Airservices Australia, Aviation Rescue Fire Fighting Services

NexGen Project for the End of Life Facilities Upgrades – Phase 1a

Queensland & Victoria

SUBMISSION 1.0
(PUBLIC)

STATEMENT OF EVIDENCE TO THE
PARLIAMENTARY STANDING COMMITTEE ON
PUBLIC WORKS

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Executive Summary

1. Airservices Aviation Rescue and Fire Fighting Services (ARFFS) operates at 27 of Australia's busiest airports, providing round-the-clock coverage at major hubs such as Sydney, Perth, Melbourne, Brisbane, and Adelaide. Their mission is to ensure the safety of people and property by responding swiftly to aircraft crashes, fires, and other emergencies, including hazardous material incidents and medical situations. ARFFS manages approximately 7,000 emergency assistance requests annually, equipped with specialised vehicles, thermal imaging technology, and advanced fire fighting expertise. They also conduct fire prevention inspections and support high-risk activities such as aircraft refuelling, playing a crucial role in maintaining operational safety and compliance with international standards.

2. ARFFS has an excellent history of supporting Australian aviation through its rescue and fire fighting capability. However, ARFFS faces challenges, including an ageing ultra large fire fighting vehicles (ULFV) fleet, end of life facilities, and the need to move to a more modern and environmentally sustainable training model. These issues will be exacerbated by projected growth of ~35% in airport passenger movements by 2030 and the imperative on ARFFS to maintain fit for purpose facilities to support projected required workforce expansion.

3. Airservices has proposed 'ARFFS NexGen' works over the next decade or so, in three phases, to modernise ARFFS operations to ensure sufficient 'Category resilience' to meet operational requirements, i.e. that each aerodrome is able to meet the standards set for that aerodrome with a margin of operational resilience. This will involve replacing end-of-life assets including ULFV fleet and select fire stations and moving from a large number of traditional 'hot fire' training grounds to a small number of more environmentally sensitive 'hot fire' grounds nationally, complemented by local fire-free and foam-free 'cold drill grounds'. The works are also designed to meet workforce commitments and improve people engagement.

4. Phase 1 of the ARFFS NexGen works has been selected to ensure stations receiving the first two procurement phases of ULFVs have capacity to store the larger fleet, and to begin training facilities works to support the ~30% increase in workforce required within the next two years.

5. This submission relates to Phase 1a of works, which includes the rebuild of three end of life facilities (Cairns, Rockhampton, Mackay), minor works across 3 sites (Gladstone, Sunshine Coast, and Melbourne Learning Academy), and cold drill grounds to support training objectives and meet CASA regulations and meet ongoing workforce capability training needs

(Cairns, Mackay, Rockhampton, Gladstone, and Sunshine Coast). Cairns current Hot Fire Training Ground (HFTG) will require decommissioning prior to cold drill ground construction.

6. The overall cost (excluding GST) of the proposed works is estimated at $163.4m and includes the following components:
    - Cairns ARFFS Station Rebuild
    - Rockhampton ARFFS Station Rebuild
    - Mackay ARFFS Station Rebuild
    - Minor works for fire-free and foam-free 'cold drill grounds' at Cairns, Mackay, Rockhampton, Gladstone, and Sunshine Coast
    - Minor station upgrade works to tender bays at Gladstone, Sunshine Coast, and the Melbourne Learning Academy
7. The estimated whole of life costs for the Phase 1a ARFFS works is $163.4m over a 25-year period. This will include a combined fit-out space with an average occupational density of 59m^2 per person at a cost of $3,177 per square metre (excluding GST).
8. The works will be designed and constructed in accordance with relevant legislation, standards, codes and guidelines. Accredited building certifiers will certify the compliance of the design and completed works.
9. Environment Protection and Biodiversity Conservation Act (EPBC Act) self-assessments have been completed for the proposed works. The works have been assessed to have a low risk to the existing environmental and heritage values. The site locations and works have been selected and designed to minimise environmental impacts during both construction activities and operations.

Acronyms

Term	Description
ARFFS	Aviation Rescue Fire Fighting Services
BCA	Building Code of Australia
BITRE	Bureau of Infrastructure and Transport Research Economics
CASA	Civil Aviation Safety Authority
COTS	Commercial Off the Shelf
DRV	Domestic Response Vehicle
EMP	Environmental Plan Management
EPA	Environmental Protection Act
EPBC Act	Environmental Protection and Biodiversity Act
EVT	Emergency Vehicle Technician
EWIS	Emergency Warning and Intercommunication System
FCC	Fire Control Centre
GST	Goods and Services Tax
HFTG	Hot Fire Training Ground
HMP	Heritage Management Plan
HRET	High Reach Extendible Turret
ISM	Information Security Manuals
ISO	International Organisation for Standardisation
MASDS	Multi-Aspirating Smoke Detection Systems
MLA	Melbourne Learning Academy
NCC	National Construction Code
OEM	Original Equipment Manufacturer
PFAS	Per-and polyfluoroalkyl Substances
PPE	Personal protective equipment
PSPF	Protective Security Policy Framework
ULFV	Ultra Large Fire Vehicle
WHS	Work Health Safety

Project title

Airservices Australia, Aviation Rescue Fire Fighting Services NexGen Project for End of Life Facilities Upgrade – Phase 1a.

About Airservices Australia

10. Airservices is a government-owned organisation established under the *Air Services Act 1995* for the provision of air traffic management, air navigation support (communications, infrastructure, radar and navigation aids) and Aviation Rescue Fire Fighting Services (ARFFS) to the aviation industry.
11. Airservices derives its revenue from the provision of Air Traffic Control and ARFFS, which funds its operating expenses and investment plan.
12. Airservices operates commercially on a fee-for-service basis and generally receives no Government appropriations.

Purpose of works

13. The objective of the ARFFS NexGen project is to replace end of life assets including Ultra Large Fire Vehicles (ULFV) to provide reliable and resilient ARFFS and meet operational requirements specified by the safety regulator the Civil Aviation Safety Authority (CASA).
14. The program also involves moving from a number of small traditional black smoke ‘hot fire’ training grounds to three larger and more environmentally sensitive ‘hot fire’ training ground ‘hubs’ nationally. The program will also invest in local fire-free and foam-free ‘cold drill grounds’ at each station.
15. Over 3 phases during the next decade, the program will ensure ARFFS continue to provide reliable and resilient aviation fire fighting services for Australia. The works are also designed to meet future workforce commitments and improve people engagement.
16. Phase 1 will ensure stations that receive the first of the new ULFVs have capacity to store the larger fleet and are fit for purpose for the ARFFS workforce, with updated and modernised training facilities which can support the workforce increase required within the next 2 years to continue to meet regulatory requirements will also be built.
17. This submission is ‘Phase 1a’ in an expected series of Public Works Committee (PWC) submissions seeking approval for Phase 1 works as the requisite level of detail becomes available. This PWC submission covers regional North Queensland works included in Phase 1a of the ARFFS NexGen program to meet the critical facilities requirements.

18. Related works which have already been approved by the PWC for the Aviation Rescue Fire Fighting Station Uplift at Gold Coast Airport with an update to be provided to the Public Works Committee later this year on revised timeframes and costs for the project.
19. The remainder of Phase 1 works will be included in subsequent PWC submissions and will focus on completing the remaining facility upgrades in South-East Queensland, Northern New South Wales and Canberra to support transition to the new fleet and training facility modernisation. It will also include training initiatives to establish a new national hot fire training hub, upgrade the current Melbourne hot-fire training facilities, and support decommissioning of hot fire training grounds in Hobart and Adelaide.

Need for works

Need for works – ARFFS NexGen program

20. ARFFS operates at 27 of Australia's busiest airports to ensure the safety of people and property by responding swiftly to aircraft crashes, fires and other emergencies, including hazardous material incidents and medical situations. It also conducts fire prevention inspections and supports high-risk activities, such as aircraft refuelling, playing a crucial role in maintaining operational safety and compliance with international standards.
21. In the last 15 years, ARFFS has expanded their services to meet regulatory requirements as passenger numbers exceed 350,000 annually. This expansion has seen ARFFS move from a largely standalone station-centric model with dedicated modern assets, to a model that shares fleet, training and maintenance facilities with other stations in the region. This model reduces operational readiness and will not be feasible for ARFFS moving forward.
22. ARFFS NexGen program has been designed based on 4 key needs for the continued provision of ARFFS, including:

- **Fit-for-purpose assets**: Works are required to accommodate a new larger fleet and rebuild stations that have been damaged by severe weather events (i.e. Cairns' station was destroyed by flooding) or are facing end-of-life challenges.
    - The new fleet of ULFVs, equipped with 'high-reach extendable turrets' (HRETs), are larger and therefore require stations to undergo minor works to extend bay roller doors.
- **New facilities optimised for response rates** with a standardised design applied based on the category of the ARFFS station, accounting for projected workforce growth. These works are consistent with continued ARFFS business operations.

- **Environmental considerations**: The current ULFV fleet and hot-fire training grounds are nearing end of life with legacy technology not designed to prioritise environmental sustainability.
    - New ULFVs have the potential to accommodate a different class of foam that is more soluble and therefore may require less water for treatment during training drills
    - New and upgraded hot-fire training ground hubs will support a more environmentally sustainable method for training, including removing dark smoke emissions by using gas instead of kerosene to simulate fire drills.
- **Increasing demand:** The Bureau of Infrastructure and Transport Research Economics (BITRE) estimates that aircraft movements will increase by ~35% by 2030.
    - Facilities and vehicles will be upgraded as required to meet the increased demand, which places a higher imperative on assets to be fit for purpose.
    - Stations will be fitted to accommodate a reserve vehicle at each station, ensuring full capacity in the event of an emergency regardless of potential training or maintenance requirements on one of the ULFVs.
- **Increasing workforce:** A significant increase in the ARFFS fire fighting workforce will be required to meet the increased aircraft movements, placing greater demand on training. Melbourne Learning Academy (MLA) is currently at capacity and the remaining 8 shared HFTG hubs are varied in size and capability, with many facing end of life issues.
    - The future training model will deliver a small number of modern and reliable HFTG, with additional on-station cold drill grounds with no fire or foam activity that will support operational capability of the workforce and overall increase in training demand.

Need for works – Phase 1a works

23. Phase 1a of the works, covered in this submission, ensures the first instalment of new fleet vehicles can be housed in fit-for-purpose infrastructure, including urgent facility upgrades and rebuilds, and cold drill grounds to meet training requirements. Where possible, works have been grouped to minimise disruption or double handling at locations.

24. Works included in Phase 1a have been chosen based on consideration of urgent facilities requirements and the scheduled fleet rollout:

- **Urgent facilities work**: Cairns, Rockhampton and Mackay stations require rebuilding to withstand extreme weather events, increase resilience and replace end-of-life assets.

- **Scheduled fleet rollout:** Queensland will be the first to receive new ULFVs and therefore require minor works to accommodate larger vehicles.

Options considered

25. When considering what the ARFFS NexGen program would look like, 3 potential pathways were developed. These varied according to the type of vehicles (HRET enablement), number of vehicles procured (reserve sharing model), and number of maintenance hubs and training models (number of HFTG hubs nationally, and design of cold drill grounds).

26. Of these 3 pathways, the Airservices Board approved an option in October 2024, which included the following over time:

- **Fit-for-purpose fire stations:** 10 rebuilt stations (including airport masterplan changes at Mackay, Hobart, Launceston, Sydney and Cairns); new satellite stations at Perth and Melbourne to service new parallel runways; 29 dedicated cold drill grounds (17 new, 12 repurposed), pending airport approvals; and minor works to accommodate a new ULFV fleet.
- **A new ULFV fleet, equipped with HRET**: All stations will receive new HRET-enabled fleet, including a dedicated reserve vehicle.
- **3 large-scale maintenance hubs:** Facilities in Melbourne, Brisbane and Perth will be upgraded for large-scale maintenance and fleet repairs.
- **3 new hot fire training grounds:** HFTGs in Melbourne, Perth, and Queensland, complemented by an existing HFTG at Western Sydney International Airport.

27. Phase 1a options for facilities works for consideration by the Public Works Committee in this submission focuses on station works in regional North Queensland and are limited to an all or nothing decision.

Option 1: Do nothing

28. This option is not acceptable as it creates an enterprise risk. This option may result in being unable to meet regulatory requirements to provide critical fire fighting support services to Airports within Australia for following reasons:

- Existing stations in regional North Queensland are not resilient to extreme weather conditions, do not support operational readiness with on-site training facilities, and reduce workforce engagement.

- Without minor works stations cannot accommodate new ULFVs, leading to improper care of the investment in new vehicle rollout.

Option 2: All works (preferred option)

29. The preferred option supports proposed works for Phase 1a, which addresses the needs for works outlined in the above section of this submission.

30. The proposed Phase 1a works include:

    - rebuilding 3 end-of-life fire stations (Cairns, Mackay, and Rockhampton), maintaining, and repositioning fire stations in accordance with Airport Master Plans
    - implementing a new training model that supports cost-efficiency and environmental sustainability:
        - Decommissioning 1 old HFTG at Cairns Airport, with potential inclusion of per-and polyfluoroalkyl Substances (PFAS) remediation as required in accordance with business practices
        - Building cold drill grounds at 5 airports (Cairns, Mackay, Rockhampton, Gladstone, and Sunshine Coast).
    - completing minor works to tender bays at Gladstone, Sunshine Coast, and the Melbourne Learning Academy to ensure stations can accommodate modern Commercial Off the Shelf (COTS) ULFVs, rather than modifying ULFVs to fit legacy stations.

31. Note that addressing or remediating additional identified PFAS contamination will be coordinated with these activities where practical and will be the subject of subsequent PWC submissions.

Scope of works

32. There are 3 main work types that will be completed as part of Phase 1a NexGen: major works, training works for cold drill grounds, and minor works.

33. Future phases of ARFFS NexGen works and PFAS remediation works will return for Parliamentary approval prior to construction works under separate PWC submissions.

34. As outlined in Stakeholder engagement, Airports will continue to be consulted and engaged prior to and during works at the respective sites.

Major Works

35. Major works will occur to rebuild Cairns, Rockhampton and Mackay stations. The locations of rebuilt stations have been determined, in collaboration with Airbiz as an independent advisor, and have been chosen to:

    - Ensure a response time of 3 minutes from the site to either end of airport runway(s), in keeping with regulatory requirements
    - Ensure Fire Control Centre (FCC) visual requirements can be met
    - Consider relevant zoning of the site in conjunction with relevant Airport Master Plans
    - Consider whether power, water and sewer services already exist on site, and establishing these services if they're non-existent.

36. All Phase 1a station rebuilds are for Category 8 services, which will have a modular design (see Figure 1), enabling significant construction to be completed prior to on-site installation.

37. All rooms and spaces will be designed to meet the National Construction Code (NCC) and all applicable Australian Standards (AS1428.2) and CASA regulations; and satisfy the Concept Design, the Statement of Requirement, the Functional Performance Specification suite and all Airservices furnished documents. Airservices ARFFS standardised design room data sheets for a Category 8 Module design have been included as an attachment to this submission and outline the parameters for the modular design.

38. The stations will include the following areas as outlined in the floor plan at Figure 1:

    - Office space to accommodate ARFFS crew, training, meeting and stand down rooms

- Kitchen, gymnasium, dormitory, storage, laundry and amenities lockers and gender-neutral amenities
- Personal protective equipment (PPE), breathing apparatus rooms
- Communications rooms
- Vehicle maintenance area for onsite Emergency Vehicle Technician (EVT) capability
- Large tender bays to accommodate ULFV equipped with HRETs
- Fire Control Centre

Figure 1: Category 8 single level overall floorplan (additional design drawings in appendix)

Training works

39. Phase 1a focuses on cold drill grounds at Cairns, Mackay, Rockhampton, Gladstone, and Sunshine Coast ARFFS stations, that will support in meeting Civil Aviation Safety Regulations 1998 and Manual of Standards Part 139H alongside HFTGs.

40. Having a cold drill ground at every station will improve the employee value proposition, providing a readily available area for ad-hoc drill training on-station without requiring downgrade service categorisation, in breach of the regulatory obligations. Because cold drill grounds do not use hot fire or foam, they do not produce smoke in the community.

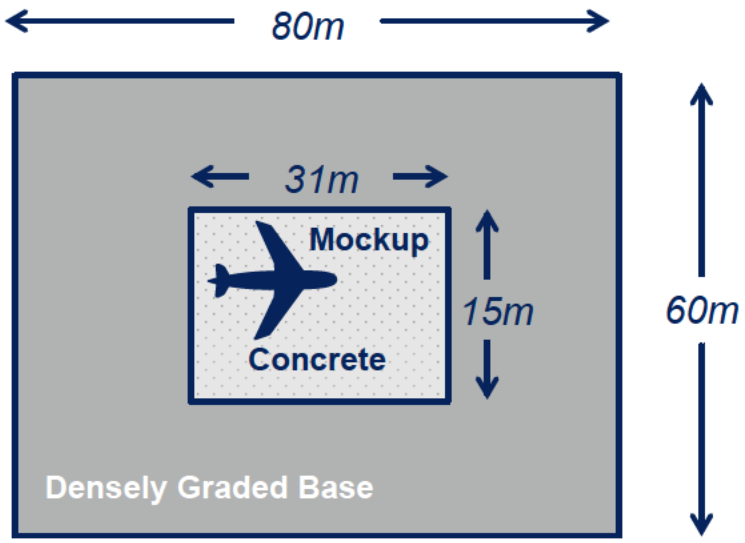
41. The cold drill grounds will have a standard design with capability for regulatory training that does not require hot fire or foam. The cold drill ground will include:

    - An aircraft fire simulator (a smaller mock-up of an aircraft fuselage made of shipping container material, which is used to simulate fire fighting and rescue from an aircraft)
    - A concrete motor vehicle pad
    - A densely graded base for overall training

42. The fuselage will be placed to the side of concrete that allows for tactical positioning of vehicles and application of extinguishing agents (see Figure 2).

43. The size of the cold drill ground area will be station-dependent, with a maximum of 100x100m, however Figure 2 provides an indicative not-to-scale visual of the layout.

Figure 2: Cold drill ground design



Minor works

44. Minor station works are required to accommodate the larger size of the new fleet in current tender bays. Phase 1a tender bay refits will be required for Gladstone, Sunshine Coast, and the Melbourne Learning Academy.

45. Jacobs Group were engaged to undertake site assessments for minor works and have identified potential refit work inclusive of:

    - Removal of roller door and frames
    - Modification to roller doors and supporting frame
    - Installation of new door motors
    - Roof modifications

46. The tender bay refits have been designed in consultation with Jacobs Group and 2 potential fleet suppliers as part of the procurement process. The works will be modified as required to meet location-specific needs.

47. Minor works will largely address the external garage features to accommodate the height and length of the new fleet. The internal garage space will not require modification.

Site selection

48. Phase 1a facilities work will take place at ARFFS stations across Australia, as indicated in Figure 3 below.

Figure 3: Map of Phase 1a location

Table 1: Summary of Work Type by location for Phase 1a

	Major works	Decomm. HFTG	Training		Minor Works
Location	*Station rebuilds*	*Current scope*	*HFTG*	*Drill ground*	*Upgrades (tender bays)*
Cairns	Yes	Yes		Yes	
Mackay	Yes	*Future works*		Yes	
Rockhampton	Yes	*Phase 1b*		Yes	
Gladstone				Yes	Yes
Sunshine Coast				Yes	Yes
MEL Training			*Phase 1b*		Yes

49. Items identified as future or works will be funded separately and return for Parliamentary approval prior to construction works, when sufficient site analysis is undertaken for a defined scope. Items identified as Phase 1b works have funding approval and part of future submissions, these are non-exhaustive of potential Phase 1b works.

50. The following points outline the scope of work to be complete across each site - as a 'Work Element'.

Work Element 1 – Rebuild of Cairns ARFFS Station

51. Cairns station will be rebuilt on the previous site location (Figure 4). The modular facilities will be installed on 2.3 metre piles for resilience to future extreme weather events, with sufficient space beneath the facility for parking of site management vehicles.

Figure 4: Aerial map of Proposed Cairns ARFFS station location

52. A cold drill ground will replace the currently offline HFTG, with the proposed location identified in Figure 5, at the current Cairns site per design specifications outlined in Figure 2.

Figure 5: Proposed location of Cairns cold drill ground

53. Management and remediation of any identified PFAS contamination of the replaced Cairns station and HFTG will be undertaken as part of the planned Cairns station rebuild works in accordance with Airservices standard business practices for handling PFAS as outlined in paragraph 90.

Work Element 2 – Rebuild of Rockhampton ARFFS Station

54. Rockhampton station will be built on a new site on the Airport (See Figure 6 for proposed location). The modular design per Figure 1 will be installed on concrete foundations laid at the new location, while operational workforce continues to work out of the current station.

55. Rockhampton's operational workforce will then transition to the new site and the old facilities will be demolished in accordance with standard procedures, outlined in paragraph 90.

Figure 6: Aerial map of Rockhampton ARFFS station location

- Rockhampton's operational workforce will also have access to a new cold drill training ground per design specifications outlined in Figure 2, with the proposed location identified in Figure 7.

Figure 7: Rockhampton Cold drill ground

Work Element 3 – Rebuild of Mackay ARFFS Station

56. Mackay station will be built at a new site location on airport land, with proposed location per Figure 8. The modular design per Figure 1 will be installed on concrete foundations laid at the new location, while the operational workforce continues to work out of the current station.

57. Operational workforce will then transition to the new site and the old facilities will be demolished in accordance with key legislation set out in paragraph 77 and civil works in line with paragraph 90. Demolition of these facilities will be undertaken as a separate scope of work.

Figure 8: Aerial map of Mackay ARFFS station location

58. Mackay's operational workforce will also have access to a new cold drill ground per design specifications outlined in Figure 2.

59. This cold drill ground location for Mackay is proposed to be located in close proximity to the new ARFFS station as shown in Figure 9, ensuring that response rates can be maintained from the training ground.

Figure 9: Proposed location of Mackay cold drill ground

Work Element 4 – Cold drill grounds

60. Phase 1a NexGen works will establish cold drill grounds at Gladstone and Sunshine Coast in accordance with the design at Figure 2, with proposed locations outlined in Figure 10 and Figure 11.

61. These work locations are in addition to the cold drill grounds being established at rebuilt stations in Cairns, Rockhampton and Mackay (as discussed in Work Elements 1-3).

Figure 10: Proposed location of Gladstone cold drill ground

Figure 11: Proposed location of Sunshine Coast cold drill ground

Work Element 5 – Minor works

62. Minor works will be required to accommodate the transition to larger ULFVs for North Queensland stations aligned with regional work for Phase 1a of ARFFS NexGen Program.

    - Tender bay upgrades are therefore proposed at Gladstone, and Sunshine Coast.
    - Additional minor works for 2 tender bay upgrades at Melbourne Learning Academy have been prioritised for recruits to train in the new vehicles.

63. Jacobs Group have provided an indicative view of the works specific to each site outlined in Table 2.

Table 2: Site-specific scope of Minor Works

Site	Facility type	Civil works	Front roller shutters	Rear roller shutters	Roof modifications
Gladstone	Station	No	2 x 400mm lift	N/A	N/A
Gladstone	EVT Workshop	No	1 x 380mm lift	N/A	N/A
Gladstone	Replenishment Bay	N/A	N/A	N/A	Raise approx. 2m
Sunshine Coast	Station	No	N/A	N/A	N/A
Sunshine Coast	EVT workshop	No	N/A	N/A	N/A
Melbourne	Learning Academy	Yes	4 x 800mm lift	N/A	N/A
Melbourne	EVT Workshop	Yes	N/A	N/A	N/A

Planning and design concepts

64. The planning and design considerations for station rebuilds at Cairns, Rockhampton and Mackay include:

- Meeting a design life of 25 years for operational areas
- Complying with relevant government legislation, building codes and standards in relation to energy use and management, stormwater management, water conservation and water recycling, and environmental sustainability
- Compliance with the Building Code of Australia (BCA) importance level 4 (with regards to earthquake and wind loads)
- Accommodation layouts to meet all relevant work health and safety standards, Airservices' office accommodation guidelines, inclusive workplace standards and the Civil Aviation Safety Authority (CASA) operational requirements
- Functional requirements of the facilities and infrastructure
- Security requirements
- Whole-of-life cycle cost and value for money requirements.

Childcare provisions

65. The proposed works are within the airside restricted area and as such there is no provision for childcare facilities on site as part of the project.

Fire protection and security requirements

66. The ARFFS facility construction will include the installation of fire detection, fire suppression and portable fire fighting equipment and extinguishing systems to comply with National Construction Code (NCC) and Australian Standards requirements.

67. The ARFFS construction will include the following fire systems designed as required to meet the National Construction Code (NCC) and Australian Standards:

- Inground fire mains around the ARFFS facility
- External fire hydrants located outside the ARFFS facility
- Fire tanks and pumps as main water supply for the hydrant system
- Water hydrant replenishment system (including tank and pump with 30 litres per second capacity to refill emergency fire service vehicles)
- Fire hose reels inside the ARFFS facility
- Smoke detection and alarm system
- Multi-Aspirating Smoke Detection Systems (MASDS) for critical rooms of the facility
- Emergency Warning and Intercommunication System (EWIS).

68. Storage tanks for fire fighting agent will be designed and constructed to comply with the regulatory requirement for a minimum of 200 per cent reserve of fire fighting foam and dry chemical powder to be stored on site.

69. The ARFFS station will be designed with firewall separation between different Building Code of Australia (BCA) building classification functions and the fire resistance of all structures will comply with National Construction Code (NCC) requirements.

70. The facility will be constructed to align with the requirements of the Australian Government's Protective Security Policy Framework (PSPF) and Information Security Manuals (ISM) security standards.

71. Each building that houses or supports navigation equipment will comply with the National Construction Code (NCC) and Australian Standards requirements for fire containment.

Workplace health and safety measures

72. The project and facilities will comply with Airservices safety management systems and workplace health and safety policies and procedures as well as the Work Health and Safety

Act 2011 and Work Health and Safety Regulations 2011 (Cth) and the relevant Codes of Practice.

73. Project safety and work health and safety specialists within Airservices will undertake work health and safety, and program safety assessments to identify and correctly manage all impacts.

74. In accordance with the Federal Safety Commissioner Act 2022, the builder for the facility will be required to be an accredited builder under the Work, Health and Safety (WHS) accreditation scheme.

75. The construction site will be within the airside restricted area and will be appropriately secured to prevent unauthorised access. No public safety risks have been identified.

Other issues

Key legislation

76. The following key legislation is applicable to this project:

- Airports Act 1996
- Airports (Building Control) Regulations 1996
- Airports (Environmental Protection) Regulations 1997
- Air Services Act 1995
- Aviation Transport Security Act 2004
- Building and Construction Industry (Improving Productivity) Act 2017
- Civil Aviation Act 1988
- Civil Aviation Safety Regulations 1998
- Disability Discrimination Act 1992
- Environment Protection and Biodiversity Conservation Act (EPBC Act) 1999 and Regulations 2000
- Environmental Management and Pollution Control (Waste Management) Regulations 2020
- National Environment Protection (Movement of Controlled Wastes between States and Territories) Measure
- State Legislation, as it relates to off-airport disposal of PFAS impacted soil and importation of clean-fill particularly the QLD Environment Protection Act 1994
- Fair Work Act 2009
- Work Health and Safety Act 2011

77. The works will be undertaken in accordance with relevant Australian Standards and codes of practice including but not limited to:

- Australian Standard AS 4482.1, Guide to the Sampling and Investigation of Potentially Contaminated Soil Part 1: Non-volatile and Semi-volatile Compounds
- Australian Standard AS4482.2, Guide to the sampling and investigation of potentially contaminated soil. Part 2: Volatile Substances
- Department of Environment, Tourism, Science and Innovation, Model operating conditions (2017), ERA 60 – Waste disposal ESR/2015/1667, Version 5.02, 8 October 2019,
- Department of Environment, Tourism, Science and Innovation (2020), Guideline:

Disposal permit to remove, treat and dispose contaminated soil ESR/2020/5353, Version 1.00, 24 June 2020,

- Environment Protection Agency Victoria (2024), Soil sampling for waste soils, Publication 702.2, IWRG702, 17 May 2024.

78. The project will be consistent with applicable standards, codes and guidelines, the relevant Airport Master Plans for each airport site listed in this document, airport environmental policies and landscaping and planting plans.

Heritage and geographical considerations

79. A search of State and Commonwealth Government heritage database and registers were completed for all sites, with the aid of information from Airport Master Plans where available. None of the immediate work site have known heritage significance.

80. Search results have been documented in a register for awareness purposes. Controls will be implemented during construction and operation to safeguard environmental and heritage values.

81. The works are not expected to impact the cultural and other heritage values as works are situated within a commercial/industrial setting within airport boundaries.

82. Indigenous heritage is not likely to be impacted unless there are ground disturbance works planned. Where this is the case, the Commonwealth, State and Local Government heritage database and registers is to be consulted as well as airport planning documents.

83. A Heritage Management Plan (HMP) will be completed for each of these sites and will be consulted prior to works commencing on these sites. This plan specifies management actions required to be undertaken during the execution of the project to preserve heritage sensitive areas/items or sites, including a program of pre-works test pitting and an Unanticipated Discovery Plan to be followed during the works.

84. The scope of the project activities will be in accordance with the Heritage Management Plan to ensure the heritage values of the sites are not adversely impacted.

Environmental impact assessments

85. Airservices' on-ground developments and operations on federally leased airports are required to comply with the Airports Act 1996, Airports (Environment Protection) Regulations 1997 and

Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act). The legislation sets out the environmental direction and targets for activities including reducing energy and water consumption, reducing waste generation, preventing land contamination, conservation of heritage and biodiversity, ensuring good air quality, and environmentally sustainable design principles of buildings.

86. Self-Assessments under the EPBC Act have been completed against the Significant Impact Guidelines 1.1 and 1.2 for all works. The Self-Assessments do not indicate significant impacts on any matter protected under the Act are likely to occur as a result of the works. Airservices has determined that no Work Elements are required to be referred to the Minister for the Environment and Water under the EPBC Act.

87. Airservices operates under an Environmental Management System that aligns to the International Standard ISO 14001. The Project will be executed under appropriate environmental and heritage management plans commensurate with the scope of the Project.

88. Where soil disturbance is required or works are undertaken within or near a heritage area, all environmental matters including risks will be treated and captured in an Environmental Management Plan (EMP) or risk assessment with management controls.

89. PFAS and other potential contaminants may be encountered during civil works conducted as part of ARFFS NexGen development. Soil and demolition waste from decommissioned infrastructure will, where practical, be pre-tested in-situ to pre-determine the disposal fate of the material. Once excavated, material will be appropriately stockpiled and further characterised as necessary prior to lawful off-airport disposal according to relevant State EPA guidelines and environmental management procedures in place at the airports at which work is conducted.

Impact on local community

90. The works are not expected to have a significant impact on the local community at any of the locations discussed, as modified and new facilities are all on existing airport land.

91. During the construction stage of the major works, traffic impact will be mitigated through Traffic Management Plans established prior to works commencing.

92. The local community will be positively impacted by these works, through the reduction of dark smoke from training facilities.

Stakeholder consultation

93. A comprehensive consultation and engagement strategy has been managed across the organisation, including:

- operational workforce
- engineering, technical, and maintenance workforce
- ARFFS Standards team
- environment and sustainability team
- facilities and infrastructure team

94. External advice has been sought in the design phase of the ARFFS NexGen model:

- Airport corporations governing sites of affected works
- United Firefighters Union of Australia
- DAA International
- Ngamura Advisory

95. Airservices is consulting further with both internal and external stakeholders, including airport and appropriate government departments. Engagements undertaken to date include:

- Department of Finance
- Department of Infrastructure, Transport, Regional Development, Communications and the Arts
- Civil Aviation Safety Authority
- North Queensland Airport Corporation (Cairns airport, Mackay airport)
- Rockhampton Regional Council
- Gladstone Airport Corporation
- Sunshine Coast Council

Cost effectiveness and public value

Project cost and budget

96. The estimated cost of ARFFS NexGen Phase 1a infrastructure works for end-of-life facilities is $163.4m and was approved by the Airservices board in October 2024.

- The estimated cost is based on analysis of the concept design by the external design consultant's quantity surveyors (QS) as well as an independent QS who conducted a comparison with actual costs obtained from comparable projects. The estimate is at a P80 level of confidence and incorporates all construction and consultant costs, design fees, fit out costs, internal labour, travel and risk and contingency provision.
- A detailed cost breakdown is provided in the confidential cost estimate submitted separately in the confidential submission.

Project delivery method

97. All Airservices projects are managed in accordance with Airservices' Project, Program and Portfolio Management Framework, which is based on 4 project life-cycle stages: Start up, Define, Execute and Close. An independent 'gate' review is conducted at the end of each stage to ensure readiness to proceed to the next phase.

98. Airservices has appointed a Program Manager, Project Managers, and a program support team. To meet specific legislative and internal requirements, Airservices has developed management systems that comprise policies, procedures and accountabilities in the areas of safety management, systems engineering management, environmental management, operational management, risk management and financial management. All projects must comply with these management systems, which includes engaging resources from each specialist area to develop management plans, documents, validate and sign-off requirements, and approve final designs, work plans and other deliverables. Specific engineering roles within Airservices are delegated power under the Air Services Act and associated legislation to approve engineering requirements, design and commissioning readiness.

99. External resources include consultants during the planning phase for cost and design planning and specialised assessments. Independent consultants, including a quantity surveyor and principal design consultant, engineering reviewer have been engaged via a tender process. Their services include the requirements review and finalisation, concept design, schematic

design, detailed design, engineering review, cost management, assistance with the head contractor tender and award, and construction and defects liability phase services.

100. The works will be delivered by external contractors managed by Airservices' project managers.

Construction program and schedule

101. Subject to Parliamentary approval, Airservices expects to approach the market and engage a contractor as soon as possible, with works expected to occur between October 2025 – July 2027.

Public value

102. The work will provide fit-for-purpose infrastructure, equipment and facilities from which essential Aviation Rescue Fire Fighting services will be performed.

103. The ARFFS NexGen works will also provide public value by:

- Improving response times with new vehicles and upgraded, well-designed facilities
- Replacing kerosene with gas in new, modern HFTGs which will reduce dark smoke in urban locations, moving to clean sites and closing old HFTGs as soon as practicable
- Providing more jobs nationally by supporting the growing demand for ARFFS
- Provide airlines, their passengers and crew the safety of a modern rescue and fire fighting service equivalent to that received at large airports in peer countries internationally
- Strategically strengthen Australia's national assets for higher fidelity and skills competency in preparation for times of emergency.

Appendices

Appendix 1 - Category 8 Station Modular Design

Figure 12: Cat 8 Station – Single level Station Floor Plan

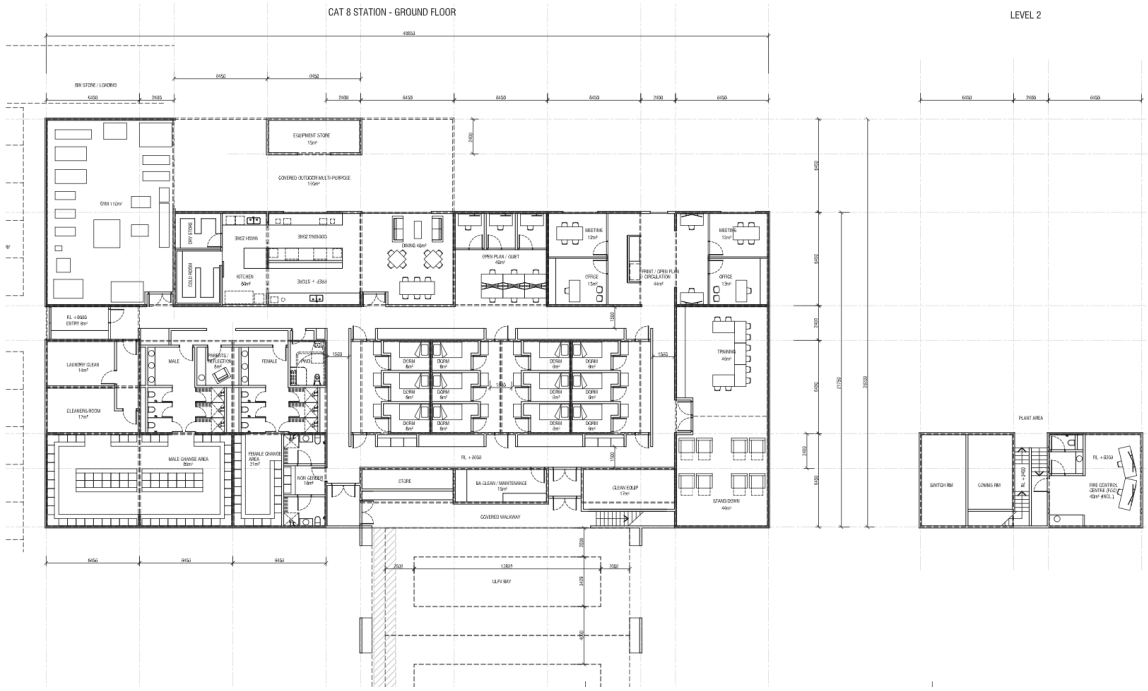


Figure 13: Cat 8 Station – Single level 'dirty' zone floor plan

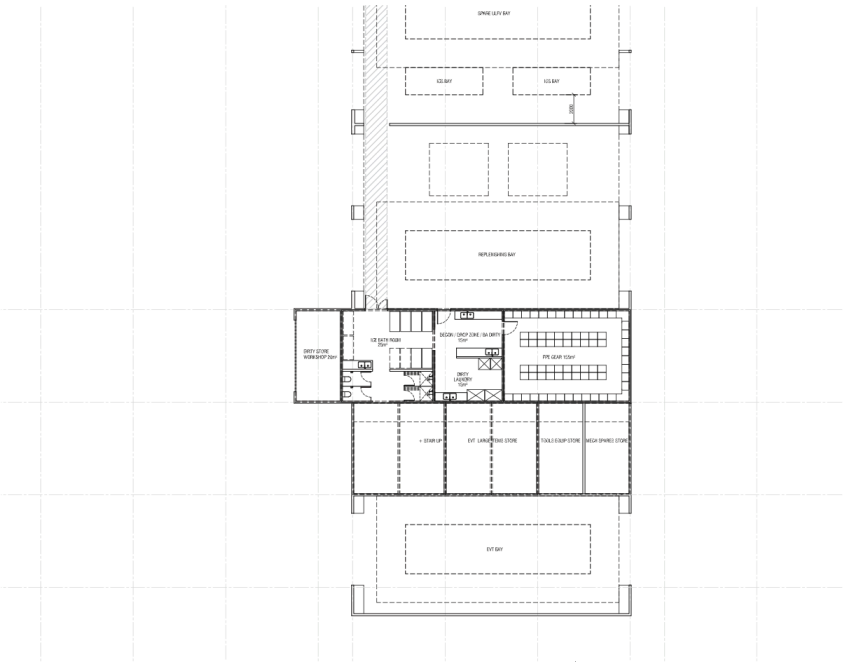


Figure 14: Cat 8 Station – Concept Perspective