noise level in an occupied room generated by all components of the air conditioning and ventilation plant shall not exceed the maximum levels recommended by Australian Standard 2107. Short term noise intrusion into occupied spaces from occasional but regular sources shall not exceed a noise level 5 dB below the maximum level recommended in Australian Standard 2107 for the particular area. Vibration isolation of mechanical plant and equipment will limit vibration levels in the building to comply with the recommended vibration levels as set out in Australian Standard 2670.2 and Australian Standard 2763 and any additional Defence requirements.

56. The external building fabric will restrict noise transmission ingress as per the relevant Australian Standards with respect to aircraft noise, road traffic noise and externally located building services plant.

WATER AND ENERGY CONSERVATION MEASURES

57. The Commonwealth is committed to Ecologically Sustainable Development (ESD) and the reduction of greenhouse gas emissions. Defence reports annually to Parliament on its energy management performance and on its progress in meeting the energy efficiency targets established by the government as part of its commitment to improve ESD. This project has addressed this policy by adopting cost effective ESD, as a key objective in the design development and delivery of new facilities.

58. All buildings included in this project will be designed, constructed, operated and maintained to ensure that they use energy efficiently. To achieve this, as a minimum, the buildings will comply with:

- a. Part I2 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 Part 1;

as applicable to the classification of each building.

59. All buildings will comply with the relevant energy efficiency provisions in the Building Code of Australia, except where there are energy efficiency requirements imposed by Defence that are of a higher standard. In this project, each building is subject to the higher standards of the Defence Green Building Requirements Part 1 which requires a 20% improvement on the Building Code of Australia minimum energy efficiency performance requirements. In addition, the new Working Accommodation building for No 36 Squadron will comply with the minimum energy performance standards in the EEGO policy.

60. For those office buildings that have a floor area of greater than 2000 m², and that comprise 100% of the total building area, which includes the new Working Accommodation building for No 36 Squadron, the building will target 4.5 stars ABGR and separate digital on market status metering will be installed. An energy management plan will be developed for implementation by Defence. 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.

61. For all other mixed-use buildings that have office floor area of less than 2000m², separate digital on market status metering will be installed and office lighting will not exceed 10 W/m². 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.

62. Each new building will be modelled to determine the predicted energy consumption and design targets will be determined for each building, depending on the building classification. Energy management is a key aspect in the design of the new facilities and the initiatives which will be included are:

- a. orientating the buildings to minimise east and west solar gain;
- b. installing a Building Management System in each building, linked to the site wide Regional Utilities Management System where available;
- c. in-building load control devices such as motion sensors where practical;
- d. natural ventilation and mixed mode systems wherever possible;
- e. installation of ceiling fans in selected areas to enhance comfort without the use of air conditioning;
- f. separate digital energy metering for tenanted areas, central services and computer (data) centres;
- g. energy efficient lighting (T5 fluorescent light fittings in office areas) supplemented by

energy efficiency techniques such as occupancy sensing and after-hours automatic shut-off controls; and

h. energy efficient appliances.

63. Efficient water use is a key aspect of the design. Key water saving measures will include:

- a. all tapware and fittings compliant with the Water Efficiency Labelling Standards (WELS) scheme to provide a minimum of a 3 Star water conservation rating;
- b. pressure limiting valves to limit pressure at all appliances;
- c. provision for separate internal and external reticulation of cold water to all toilets and urinal flushing for future connection to non-potable water supply infrastructure;
- d. sub-metering of all major water supplies to each new building; and
- e. rainwater harvesting from all roof areas complete with storage tanks and pressure pumping to supply localised landscaping, wash down areas and toilet flushing.

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

MASTER PLANNING AND FUTURE DEVELOPMENT

65. This proposal is consistent with the relevant Base Zone and Precinct Plan, or Base Master Plan depending on the site. Master Planning at RAAF Base Amberley is consistent with the planning for the proposed RAAF Base Amberley Redevelopment Stage Three project. The works at RAAF Base Amberley will create new Air Lift and Simulator precincts. Each of the sites will allow for future expansion.

PROVISIONS FOR PEOPLE WITH DISABILITIES

66. Access and facilities for the disabled will be provided in accordance with the Defence Infrastructure Manual Disabled Access and Other Facilities for Disabled Persons, the Building Code of Australia and relevant Australia Standards.

HERITAGE ISSUES

67. No heritage issues have been identified for this proposal and none of the works impacts on any facilities or precincts which are identified as having a heritage significance. Archival recording of the existing Air Movements Terminal at RAAF Base Edinburgh will be completed prior to the demolition of the facilities.

CHILDCARE PROVISIONS

68. Childcare to support the relocation of No 36 Squadron to RAAF Base Amberley will be

provided by the ABC Learning Centre located on the base. This childcare centre has adequate capacity to accommodate the minor increase in base personnel.

FIRE PROTECTION

69. All construction and fire protection requirements will, as a minimum, be in accordance with the provisions of the Building Codes of Australia (BCA), the Defence Manual of Fire Protection Engineering and all other applicable Codes and Standards.

SECURITY

70. In accordance with Government initiatives to improve physical security arrangements across Government Departments, advice from designated security authorities will be incorporated in the design solutions for the proposed facilities as appropriate. The security threat assessment will be reviewed during the detailed design phase and the facilities would be secured as appropriate to the classification level required for activities conducted.

71. Security protection will be provided in accordance with the Defence Security Manual. This requires high levels of base physical security including full wire enclosures / compounds, remote sensor systems and security guards, including dogs. The physical security of aircraft and uninstalled sub-systems (software and hardware) also has facilities implications, including the requirements for secure storage and maintenance areas.

OCCUPATIONAL HEALTH AND SAFETY

72. The proposed facilities will comply with the requirements of the Occupational Health and Safety (CE) Act 1991, the Department of Defence Occupational Health and Safety Manual and relevant State Occupational Health and Safety legislation and operate in accordance with an approved Occupational Health and Safety Plan.

73. 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.

LANDSCAPING

74. Landscaping works would be directed toward the restoration of areas disturbed during construction and general improvement of the built environment. Precautions would be taken to avoid compromising existing environmental sensitivities by adopting landscaping practices in keeping with local environmental conditions.

75. To reduce water consumption, native type vegetation will be planted which are more robust to dryer climatic conditions, with lower water requirements. Irrigation controllers, such as rainwater sensors and moisture detectors may be installed. Irrigation timers will be included to ensure over watering does not occur, and also limiting watering to evening periods of low evaporation rates.

COMMUNITY IMPACT

76. This project will employ skilled construction workers in the Darwin, Townsville, Adelaide, Perth and Brisbane areas over the construction period. This will provide a positive economic impact to small and medium businesses in the regions. Construction traffic routes will be managed to minimise any disruption to the local communities during the construction period. Each of the sites is located well within the base boundaries and construction activities on site will not cause any disruption to residents adjacent to any of the bases.

PROJECT COSTS

77. The estimated out-turn cost of this project is \$268.2 million. This cost estimate includes the construction costs, management and design fees, furniture, fittings and equipment, contingencies and escalation.

78. An increase in net personnel and operating costs is expected as this project includes the construction of new and the extension of existing facilities and infrastructure and will include increases to facilities maintenance, cleaning and utilities expenses.

79. No revenue will be derived from this proposal.

PROJECT DELIVERY SYSTEM

80. The proposed delivery system is a combination of Managing Contractors at RAAF Base Amberley and RAAF Base Pearce and Head Contractors at RAAF Base Darwin, RAAF Base Edinburgh and RAAF Base Townsville. The project delivery system for each base has been selected on the basis of the scope, the risk of disrupting base activities, the value of the works and any interdependencies with other concurrent projects. A single Project Manager has been engaged to represent Defence and to act as Contract Administrator for the whole of the project.

PROJECT SCHEDULE

81. Subject to Parliamentary clearance of this project, construction is expected to commence early 2008 and be complete in 2011.

ATTACHMENTS:

RAAF BASE AMBERLEY

- Attachment 1. Base Location Plan – RAAF Base Amberley
- Attachment 2. Site Plan – RAAF Base Amberley
- Attachment 3. No 36 Squadron Headquarters Ground Floor Plan
- Attachment 4. No 36 Squadron Headquarters First Floor Plan
- Attachment 5. No 36 Squadron Headquarters Elevations
- Attachment 6. RAAF Amberley Air Movements Ground Floor Plan
- Attachment 7. RAAF Amberley Air Movements First Floor Plan
- Attachment 8. RAAF Amberley Air Movements Elevation
- Attachment 9. RAAF Amberley C-17 Warehouse Plan
- Attachment 10. RAAF Amberley C-17 Warehouse Elevations
- Attachment 11. C-17 Simulator Ground Floor Plan
- Attachment 12. C-17 Simulator First Floor Plan
- Attachment 13. C-17 Simulator Elevations
- Attachment 14. RAAF Amberley C-17 Pavements

RAAF BASE DARWIN

- Attachment 15. Base Location Plan – RAAF Base Darwin
- Attachment 16. Site Plan – RAAF Base Darwin
- Attachment 17. RAAF Darwin Air Movements Facilities Plan
- Attachment 18. RAAF Darwin Air Movements Facilities Elevations
- Attachment 19. RAAF Darwin Military Hard Stand

RAAF BASE EDINBURGH

- Attachment 20. Base Location Plan – RAAF Base Edinburgh
- Attachment 21. Site Plan – RAAF Base Edinburgh
- Attachment 22. RAAF Edinburgh Air Movements Facilities Plan
- Attachment 23. RAAF Edinburgh Air Movements Facilities Elevations
- Attachment 24. RAAF Edinburgh Air Movements Apron
- Attachment 25. RAAF Edinburgh Explosive Ordnance Apron

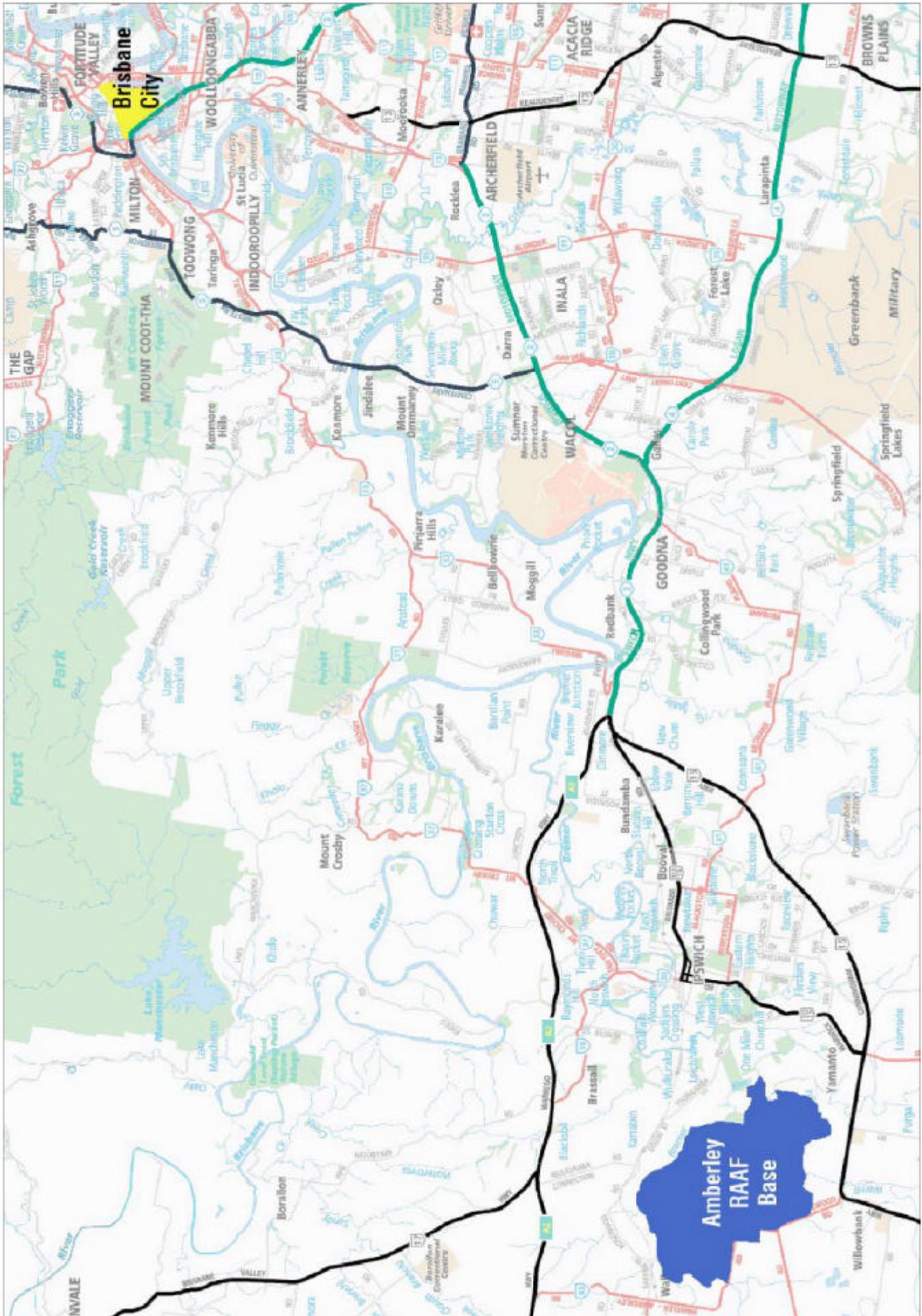
RAAF BASE PEARCE

- Attachment 26. Base Location Plan – RAAF Base Pearce
- Attachment 27. Site Plan – RAAF Base Pearce
- Attachment 28. RAAF Pearce Air Movements Plan
- Attachment 29. RAAF Pearce Air Movements Elevations
- Attachment 30. RAAF Pearce Air Movements Apron

RAAF BASE TOWNSVILLE

- Attachment 31. Base Location Plan – RAAF Base Townsville
- Attachment 32. Site Plan – RAAF Base Townsville
- Attachment 33. RAAF Townsville Air Movements Facilities Plan
- Attachment 34. RAAF Townsville Air Movements Facilities Elevations

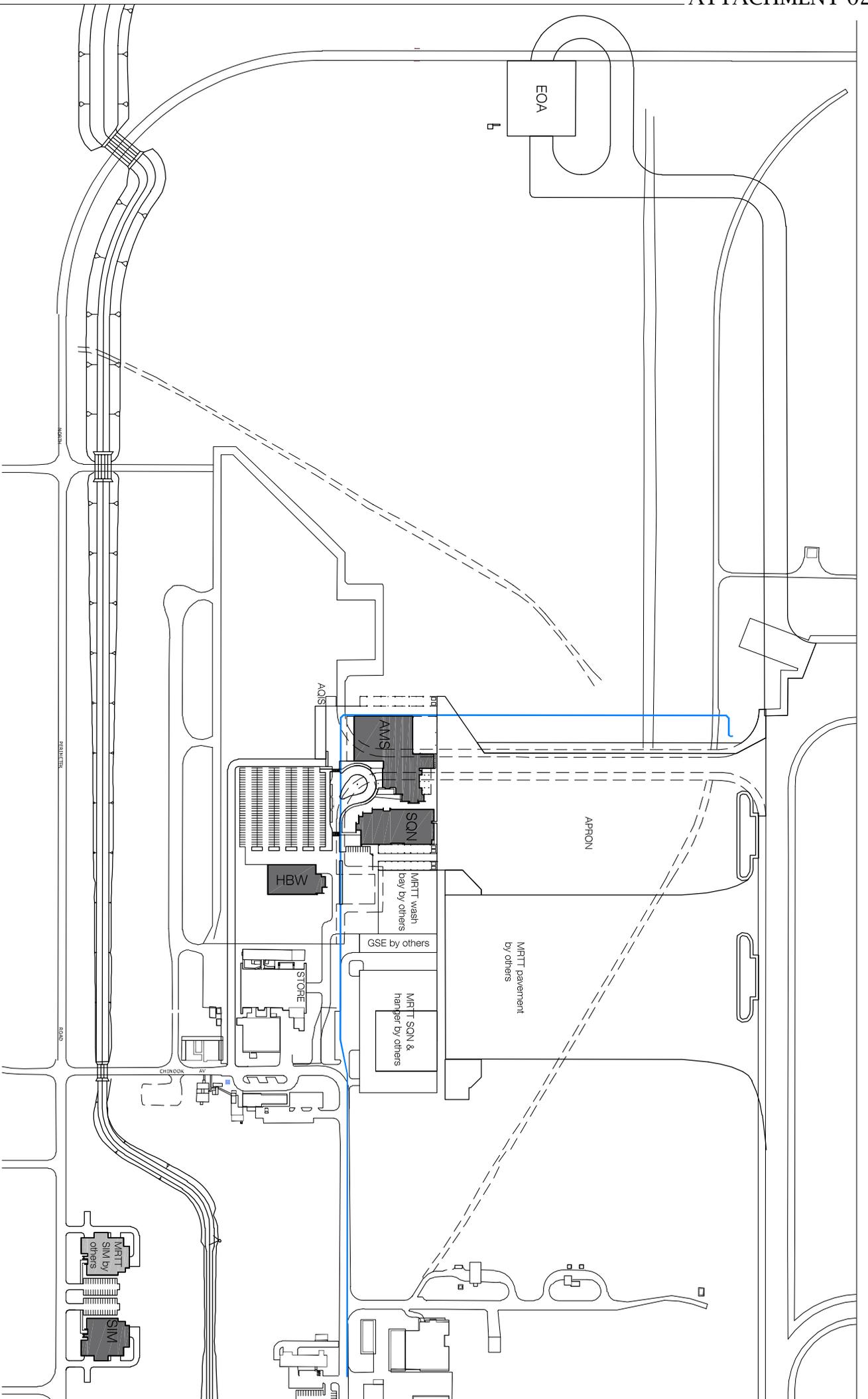
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GLOBAL
LOCATION PLAN



RAAF BASE AMBERLEY
C-17 FACILITIES



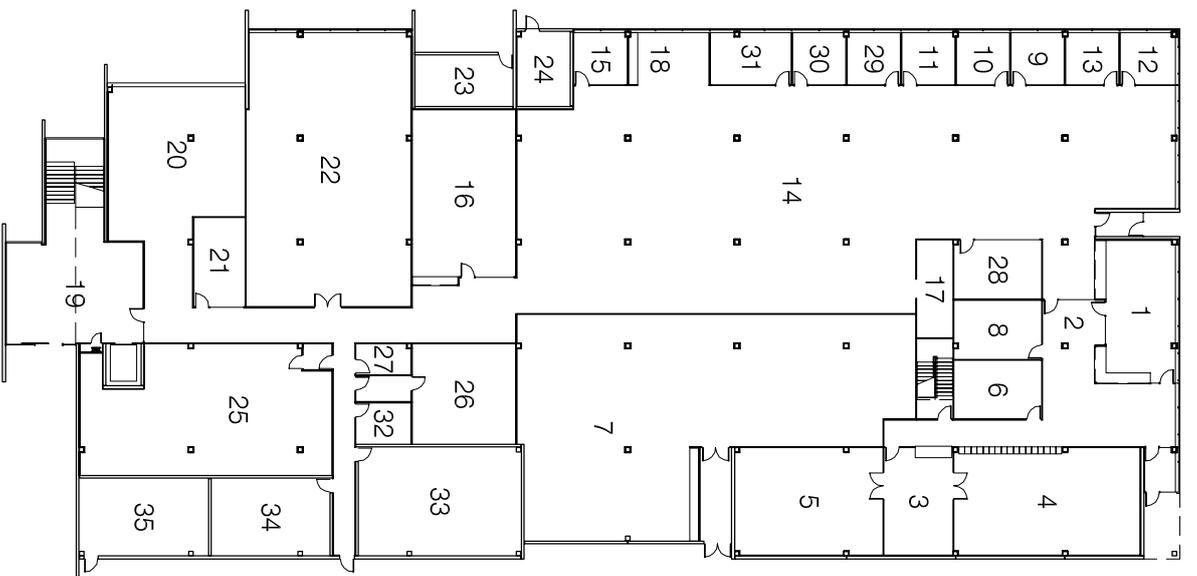
RAAF BASE AMBERLEY

C-17 FACILITIES



GLOBAL

SITE PLAN



- LEGEND:
1. SIGN OFF
 2. TOOL BOARDS
 3. LIFE SUPPORT
 4. TEST EQUIP. DRY
 5. TEST EQUIP. WET
 6. LIFE SUPPORT STORE
 7. TOOL STORE
 8. SECURE STORE
 9. WOFF F/L
 10. WOFF MAINTENANCE
 11. MAINTENANCE CO-ORD
 12. FILMO
 13. FLSMO
 14. GENERAL OFFICE
 15. MCS OIC
 16. MCS
 17. UTILITY
 18. BREW
 19. FOYER
 20. LIBRARY
 21. MEETING
 22. CREW/MEETING
 23. ADF COMMS
 24. BOEING COMMS
 25. MALE AMENITIES
 26. FEMALE AMENITIES
 27. PWD AMENITIES
 28. BRIEFING ROOM
 29. SAFETY
 30. TRAINING
 31. AMO
 32. SICK ROOM
 33. HYDRAULICS
 34. AVIONICS
 35. OXY

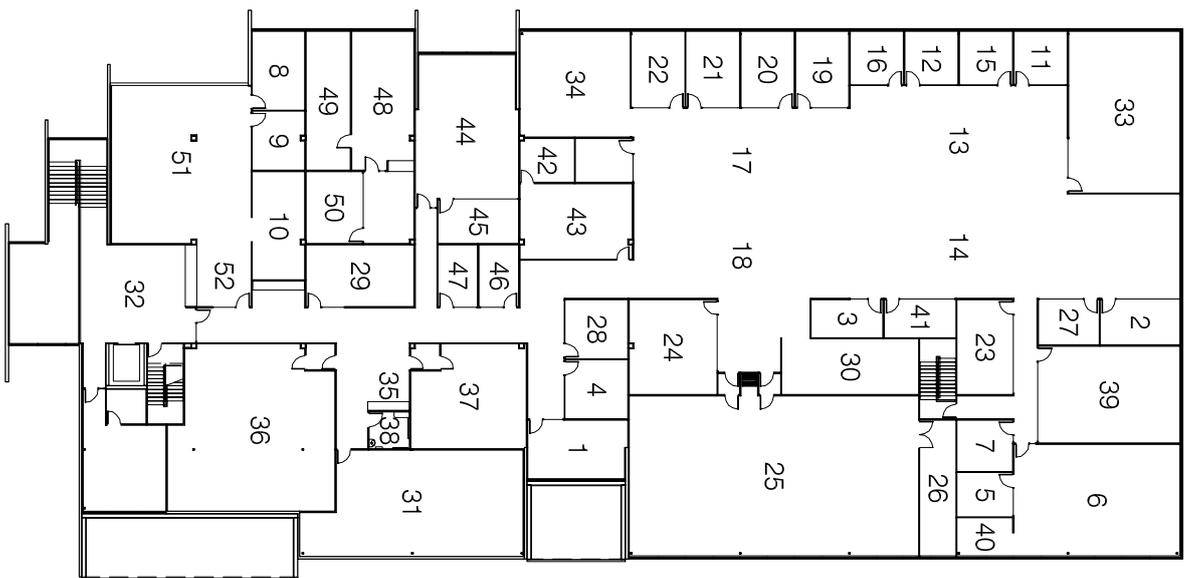
RAAF BASE AMBERLEY

C-17 FACILITIES



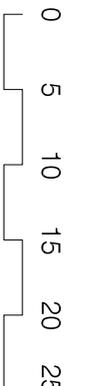
36 SQUADRON HEADQUARTERS

GROUND FLOOR PLAN

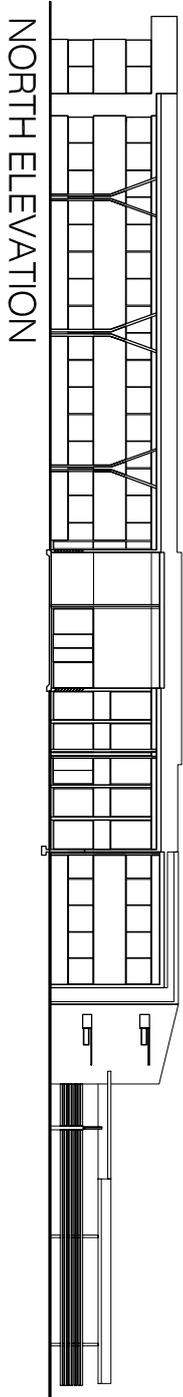
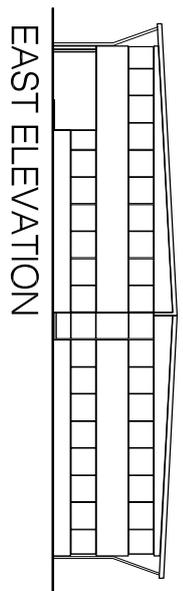
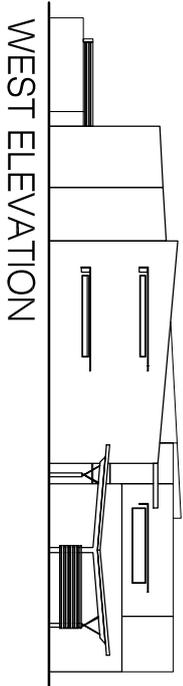
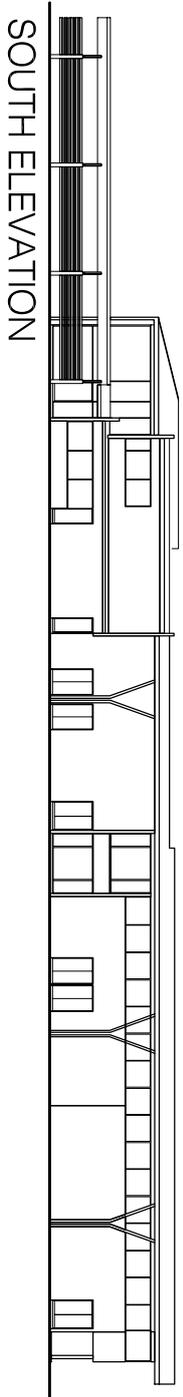


- LEGEND:
- | | |
|--------------------------|---------------------|
| 1. CO OFFICE | 41. SENGO |
| 2. XO OFFICE | 42. OFFICE |
| 3. BOEING | 43. EQUIP. GOV |
| 4. SQN W/O | 44. DMO |
| 5. OFFICE | 45. OFFICE |
| 6. OPERATIONS | 46. VISITORS OFFICE |
| 7. GROUND LIASON OFF. | 47. VISITORS OFFICE |
| 8. OFFICE | 48. DEMANDS |
| 9. OFFICE | 49. SMI STORE |
| 10. UTILITY | 50. EQUIPO |
| 11. SQN LEADER | 51. ADMINISTRATION |
| 12. WOFF LOADM | 52. RECEPTION |
| 13. A FLIGHT | |
| 14. A FLIGHT | |
| 15. SQN LEADER | |
| 16. WOFF LOADM | |
| 17. B FLIGHT | |
| 18. B FLIGHT | |
| 19. PILOT INSTRUCTOR | |
| 20. PILOT INSTRUCTOR | |
| 21. LOADM INSTRUCTOR | |
| 22. LOADM INSTRUCTOR | |
| 23. BRIEFING ROOM | |
| 24. BRIEFING ROOM | |
| 25. LARGE BRIEFING ROOM | |
| 26. CHAIR STORE | |
| 27. QUIET ROOM | |
| 28. QUIET ROOM | |
| 29. MEETING/BRIEFING | |
| 30. UTILITY | |
| 31. ARCHIVE/EQUIP. STORE | |
| 32. FOYER | |
| 33. CREW ROOM | |
| 34. LIBRARY | |
| 35. BREW | |
| 36. MALE AMENITIES | |
| 37. FEMALE AMENITIES | |
| 38. PWD AMENITIES | |
| 39. MISSION PLANNING | |
| 40. UTILITY | |

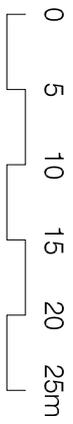
RAAF BASE AMBERLEY
C-17 FACILITIES



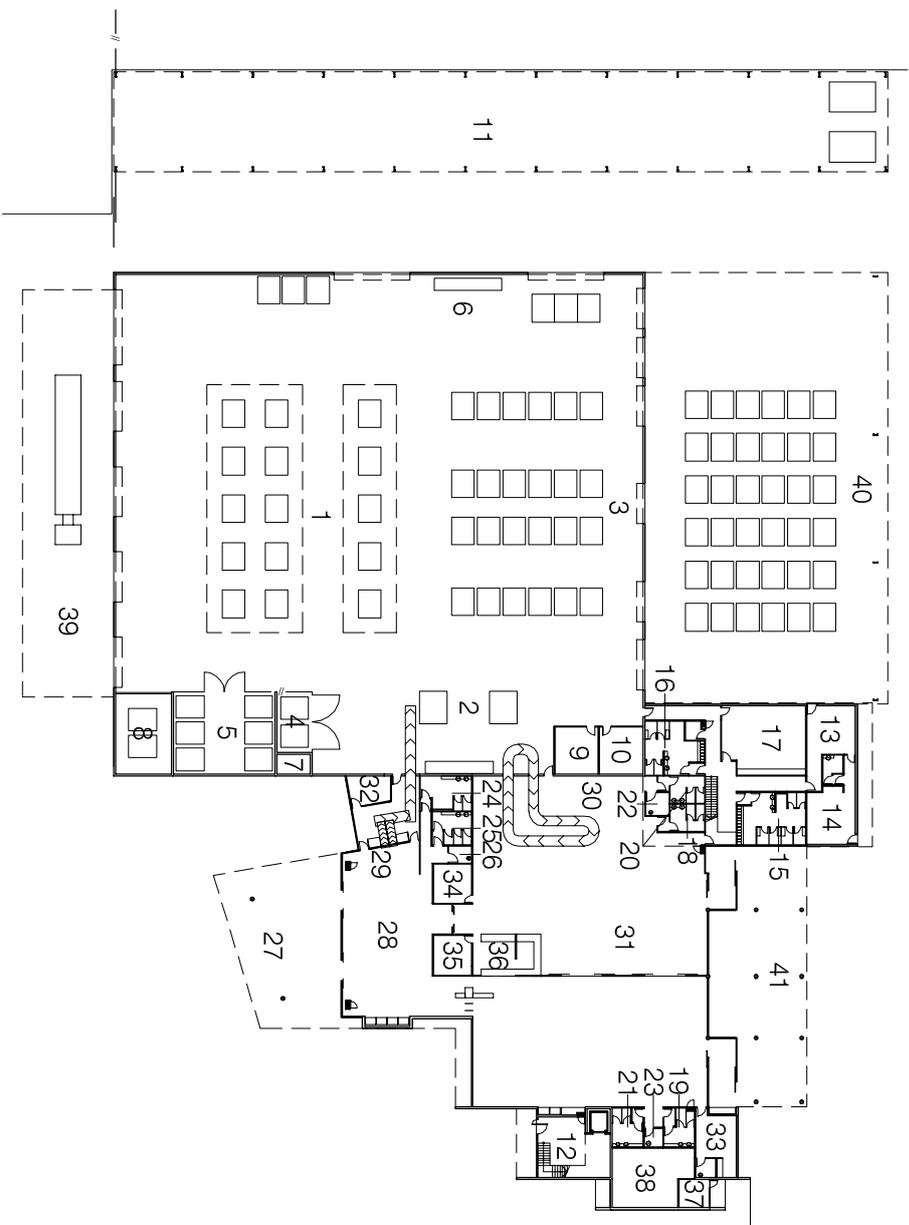
36 SQUADRON HEADQUARTERS
FIRST FLOOR PLAN



RAAF BASE AMBERLEY
C-17 FACILITIES



36 SQUADRON HEADQUARTERS
ELEVATIONS



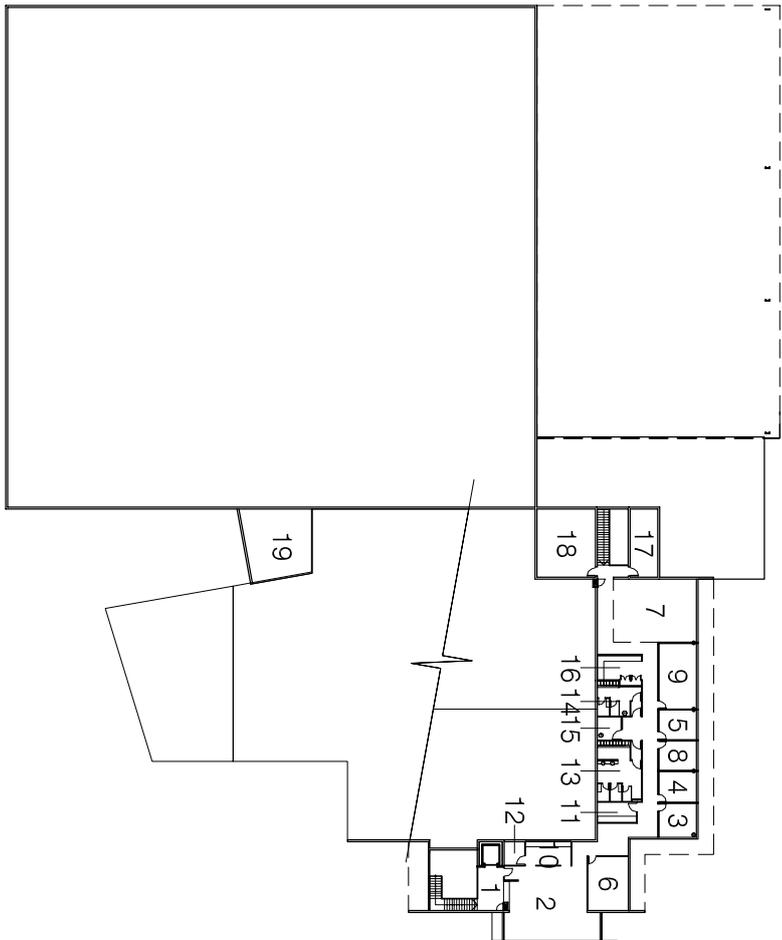
LEGEND:

- 1. BULK STORAGE/RECEIPT
- 2. PIT/ASSEMBLY
- 3. BLOCK STACKING
- 4. V & A STORE
- 5. BOND STORE
- 6. EQUIPMENT RACKING
- 7. SECURE STORE
- 8. BUNDED AREA
- 9. SUPERVISOR'S OFFICE
- 10. MANIFEST
- 11. G.S.E.
- 12. ADMIN. FOYER
- 13. LOAD CONTROL
- 14. FLIGHT PLANNING
- 15. MALE AMENITIES
- 16. FEMALE AMENITIES
- 17. CREW ROOM
- 18. MALE AMENITIES
- 19. MALE AMENITIES
- 20. FEMALE AMENITIES
- 21. FEMALE AMENITIES
- 22. PWD AMENITIES
- 23. PWD AMENITIES
- 24. MALE AMENITIES
- 25. FEMALE AMENITIES
- 26. PWD AMENITIES
- 27. COVERED ENTRY
- 28. FOYER
- 29. CHECK IN
- 30. LUGGAGE COLLECTION
- 31. ARRIVALS LOUNGE
- 32. SECURITY
- 33. VIP LOUNGE
- 34. CUSTOMS OFFICE
- 35. AQIS
- 36. AQIS/CUSTOMS
- 37. COMMS
- 38. PLANT ROOM
- 39. COVERED DELIVERY
- 40. COVERED PALLET STGE.
- 41. COVERED ARRIVALS

RAAF BASE AMBERLEY
C-17 FACILITIES

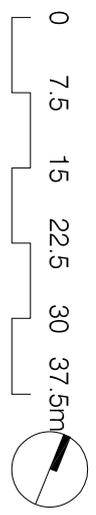


AIR MOVEMENTS SECTION
GROUND FLOOR PLAN

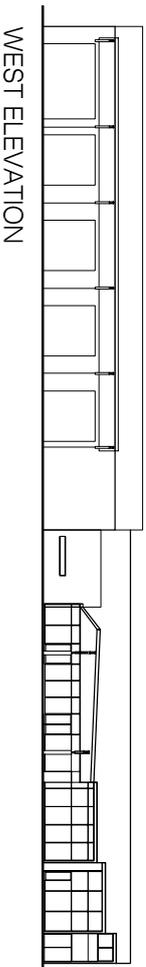


- LEGEND:
1. RECEPTION
 2. GENERAL OFFICE
 3. SNOO OFFICE
 4. 2 I/C OFFICE
 5. WO OFFICE
 6. MEETING/VISITOR OFF.
 7. HOT DESK/DUTY CREW
 8. MOVE OFFICE
 9. TRAINING ROOM
 10. UTILITY
 11. STORE
 12. RADIO ROOM
 13. MALE AMENITIES
 14. FEMALE AMENITIES
 15. PWD AMENITIES
 16. BREW/UTILITY
 17. HOT WATER/PLANT
 18. PLANT ROOM
 19. PLANT AREA

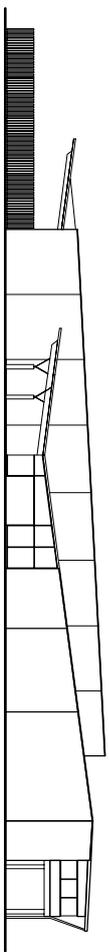
RAAF BASE AMBERLEY
C-17 FACILITIES



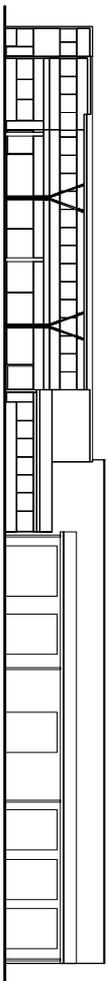
AIR MOVEMENTS SECTION
FIRST FLOOR PLAN



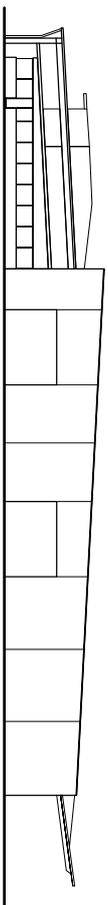
WEST ELEVATION



SOUTH ELEVATION



EAST ELEVATION

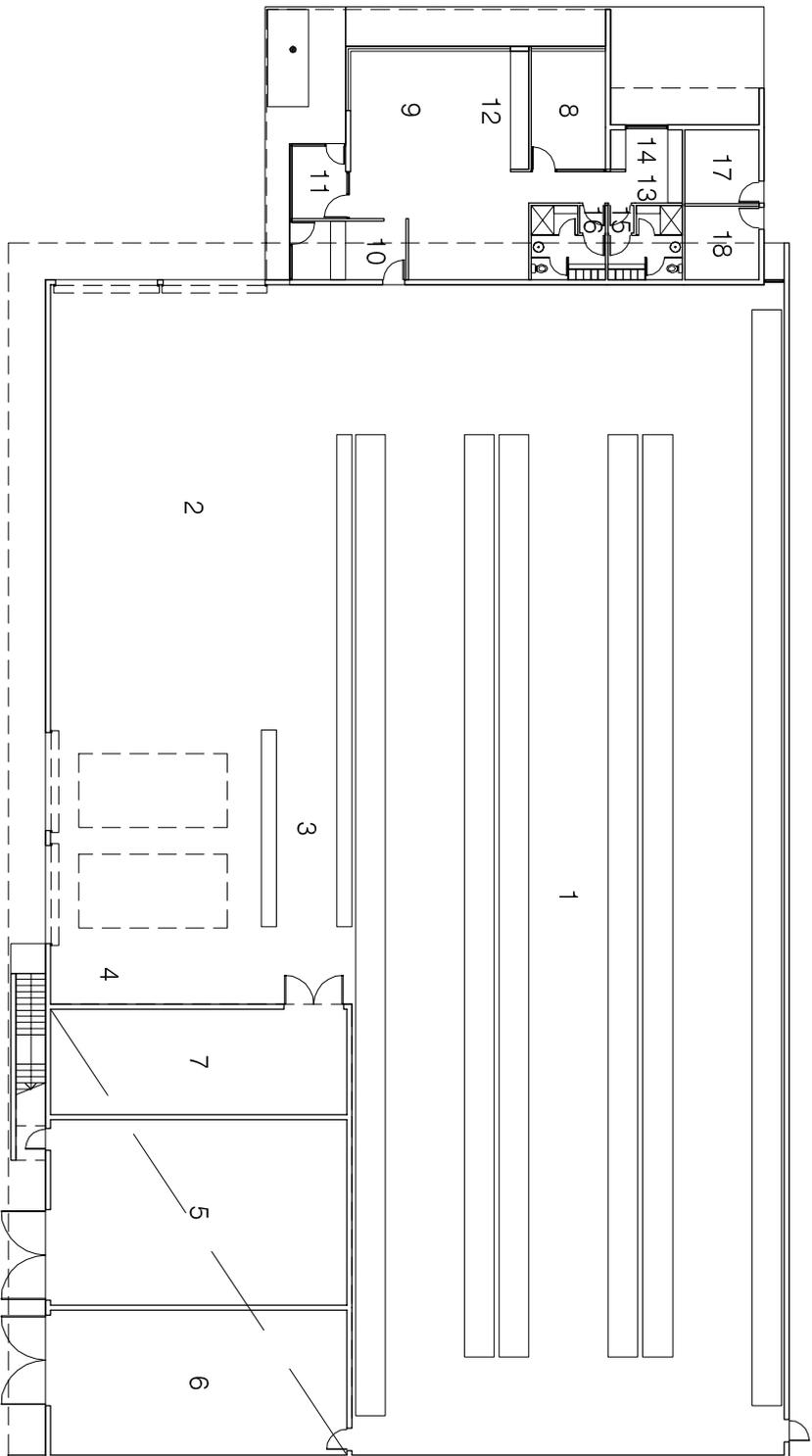


NORTH ELEVATION

RAAF BASE AMBERLEY
C-17 FACILITIES

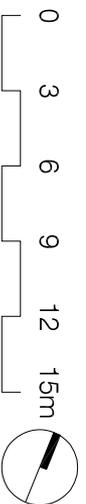


AIR MOVEMENTS SECTION
ELEVATIONS

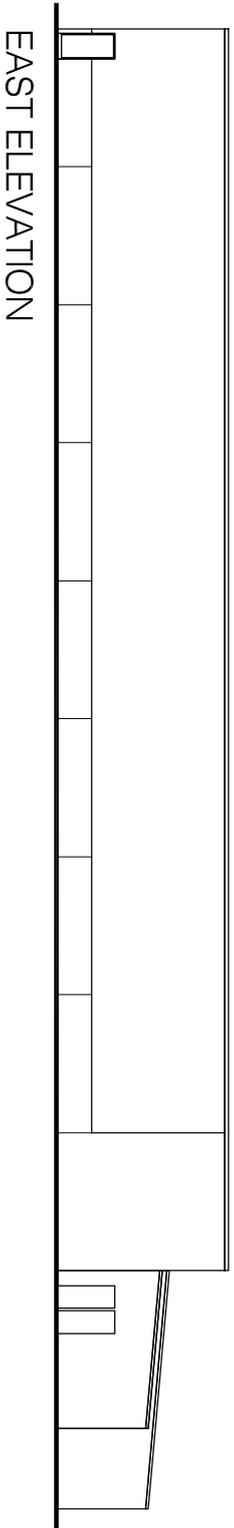
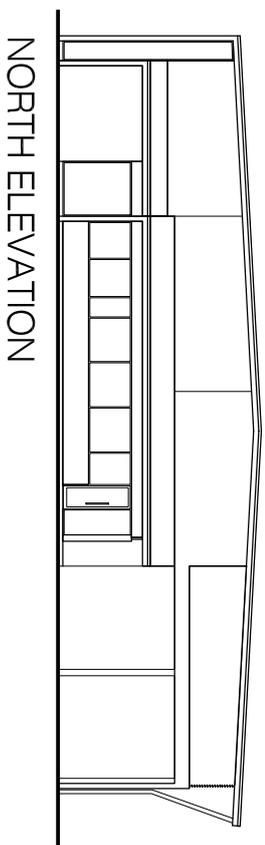
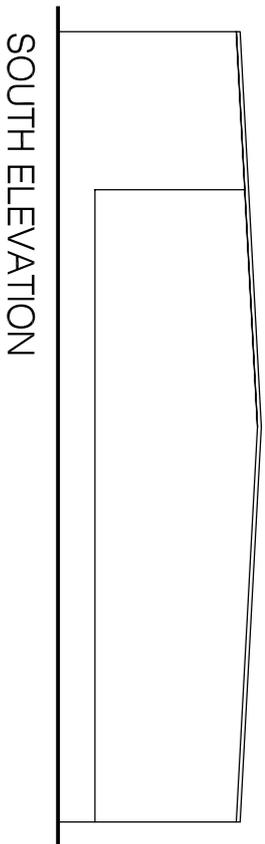
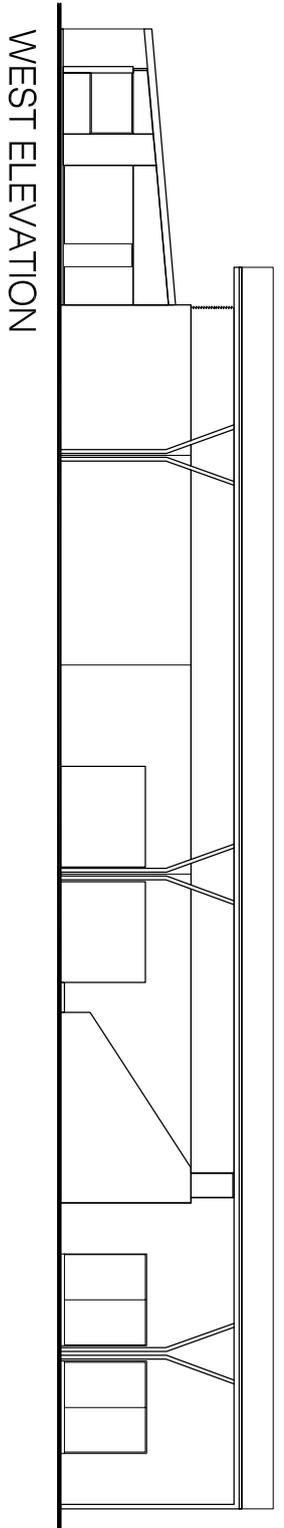


- LEGEND:
1. RACKING
 2. BULK STACKING
 3. SMALL GOODS PACKAG.
 4. ENGINE STORE
 5. SEATING PALLETS
 6. COMFORT PALLETS
 7. CRYPTO STORE
 8. MEETING ROOM
 9. GENERAL OFFICE
 10. ISSUE OFFICE
 11. FOYER
 12. UTILITY
 13. BREW
 14. BREW
 15. MALE AMENITIES
 16. FEMALE AMENITIES
 17. COMMS
 18. COMMS

RAAF BASE AMBERLEY
C-17 FACILITIES



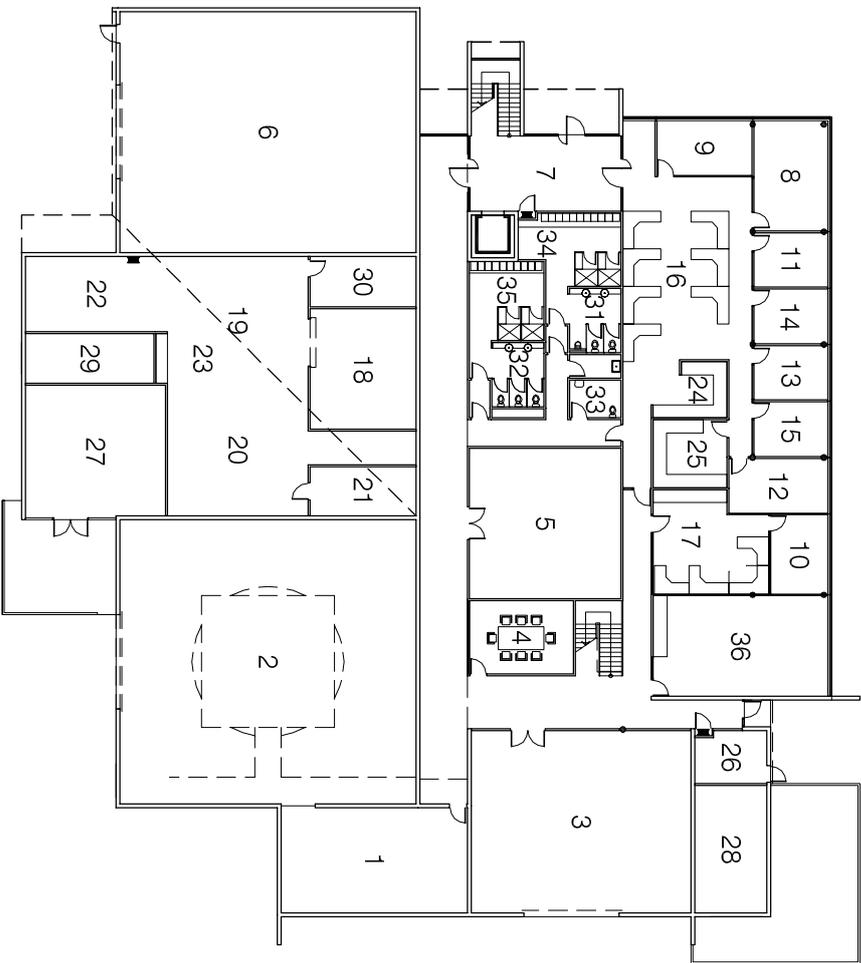
HOME BASE WAREHOUSE
GROUND FLOOR PLAN



RAAF BASE AMBERLEY
C-17 FACILITIES



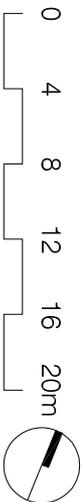
HOME BASE WAREHOUSE
ELEVATIONS



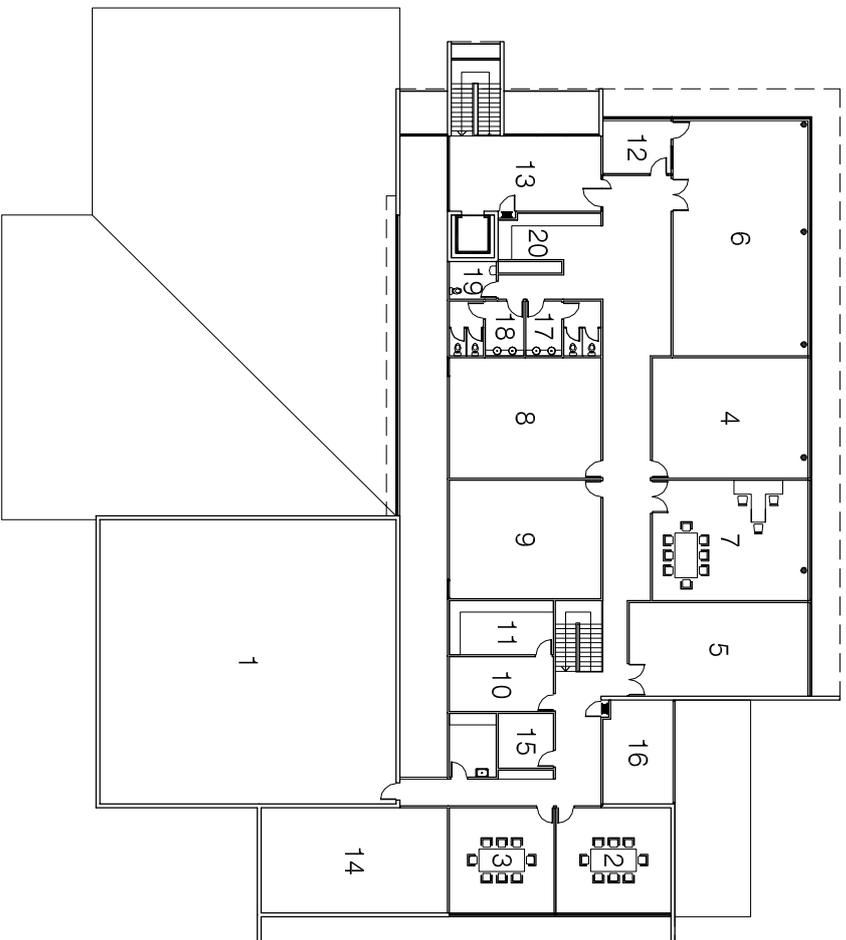
- LEGEND:
1. W.S.T. I.T.
 2. W.S.T. BAY
 3. LOADMASTER STATION
 4. LOAD MASTER BRIEFING
 5. LOAD PLANNING ROOM
 6. TEPATS SIMULATOR
 7. FOYER
 8. SITE MANAGER
 9. ADMIN. OFFICE
 10. ADF REPRESENTATIVE
 11. MAINTENANCE
 12. SCHEDULING
 13. WST INSTRUTOR
 14. LS INSTRUTOR
 15. TEPATS INSTRUTOR
 16. INSTRUTORS
 17. RAAF INSTRUTOR
 18. MAINTENANCE STORE
 19. DIRTY MAINTENANCE
 20. CLEAN MAINTENANCE
 21. HIGH VALUE STORE
 22. DESPATCH/RECEIVING
 23. BREW
 24. UTILITY
 25. STORE
 26. COMMS ROOM
 27. MECHANICAL PLANT
 28. PLANT ROOM
 29. ELECTRICAL
 30. HOT WATER PLANT
 31. MALE AMENITIES
 32. FEMALE AMENITIES
 33. PWD AMENITIES
 34. MALE CHANGE
 35. FEMALE CHANGE
 36. CREW ROOM

RAAF BASE AMBERLEY

C-17 FACILITIES



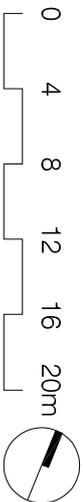
SIMULATOR FACILITY GROUND FLOOR PLAN



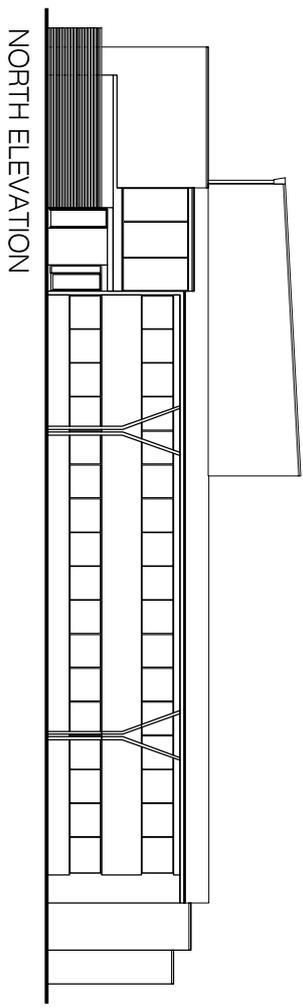
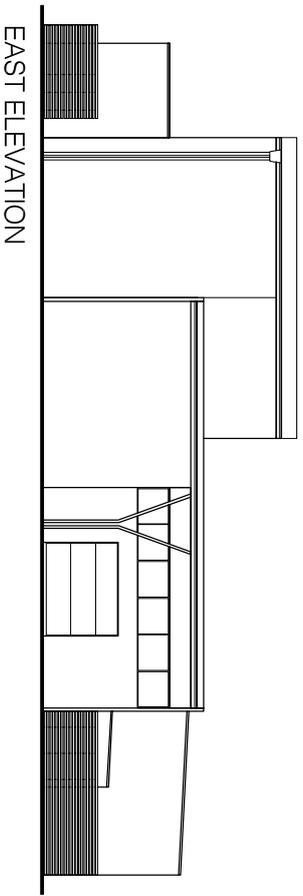
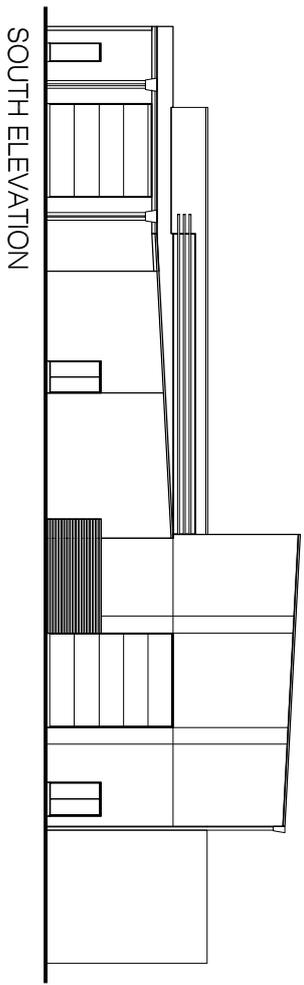
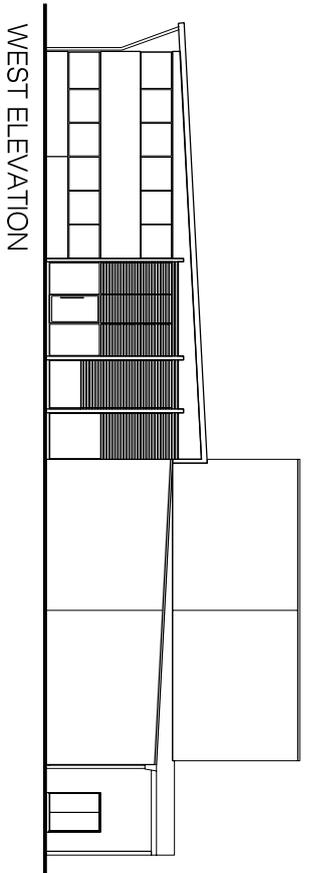
- LEGEND:
1. W.S.T. BAY
 2. W.S.T. BRIEFING
 3. W.S.T. BRIEFING
 4. CIP
 5. VTRAT
 6. CBT
 7. RDS
 8. GENERAL CLASSROOM
 9. GENERAL CLASSROOM
 10. CLS VIEW
 11. CLS STORE
 12. SUPERVISOR'S OFFICE
 13. FOYER
 14. FAN ROOM
 15. CER ROOM
 16. PLANT ROOM
 17. MALE AMENITIES
 18. FEMALE AMENITIES
 19. PWD AMENITIES
 20. BREW

RAAF BASE AMBERLEY

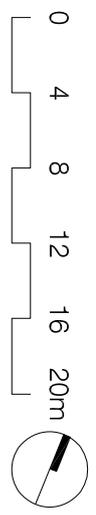
C-17 FACILITIES



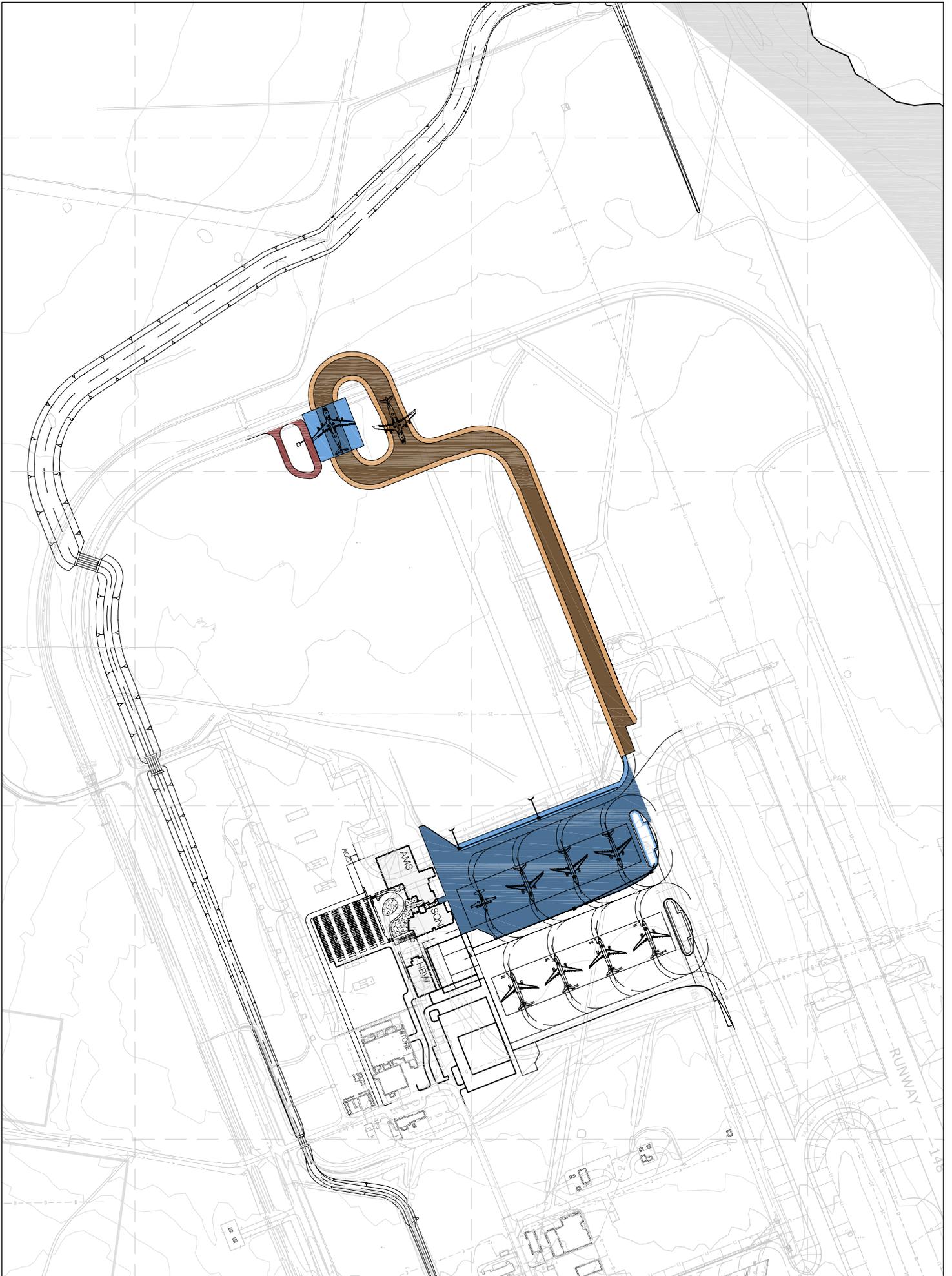
SIMULATOR FACILITY FIRST FLOOR PLAN



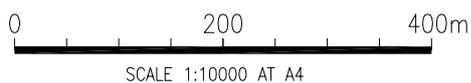
RAAF BASE AMBERLEY
C-17 FACILITIES



SIMULATOR FACILITY
ELEVATIONS



RAAF BASE AMBERLEY
C-17 FACILITIES



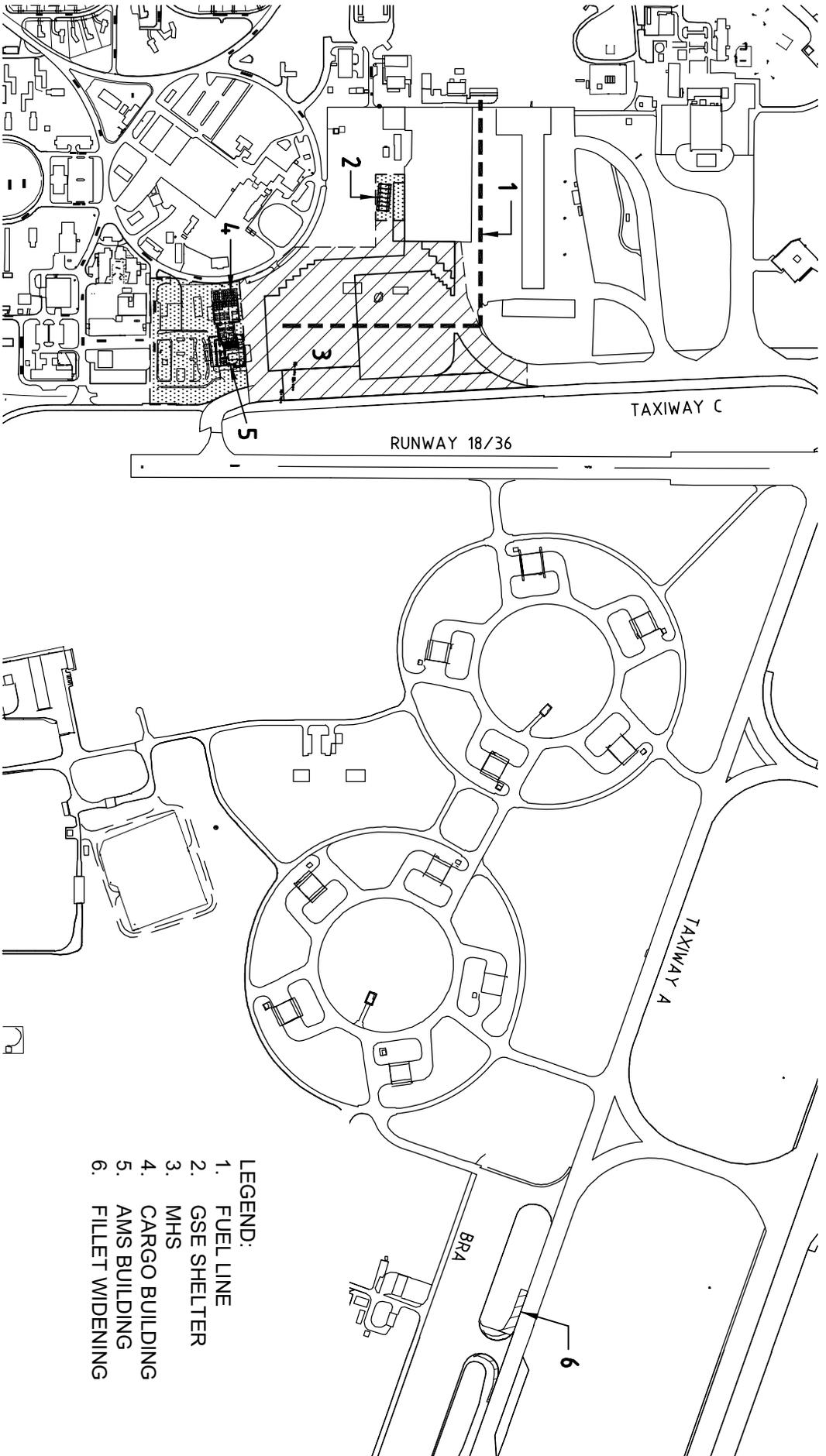
EOA & C17 PARKING APRON
SITE PLAN



C-17 FACILITIES

RAAF BASE DARWIN





- LEGEND:
- 1. FUEL LINE
 - 2. GSE SHELTER
 - 3. MHS
 - 4. CARGO BUILDING
 - 5. AMS BUILDING
 - 6. FILLET WIDENING

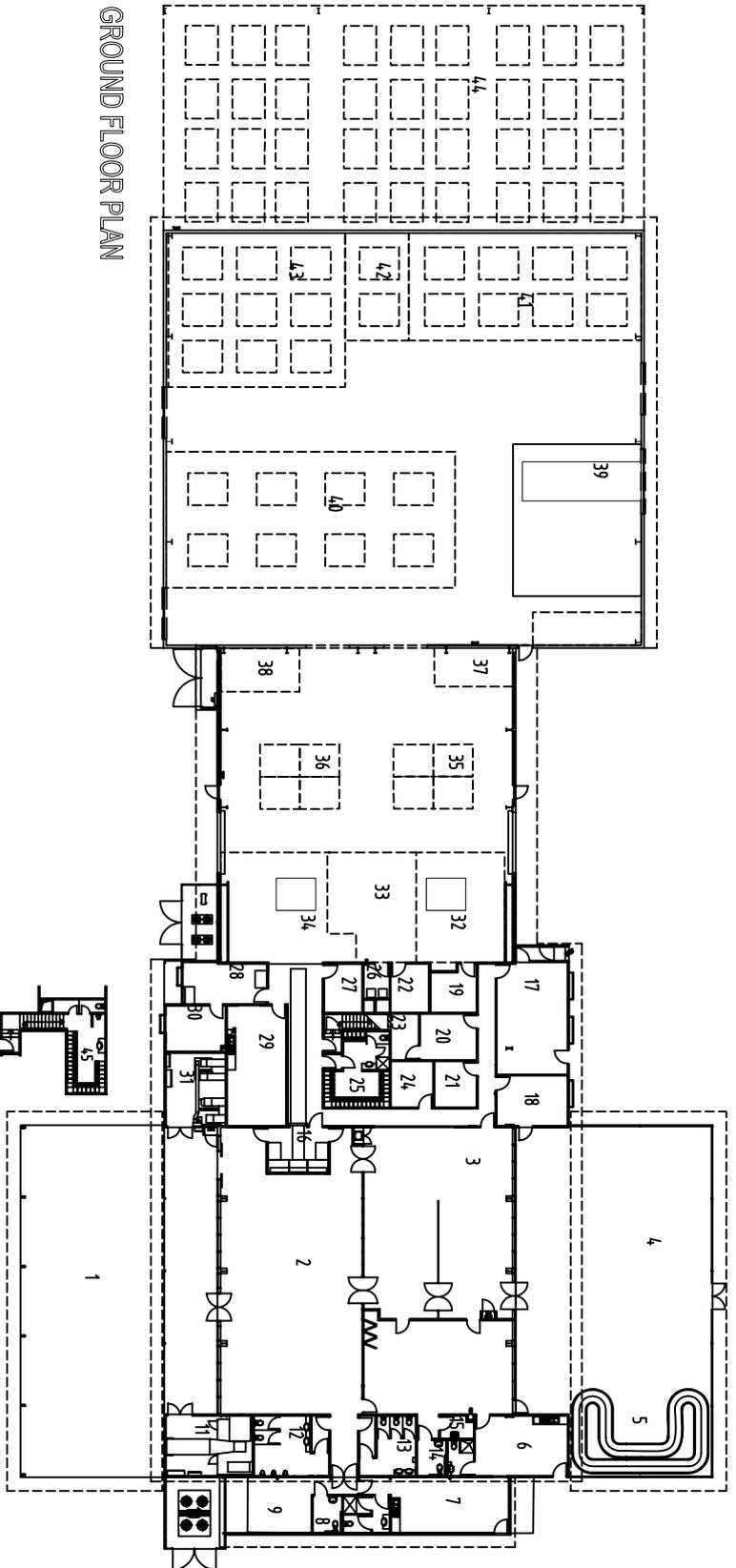
RAAF BASE DARWIN
C17-AIRLIFT FACILITIES



AIR MOVEMENTS FACILITIES
PRECINCT PLAN

RAAF BASE DARWIN C17-AIRLIFT FACILITIES

AIR MOVEMENTS FACILITIES PLAN

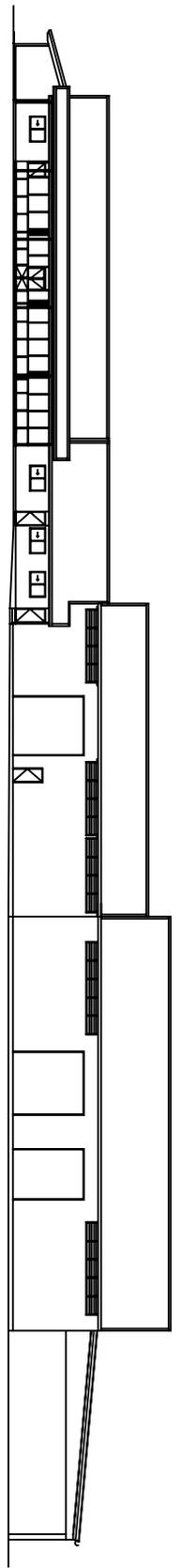


GROUND FLOOR PLAN

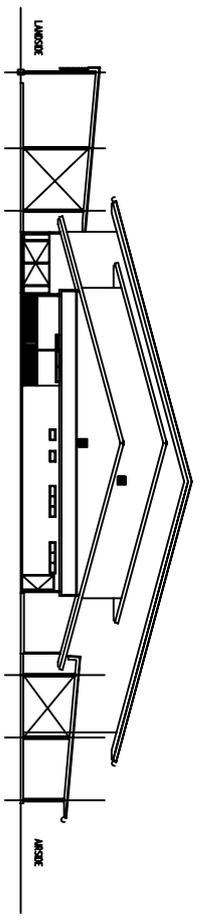
MEZZANINE PLAN

- LEGEND:
- 1. NEW COVERED LANDSIDE AREA
 - 2. EXISTING NON SECURE LOUNGE
 - 3. EXISTING SECURE LOUNGE
 - 4. NEW COVERED AIRSIDE AREA
 - 5. LOCATION FOR FUTURE RECLAIM BAGGAGE CONVEYER
 - 6. EXISTING VIP
 - 7. NEW FLIGHT PLANNING
 - 8. NEW PWD
 - 9. EXISTING DESIGNATED SMOKING AREA
 - 10. EXISTING PLANT
 - 11. EXISTING PLANT
 - 12. EXG MALE TOILET
 - 13. EXG FEMALE TOILET
 - 14. EXISTING PWD
 - 15. EXG CLNR
 - 16. EXISTING CHECKIN
 - 17. LOAD CONTROL
 - 18. OIC
 - 19. W/O OPS.
 - 20. 2IC
 - 21. ACS
 - 22. DAND
 - 23. STORAGE
 - 24. AIDS
 - 25. FEMALE LOCKER
 - 26. LAUNDRY
 - 27. EXG COMMS
 - 28. STORE RECEIPT ADMIN
 - 29. LUNCHROOM/TRAINING
 - 30. TRAINING
 - 31. EXISTING PLANT
 - 32. PALLET PIT
 - 33. BAGGAGE HANDLING
 - 34. PALLET PIT
 - 35. STORE RECEIPT BREAK DOWN
 - 36. STORE RECEIPT BREAK DOWN
 - 37. PALLET STORE
 - 38. PERSONAL DEPLOYMENT KIT
 - 39. TRIPLE BUILD PALLET STAND
 - 40. PALLET BUILD/BREAKDOWN
 - 41. BOND STORE
 - 42. V&A STORAGE
 - 43. INTERNAL BUILT PALLET STORAGE
 - 44. EXTERNAL COVERED BUILT PALLET STORAGE
 - 45. MALE LOCKER (ABOVE STORE(23)&AIDS(24))

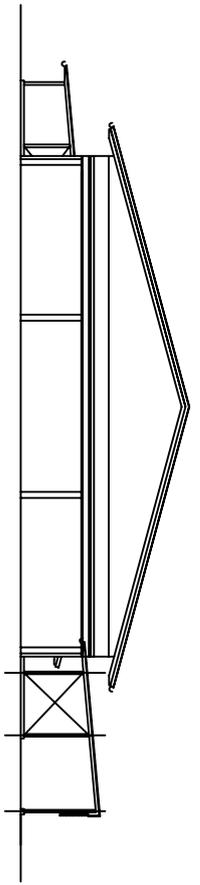




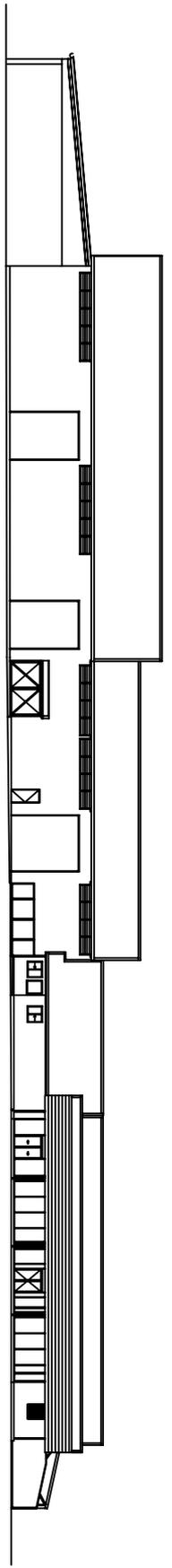
NORTH ELEVATION



EAST ELEVATION



WEST ELEVATION

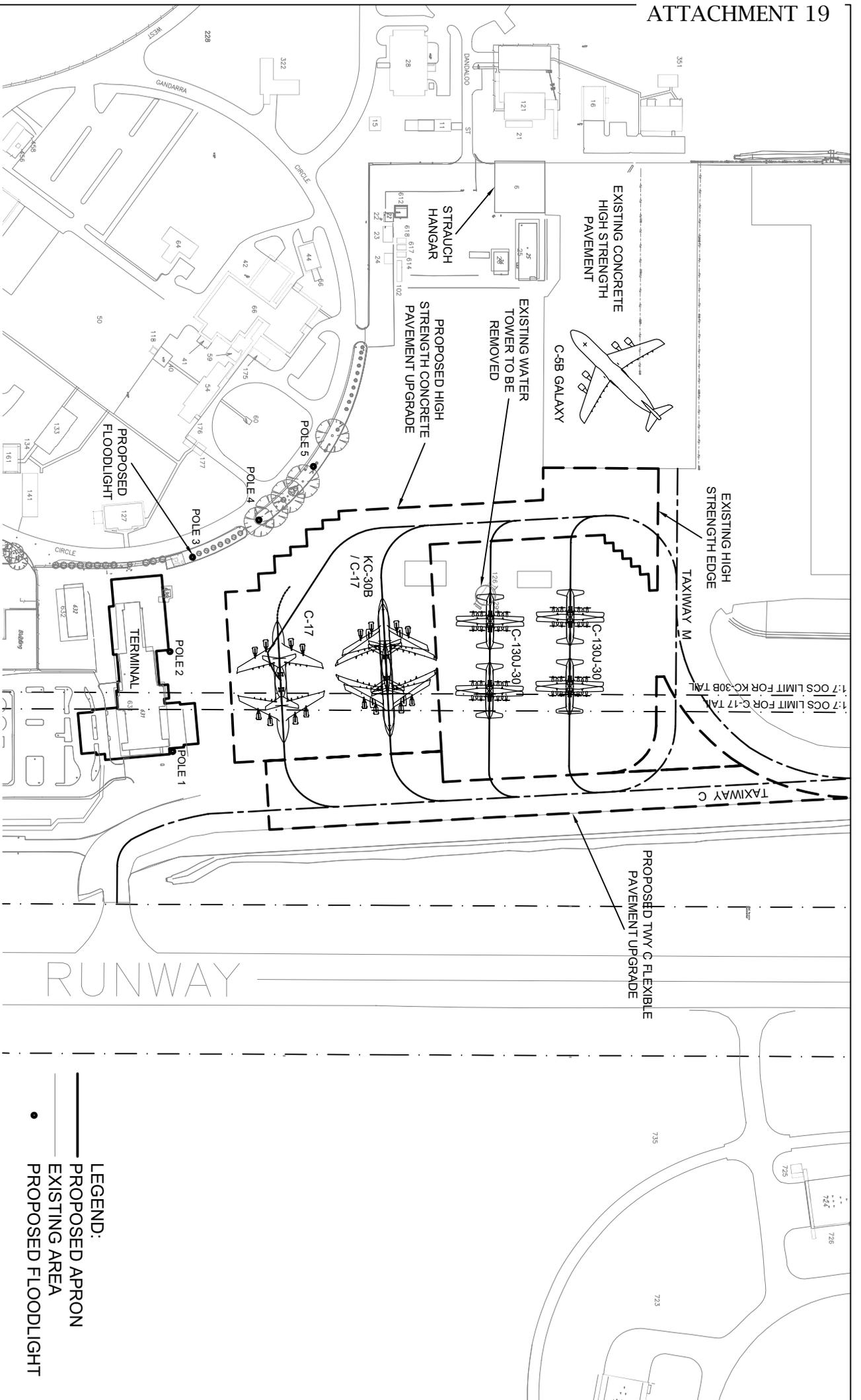


SOUTH ELEVATION

RAAF BASE DARWIN
C17-AIRLIFT FACILITIES



AIR MOVEMENTS FACILITIES
ELEVATIONS

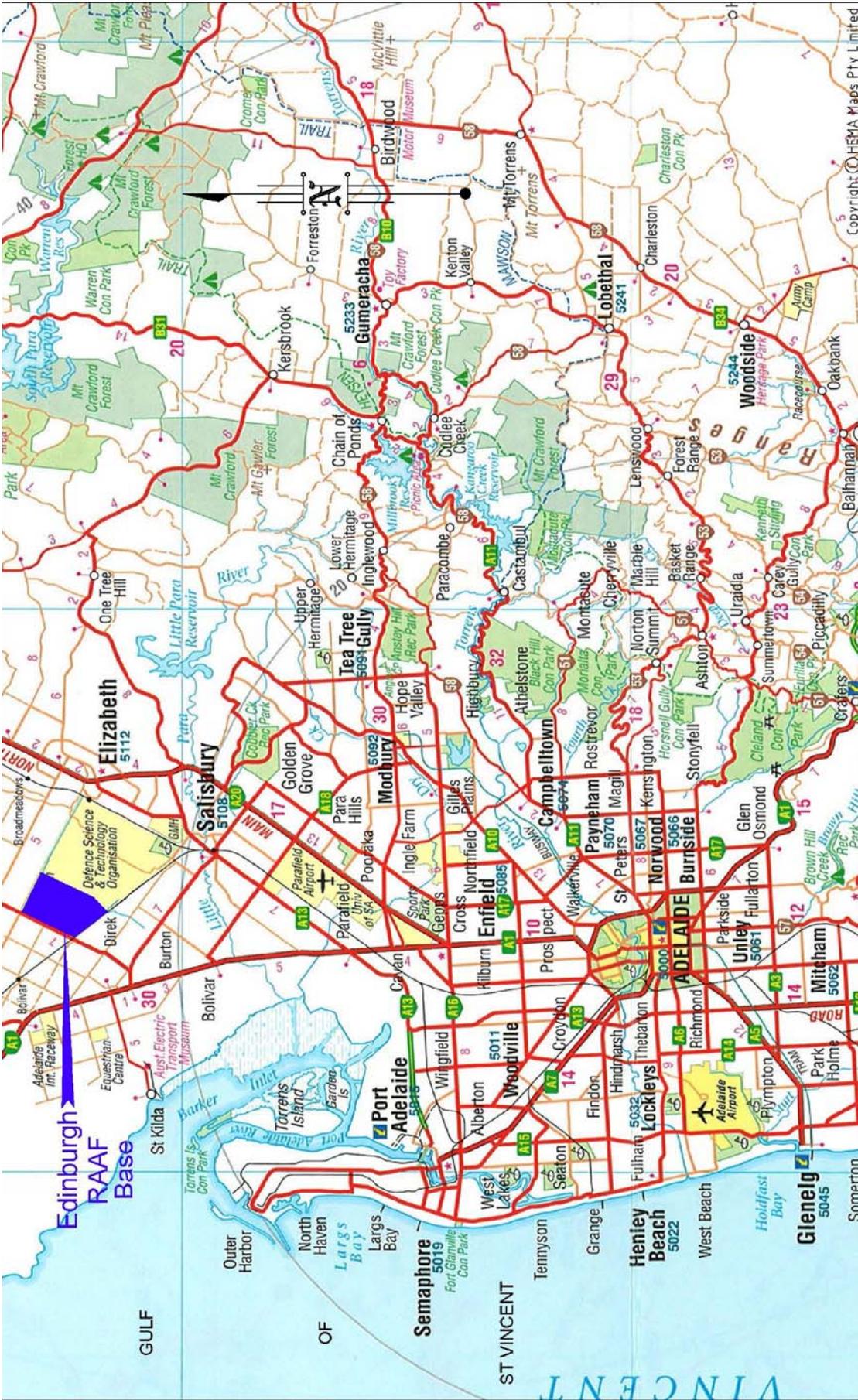


RAAF BASE DARWIN
C17 - AIRLIFT FACILITIES



MILITARY HARDSTAND (MHS) APRON
PROPOSED AIRCRAFT PARKING LAYOUT

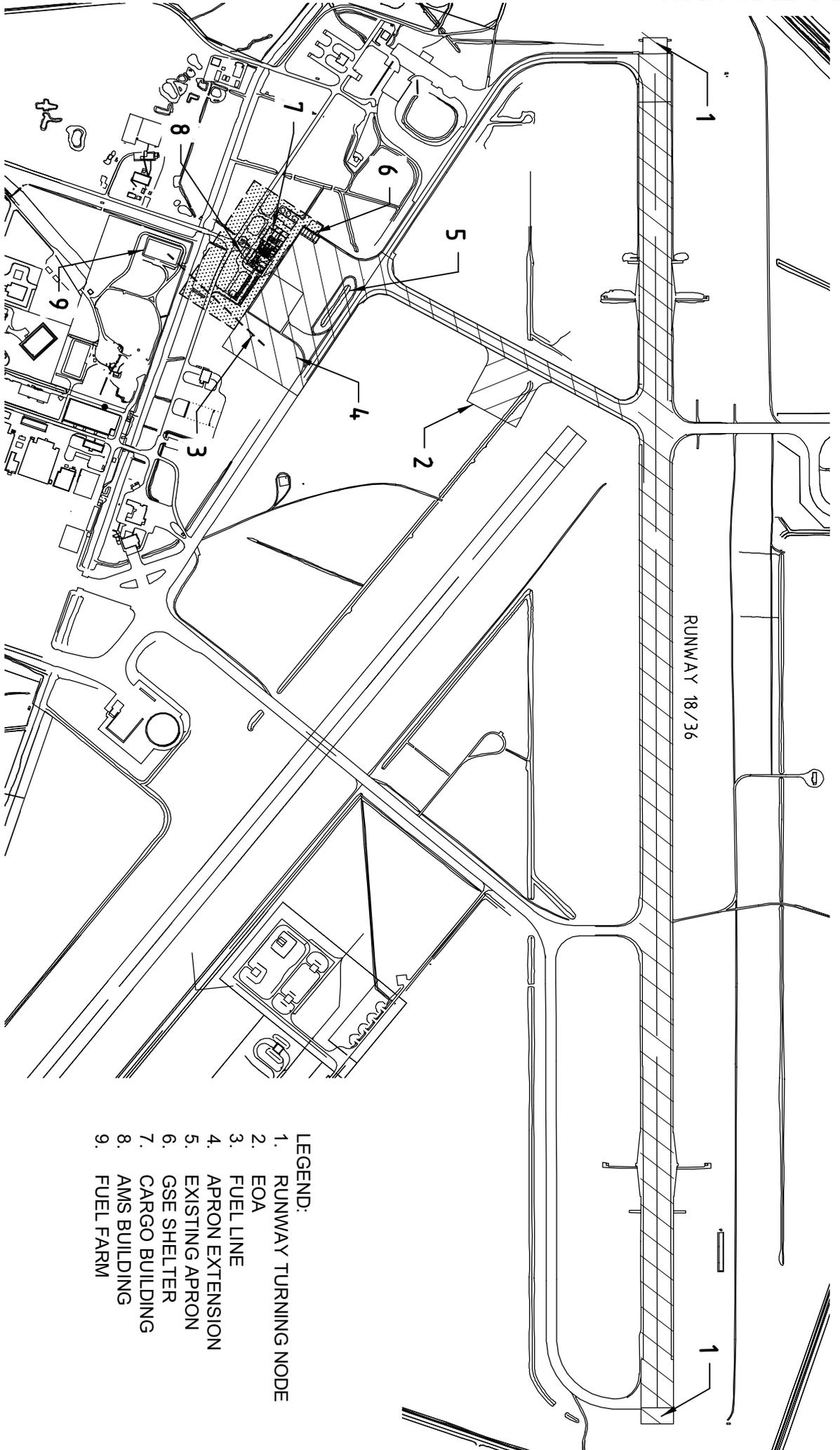
- LEGEND:**
- PROPOSED APRON
 - EXISTING AREA
 - PROPOSED FLOODLIGHT



C-17 FACILITIES

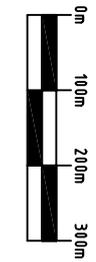
RAAF BASE EDINBURGH



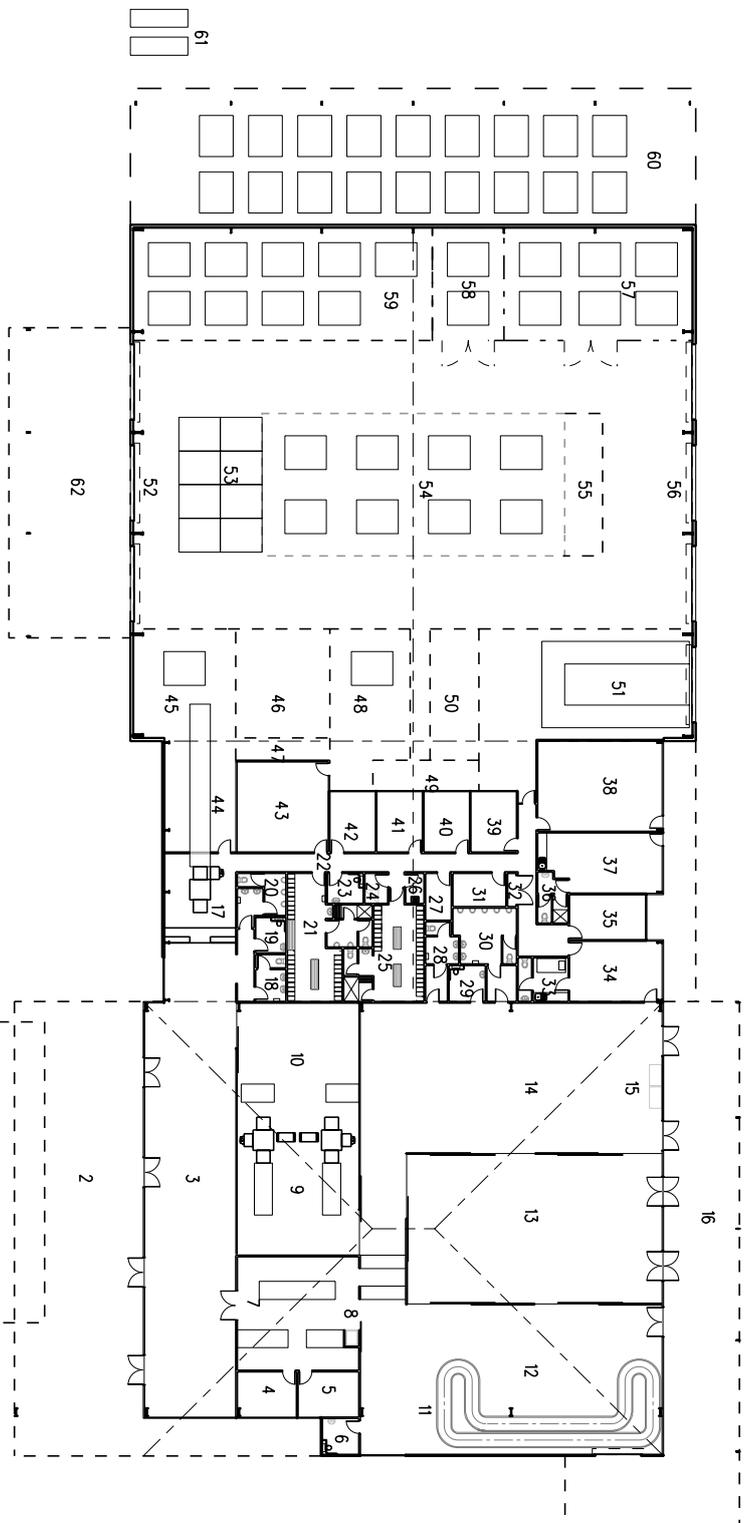


RAAF BASE EDINBURGH
C17-AIRLIFT FACILITIES

- LEGEND:
- 1. RUNWAY TURNING NODE
 - 2. EOA
 - 3. FUEL LINE
 - 4. APRON EXTENSION
 - 5. EXISTING APRON
 - 6. GSE SHELTER
 - 7. CARGO BUILDING
 - 8. AMS BUILDING
 - 9. FUEL FARM



AIR MOVEMENTS FACILITIES
PRECINCT PLAN



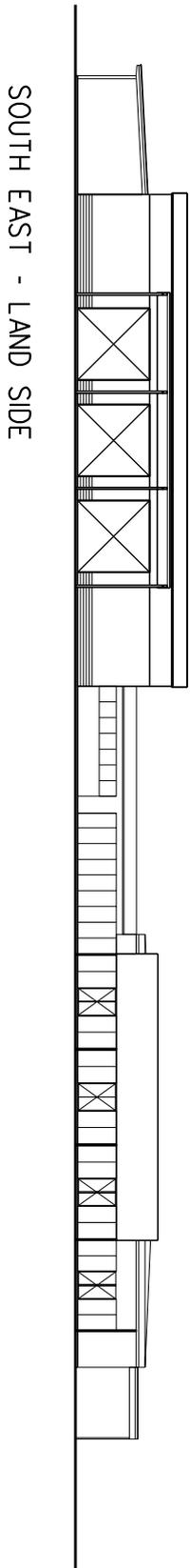
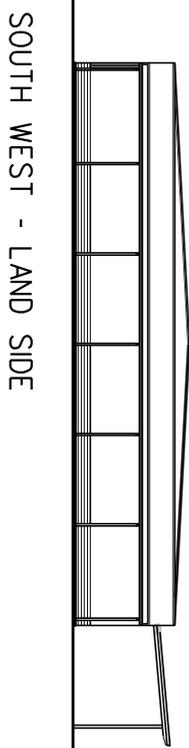
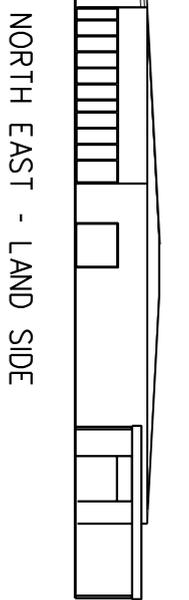
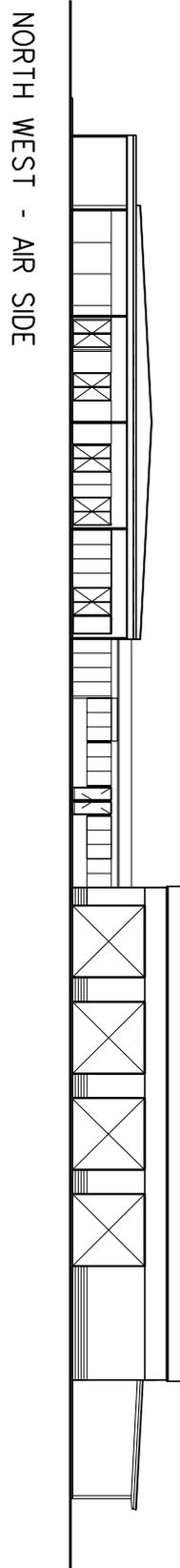
LEGEND

- 1. DROP OFF SHELTER
- 2. UNSECURE SHELTER
- 3. UNSECURE AREA
- 4. AOS
- 5. ACS
- 6. SECURE PWD
- 7. PROCESSING
- 8. BOOT WASH
- 9. PAY SECURITY
- 10. SECURITY CHECK
- 11. BAGGAGE RECLAIM
- 12. SECURE ARRIVALS
- 13. MULTIFUNCTION AREA
- 14. SECURE DEPARTURES
- 15. IN-FLIGHT MEALS
- 16. ARRIVAL SHELTER
- 17. CHECK IN
- 18. UNSECURE FEMALE AMENITIES
- 19. UNSECURE PWD
- 20. UNSECURE MALE AMENITIES
- 21. OFFICE / CARGO FEMALE AMENITIES
- 22. CORRIDOR
- 23. OFFICE / CARGO PWD
- 24. LAUNDRY
- 25. OFFICE / CARGO MALE AMENITIES
- 26. CLEANER
- 27. STORE
- 28. SECURE FEMALE AMENITIES
- 29. SECURE PWD
- 30. SECURE MALE AMENITIES
- 31. COMMS
- 32. ELECTRICAL
- 33. VIP AMENITIES
- 34. VIP / MEETING
- 35. OIC
- 36. FLIGHT PLANNING AMENITIES
- 37. FLIGHT PLANNING
- 38. LOAD CONTROL
- 39. W/O OPS
- 40. ZIC
- 41. DAMO
- 42. TRAINING
- 43. TRAINING / LUNCH
- 44. BAGGAGE CONVEYOR
- 45. PALLET PIT
- 46. BAGGAGE HANDLING
- 47. EQUIPMENT
- 48. PALLET PIT
- 49. EQUIPMENT
- 50. PERSONAL DEPLOYMENT KIT
- 51. TRIPLE MARRIED PALLET STAND
- 52. CARGO TRACKING LAND SIDE
- 53. STORES RECEIPT / BREAKDOWN
- 54. PALLET'S BEING BUILT
- 55. PALLET STORE
- 56. CARGO TRACKING AIR SIDE
- 57. BOND STORE
- 58. V & A STORE
- 59. BUILT PALLET STORE
- 60. EXTERNAL STORAGE
- 61. NEW AXLE WEIGH BRIDGE
- 62. COVERED UNLOADING AREA

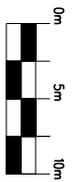
RAAF BASE EDINBURGH
C17-AIRLIFT FACILITIES



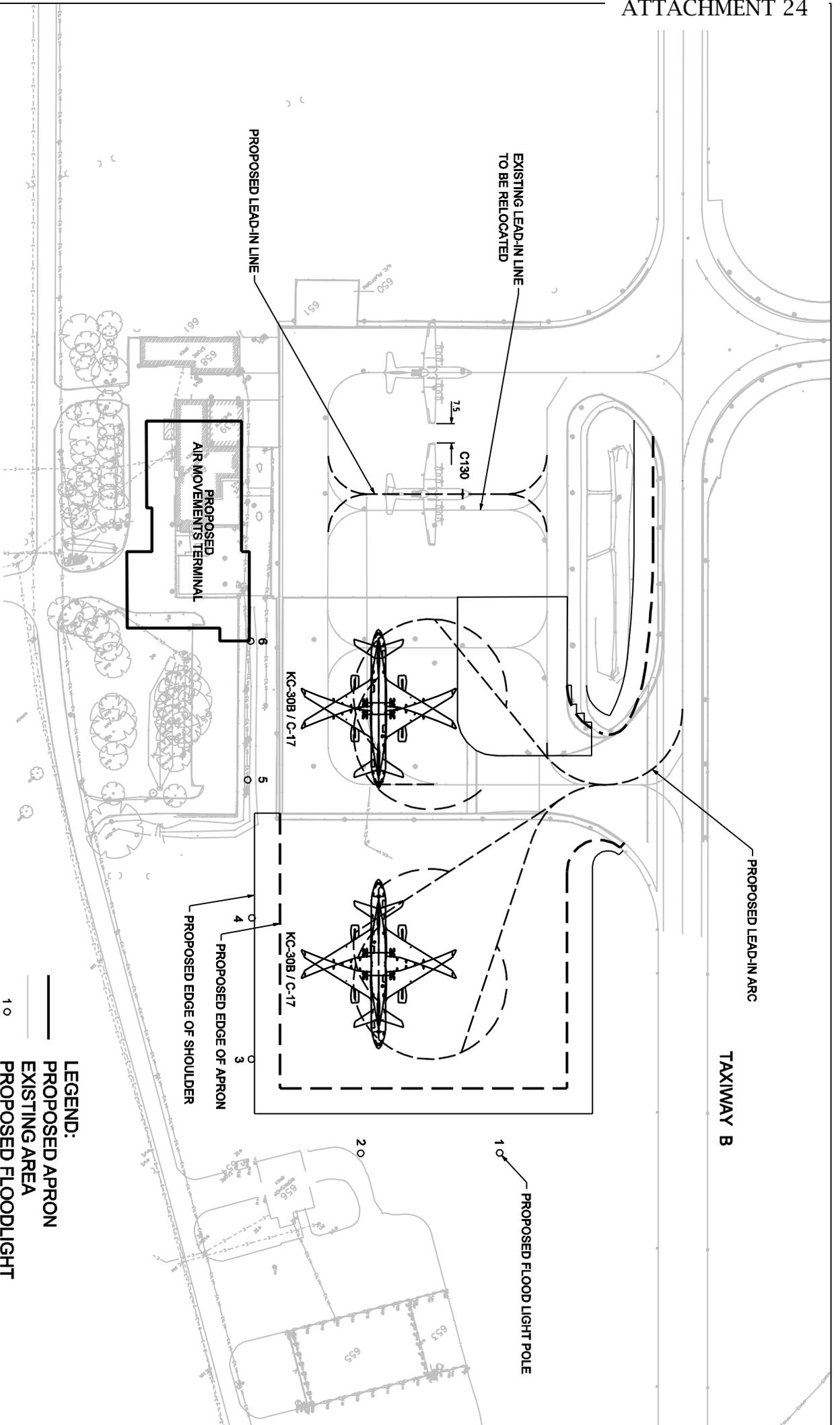
AIR MOVEMENTS FACILITIES
PLAN



RAAF BASE EDINBURGH
C17-AIRLIFT FACILITIES



AIR MOVEMENTS FACILITIES
ELEVATIONS



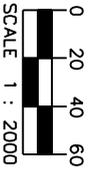
- LEGEND:**
- PROPOSED APRON
 - ▨ EXISTING AREA
 - PROPOSED FLOODLIGHT

RAAF BASE EDINBURGH
C17 - AIRLIFT FACILITIES

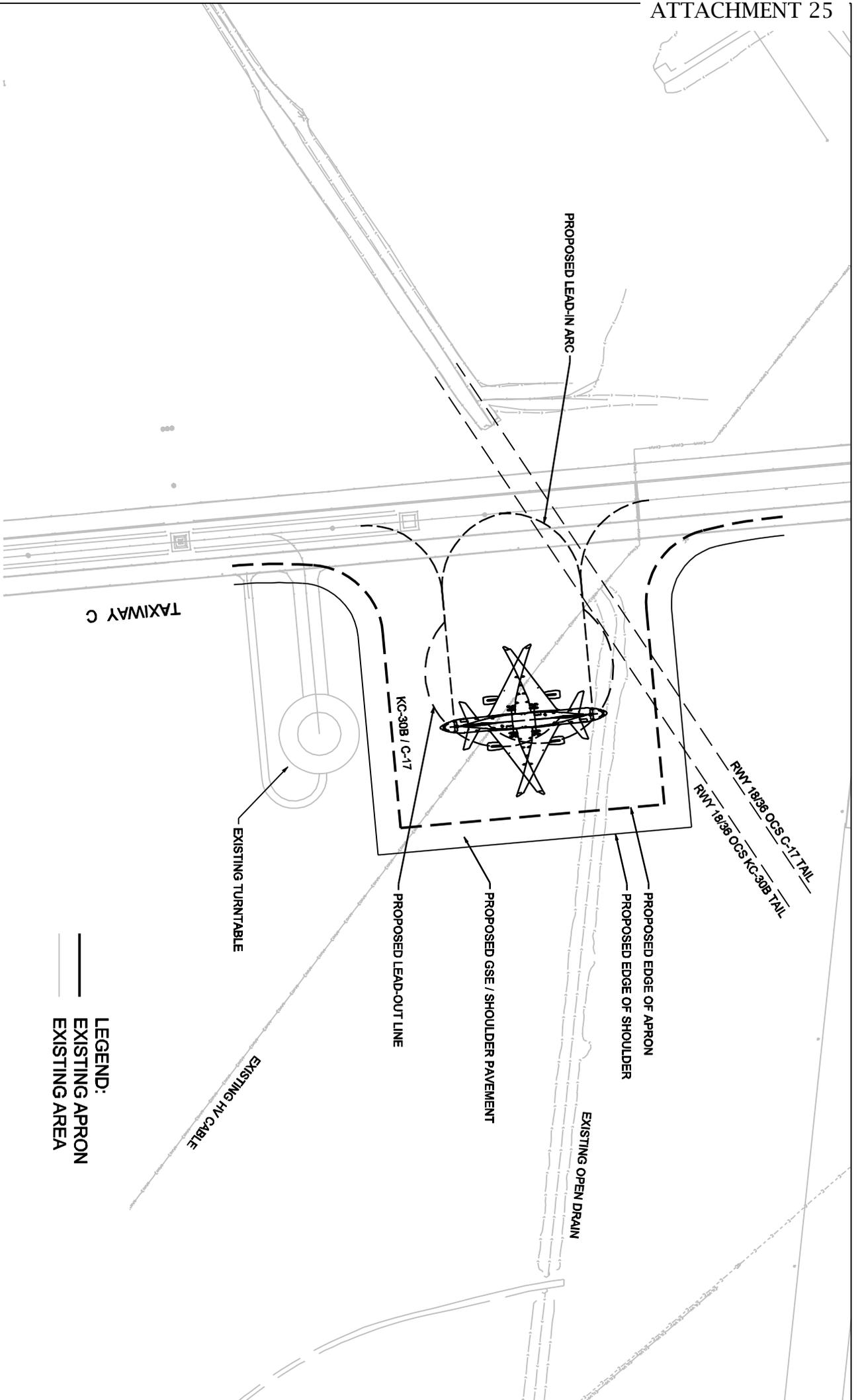


AIR MOVEMENTS SECTION (AMS) APRON
PROPOSED AIRCRAFT PARKING LAYOUT

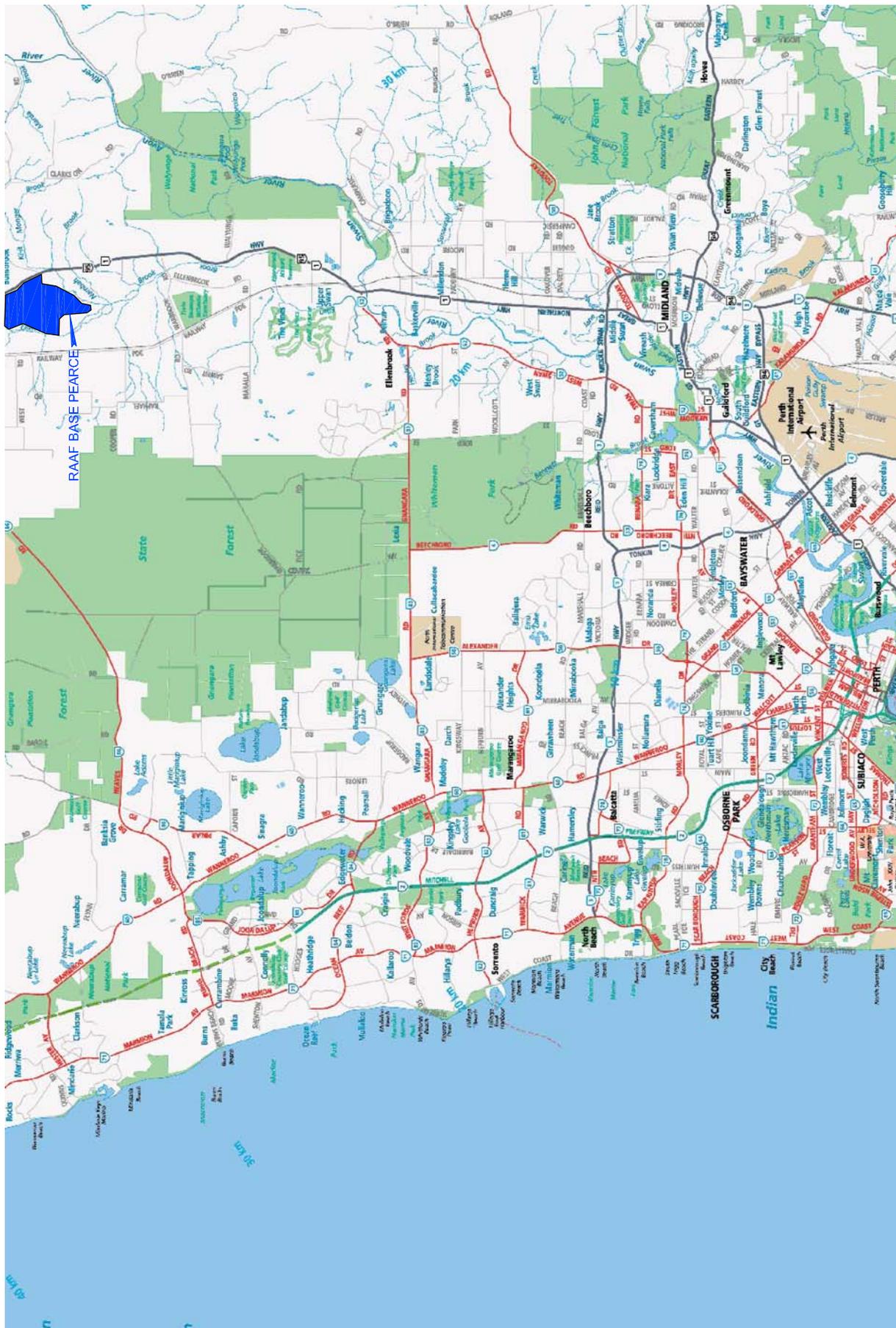
RAAF BASE EDINBURGH C-17 - AIRLIFT FACILITIES



EXPLOSIVE ORDNANCE APRON (EOA) PROPOSED AIRCRAFT PARKING LAYOUT



LEGEND:
 ——— EXISTING APRON
 ——— EXISTING AREA

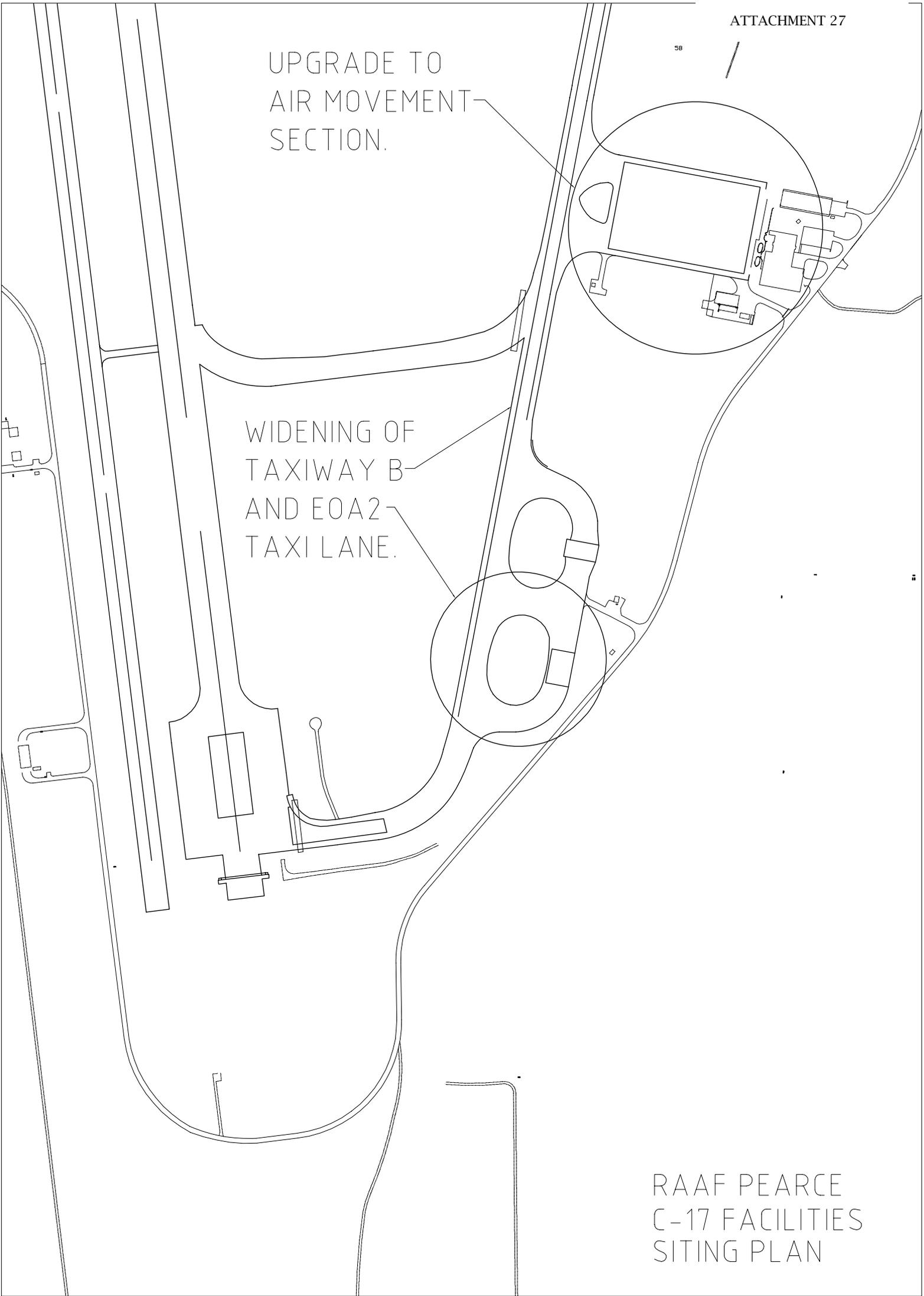


C-17 FACILITIES
RAAF BASE PEARCE

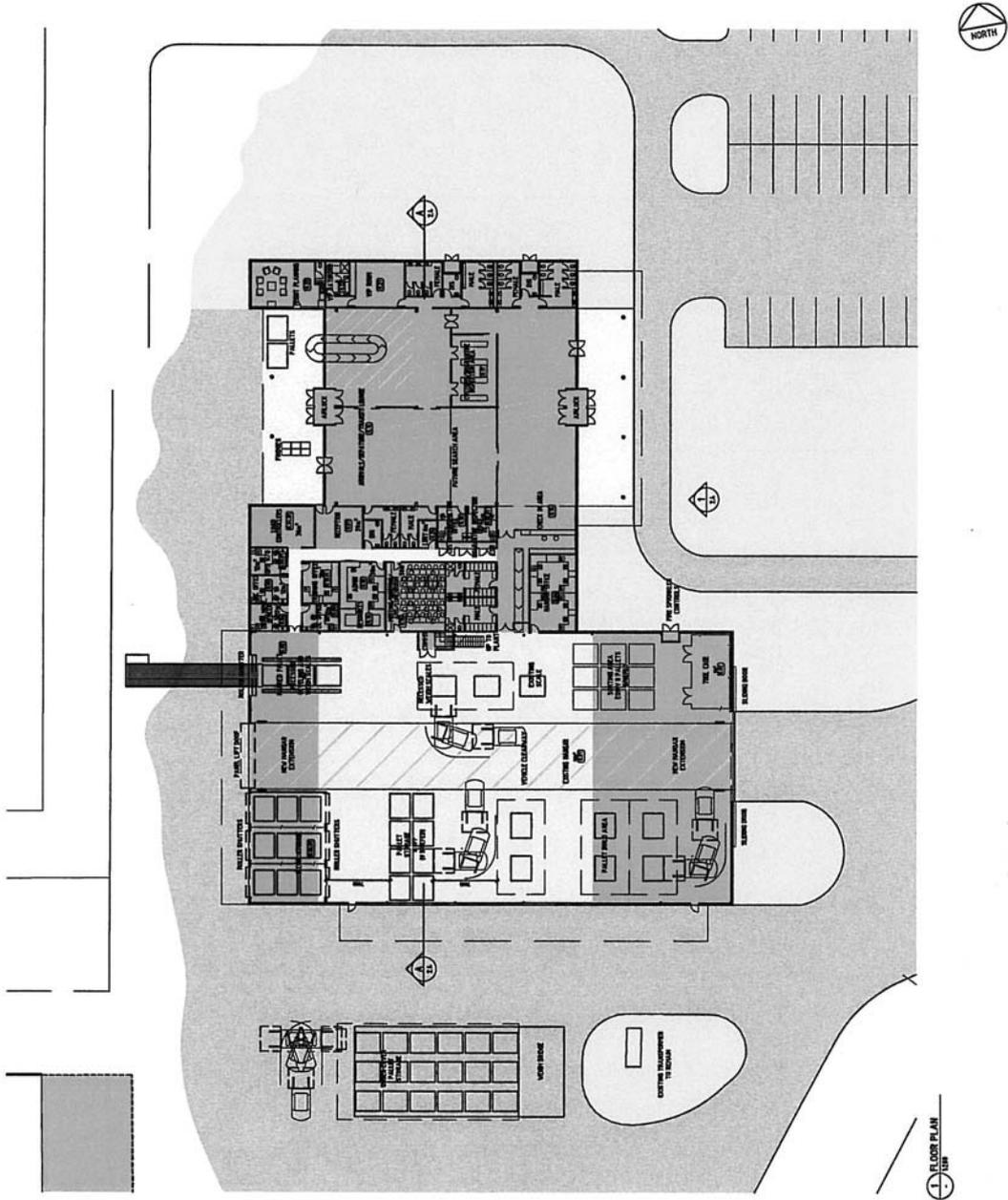
UPGRADE TO
AIR MOVEMENT
SECTION.

WIDENING OF
TAXIWAY B
AND EOA2
TAXI LANE.

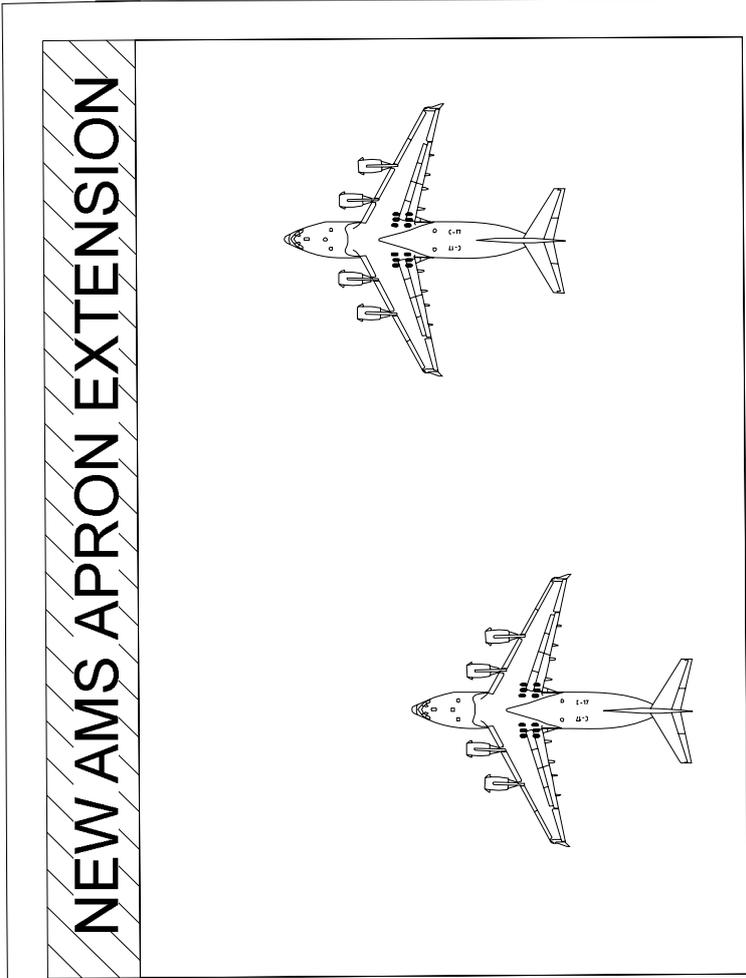
RAAF PEARCE
C-17 FACILITIES
SITING PLAN

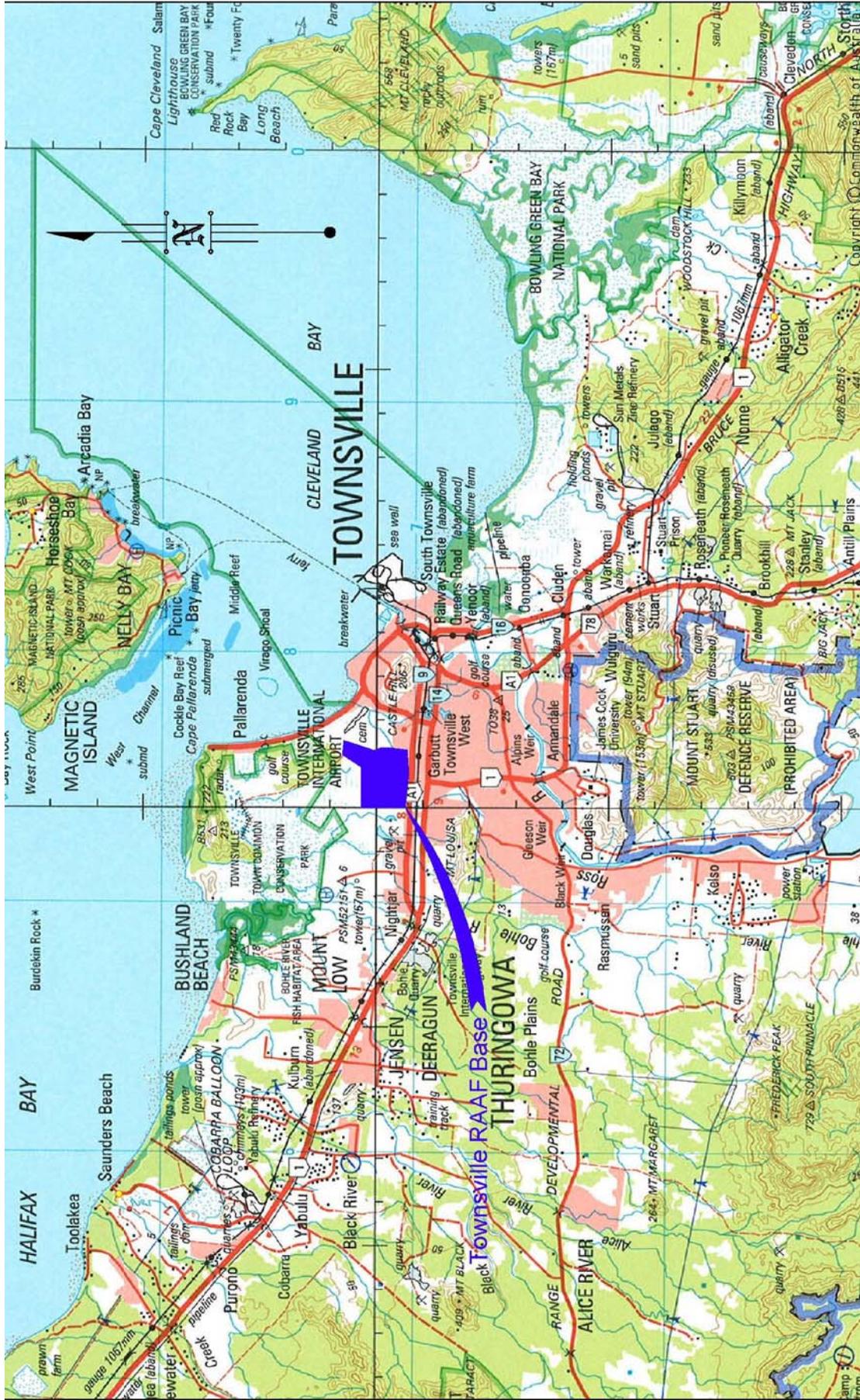


ATTACHMENT 28



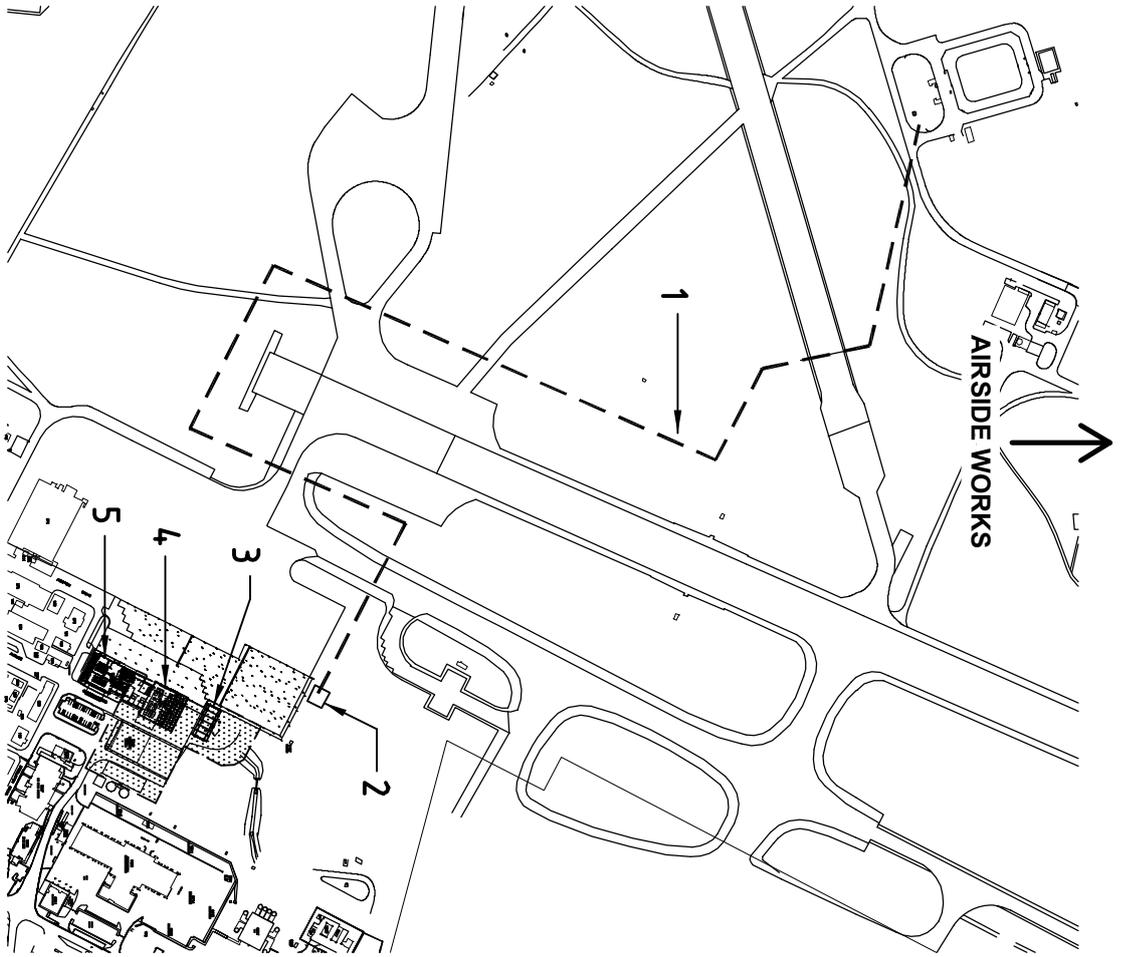
C-17 Facilities Project - RAAF Pearce
Floor Plan





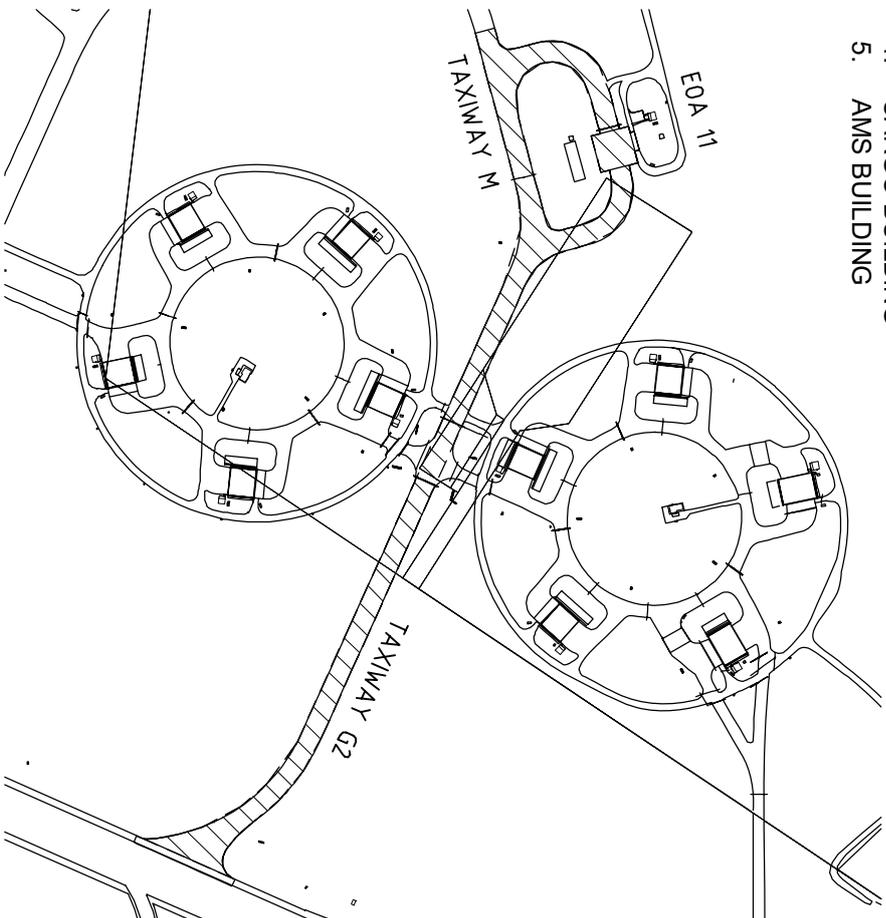
C-17 FACILITIES

RAAF BASE TOWNSVILLE



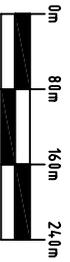
NON-AIRSIDE WORKS

- LEGEND:
1. FUEL LINE
 2. VALVE PIT
 3. GSE SHELTER
 4. CARGO BUILDING
 5. AMS BUILDING

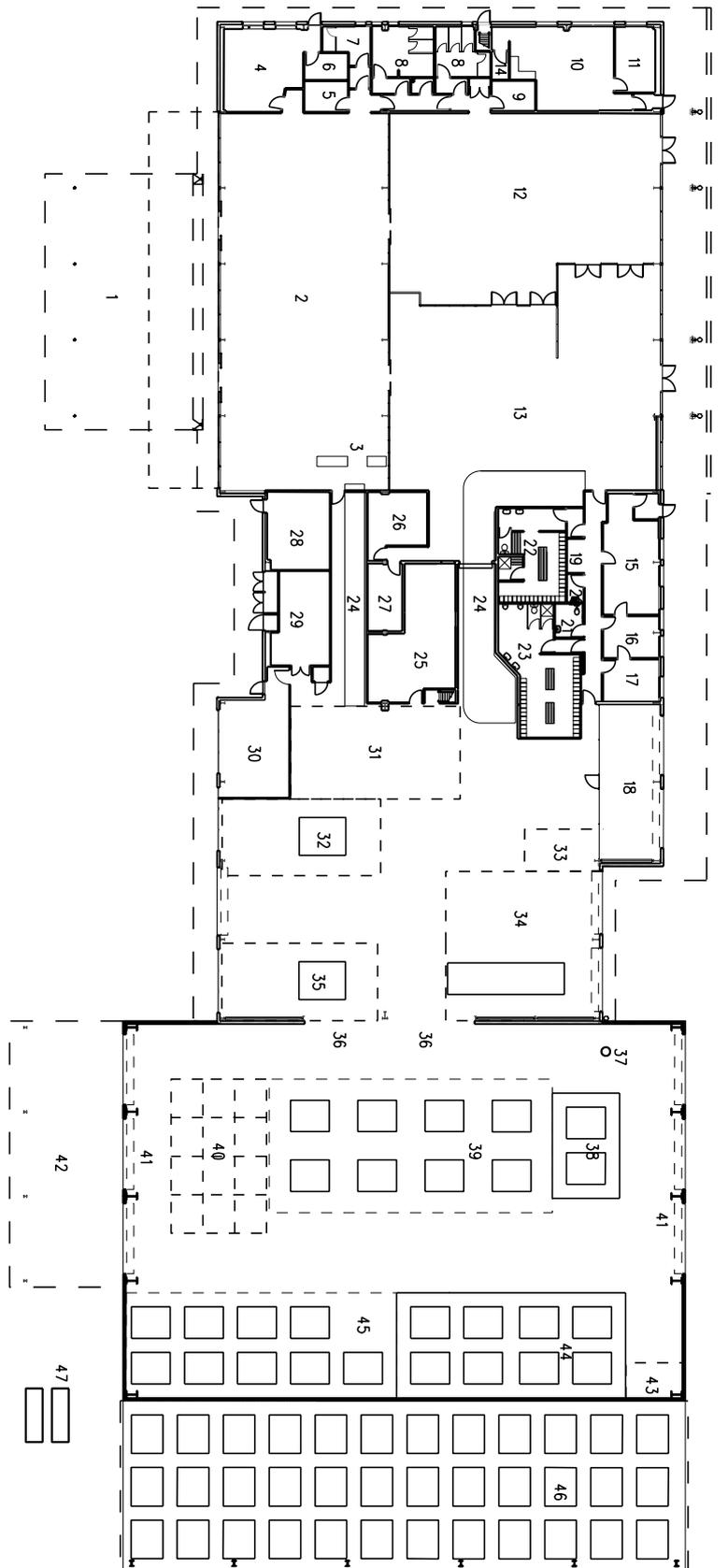


AIRSIDE WORKS

RAAF BASE TOWNSVILLE
C17- AIRLIFT FACILITIES



AIR MOVEMENTS FACILITIES
PRECINCT PLAN



LEGEND

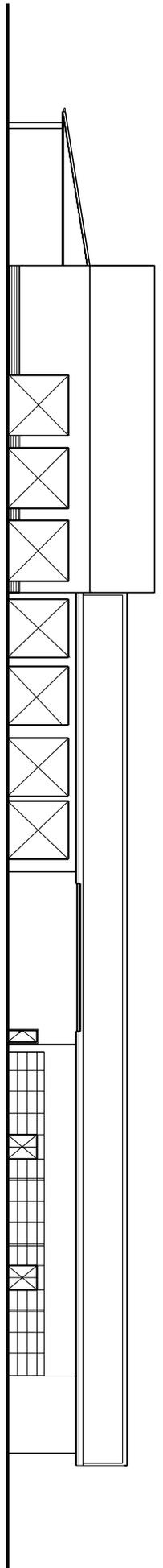
- 1. DROP OFF SHELTER
- 2. EXISTING UNSECURE AREA
- 3. EXISTING CHECK IN COUNTER
- 4. EXISTING VIP
- 5. EXISTING UNSECURE PWD
- 6. EXISTING VIP AMENITIES
- 7. EXISTING UNSECURE AMENITIES
- 8. EXISTING SECURE AMENITIES
- 9. EXISTING SECURE PWD
- 10. EXISTING FLIGHT PLANNING
- 11. EXISTING CREW
- 12. EXISTING SECURE DEPARTURES
- 13. EXISTING SECURE ARRIVALS
- 14. EXISTING WC
- 15. EXISTING OPS TRAINING
- 16. EXISTING 2IC
- 17. EXISTING OIC
- 18. PERSONAL DEPLOYMENT KIT
- 19. LAUNDRY
- 20. CLEANER
- 21. OFFICE / CARGO PWD
- 22. NEW OFFICE / CARGO FEMALE AMENITIES
- 23. NEW OFFICE / CARGO MALE AMENITIES
- 24. EXISTING BAGGAGE
- 25. NEW LOAD CONTROL
- 26. CUSTOMS
- 27. AOIS
- 28. COMMS ROOM
- 29. EXISTING E2 KIT ROOM
- 30. NEW LUNCH ROOM
- 31. BAGGAGE HANDLING
- 32. NEW PALLET PIT
- 33. NEW PALLET STORE
- 34. EXISTING TRIPLE MARRIED PALLET STAND
- 35. EXISTING PALLET PIT
- 36. NEW OPENING
- 37. NEW SLIDING DOOR
- 38. V & A
- 39. PALLET BUILD BREAKDOWN
- 40. 2IC
- 41. CARGO TRACKING
- 42. NEW CARGO SHELTER
- 43. EQUIPMENT
- 44. BOND STORE
- 45. BUILT PALLET STORAGE
- 46. NEW COVERED EXTERNAL STORAGE
- 47. AXLE WEIGHBRIDGE

RAAF BASE TOWNSVILLE
C17-AIRLIFT FACILITIES

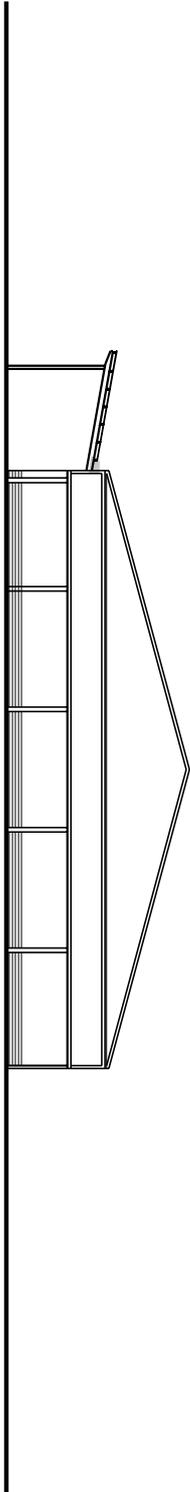


AIR MOVEMENTS FACILITIES
PLAN

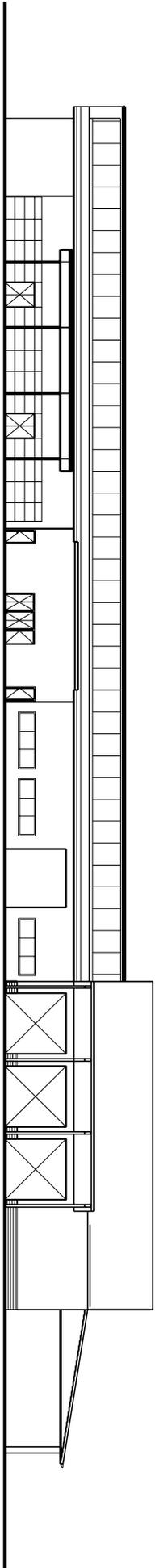
NORTH - AIR SIDE



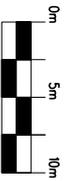
WEST - LAND SIDE



SOUTH - LAND SIDE



RAAF BASE TOWNSVILLE
C17-AIRLIFT FACILITIES



AIR MOVEMENTS FACILITIES
ELEVATIONS