Australian Government

Decommissioning of the National Research Cyclotron Facility, Camperdown

Statement of Evidence for the Parliamentary Standing Committee on Public Works

Submission 1.0

February 2026

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Executive Summary

The Australian Nuclear Science and Technology Organisation (**ANSTO**) is planning to decommission of its research facility in Camperdown NSW, known as the National Research Cyclotron Facility (**NRCF**). Located near the Royal Prince Alfred Hospital within the Sydney Local Health District (**SLHD**), the NRCF operated for 30 years until its permanent shutdown in 2021.

The decommissioning project arises from ANSTO's strategic shift toward researching new radiopharmaceuticals and producing nuclear medicines at its Lucas Heights campus in southern Sydney, leading to the cessation of operations at the NRCF. Under its lease obligations with SLHD, ANSTO must decommission and demolish the facility and return the site to SLHD prior to the lease expiry, in accordance with the agreed end-state requirements. The agreed end-state requires decommissioning and demolition of the building, removal of all radioactive material, and reinstatement of the site to a level grade with surrounding land compacted to a road base standard.

ANSTO has completed extensive investigations, including historical assessments, preliminary site surveys, and radiological characterisation. These confirm that residual radioactive material is confined to two concrete vault rooms within the NRCF, with no radiological hazards identified elsewhere in the building. A demolition contractor has been engaged to deliver detailed design and planning, reducing uncertainty ahead of the decommissioning licence application to the Australian Radiation Protection and Nuclear Safety Agency (**ARPANSA**). The project has also secured approval under the Environment Protection and Biodiversity Conservation Act 1999 (**EPBC Act**) with conditions for environmental management, monitoring, reporting and audit during demolition.

The project will be delivered in two phases:

Phase 1 - Planning- currently underway, covers detailed demolition design, site specific management plans, and preparation of the ARPANSA decommissioning licence application.

Phase 2 - Delivery- will only commence after ANSTO obtains ARPANSA approval and Parliamentary approval through the Public Works Committee process. This phase includes equipment removal, demolition of the building, waste management, and site restoration.

The project is expected to be completed by August 2029 and has an estimated total cost of $17 million (excluding GST). The project will be funded from appropriations received to support ANSTO decommissioning activities.

ANSTO has assessed potential impacts on the surrounding community and will implement mitigation measures including secure perimeter fencing, dust and noise controls, traffic management plans, and continuous engagement with SLHD and other stakeholders. No significant public safety risks have been identified, and radiological decommissioning activities will be conducted in accordance with ARPANSA requirements and ANSTO's certified environmental and safety management systems.

Upon completion, the site will be handed back to SLHD.

1. Introduction and Background

The Australian Nuclear Science and Technology Organisation (**ANSTO**) is one of Australia's largest research organisations and is responsible for the operation and management of landmark nuclear infrastructure and research facilities in Australia.

One of ANSTO's research facilities was the National Research Cyclotron Facility (**NRCF**) located in the inner Sydney suburb of Camperdown on land leased from Sydney Local Health District (**SLHD**). The NRCF commenced operations in 1991 as the National Medical Cyclotron to produce radioisotopes principally for medical purposes. Since 2021, key systems of the facility, such as the cyclotron, have been placed in a permanent shutdown state and staff redeployed to ANSTO's Lucas Heights campus.

Under ANSTO's lease with SLHD, ANSTO is required to decommission the facility, demolish the building, and return the site to SLHD to a pre-agreed end state. In order to decommission the facility, ANSTO must obtain a decommissioning licence from the national nuclear safety regulator, the Australian Radiation Protection and Nuclear Safety Agency (**ARPANSA**). The decommissioning process requires ANSTO to comply with ARPANSA's decommissioning requirements and the SLHD lease agreements end-state requirements.

ANSTO has commenced key preparatory activities for the decommissioning program. Approval under the *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**) has been granted, subject to conditions. A principal demolition contractor has also been engaged to undertake the planning and design for the proposed decommissioning and demolition works. These early milestones reduce project risk and support ANSTO's preparation of the decommissioning licence application to ARPANSA.

1.1. Purpose and Need for Works

1.1.1. Purpose of Works

In 2021, ANSTO made a strategic decision to commit resources for radioisotope production to the OPAL reactor at Lucas Heights. As a result, ANSTO ceased operations at the NRCF.

As part of ANSTO's lease obligations to SLHD, ANSTO is required to decommission the facility, demolish the building and return the site to compacted road base standard. ANSTO will also undertake radiological decontamination and removal works to a standard that meets the approval of ARPANSA, so that from a radiological perspective, the site will be available for unrestricted use.

1.1.2. Need for Works

The need for decommissioning stems from ANSTO's obligation under the lease agreement with SLHD to return the site to a condition that meets the agreed-upon criteria.

1.2. Facility Location and Surrounding Area

Camperdown is an inner suburb of Sydney with a mix of residential, commercial, and public utility areas. Figures 1, 2 and 3 show the location of the facility.

The NRCF is located at 81 Missenden Road, Camperdown, NSW and within the SLHD precinct between Professor Marie Bashir Centre, Queen Mary Building and the Naamuru Parent and Baby Unit as shown in Figure 2.

Figure 1: ANSTO Cyclotron Facility at 81 Missenden Rd Camperdown, NSW 2050 Australia

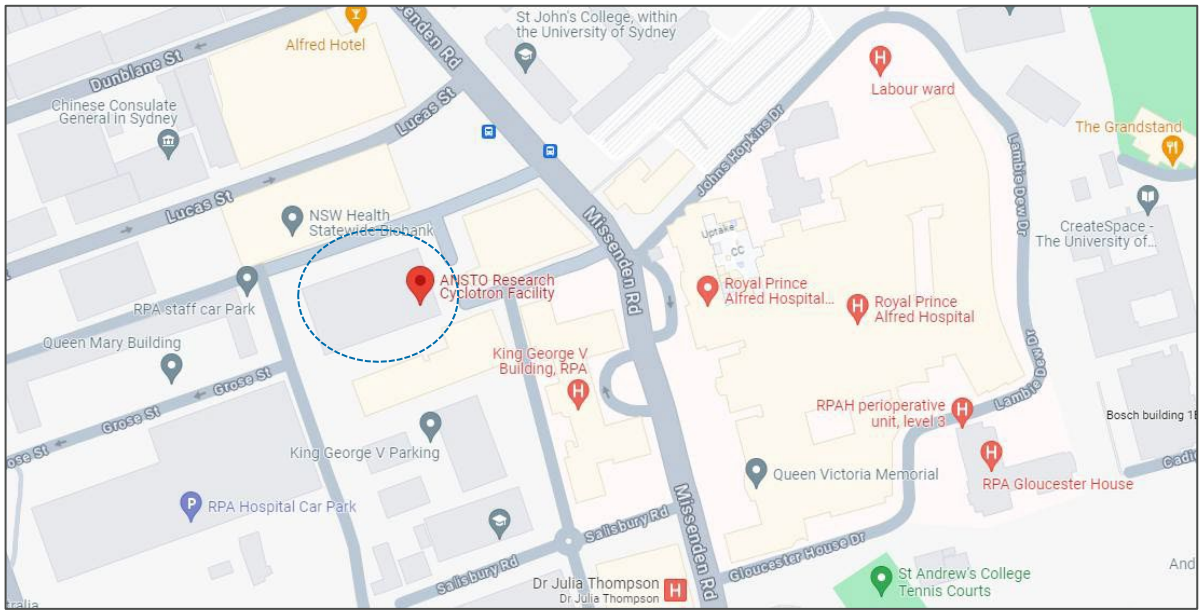
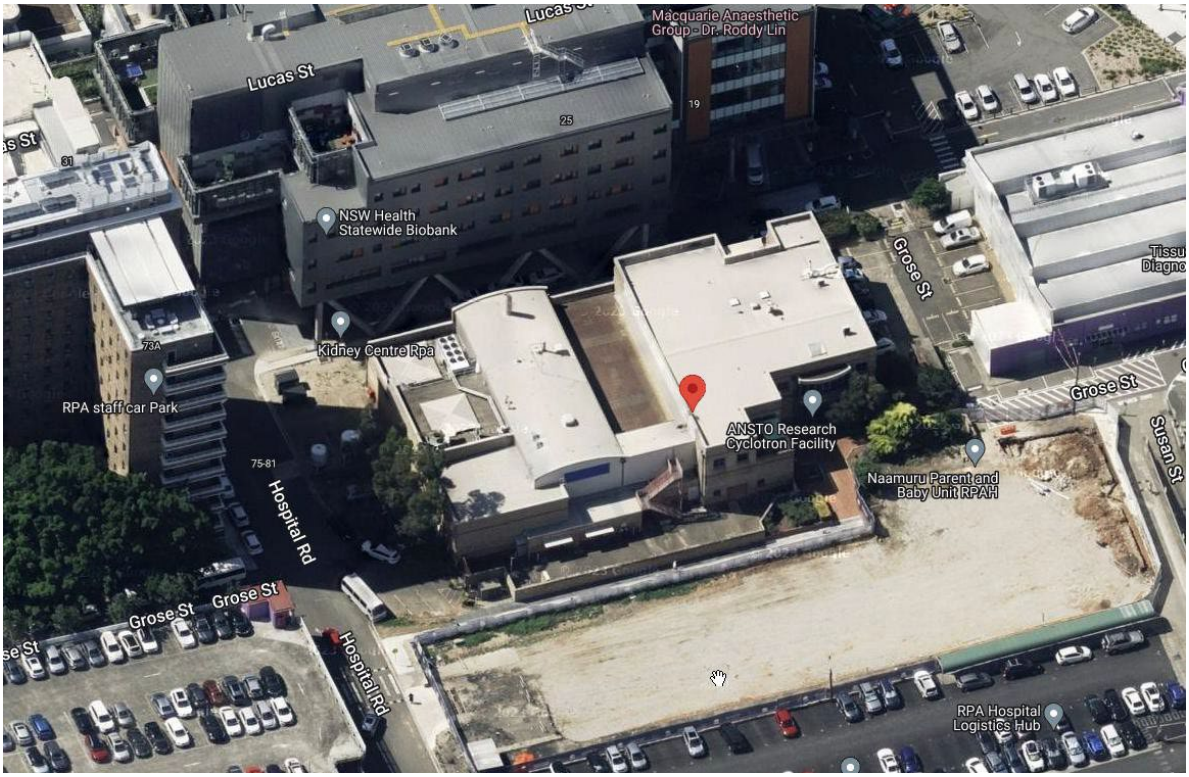
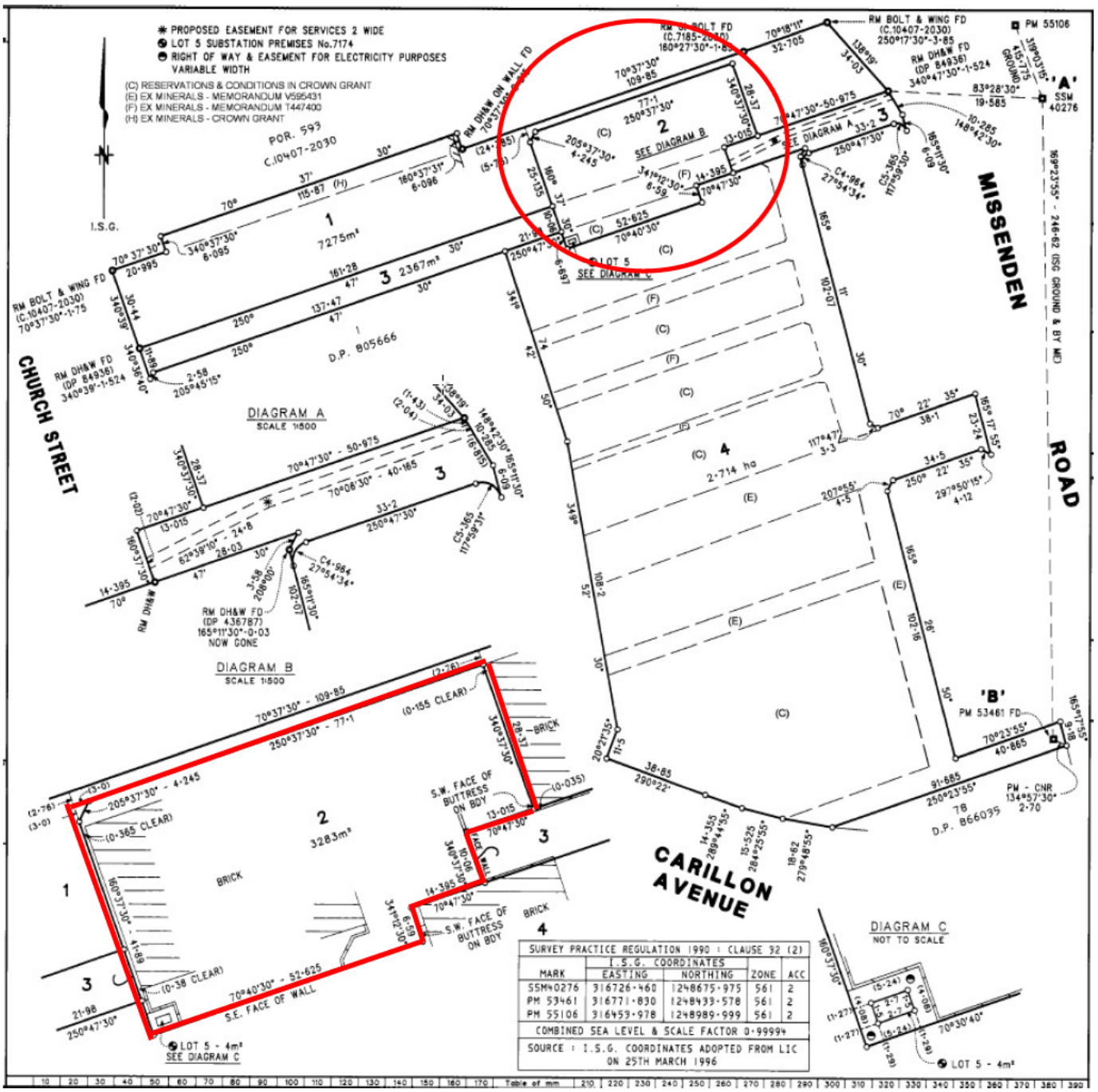


Figure 2: National Research Cyclotron facility (NRCF) Aerial View



ANSTO's National Research Cyclotron Facility occupies a designated area within a larger property. The larger area is referenced as Lot 101 in the deposited plan 1179349. Figure 3 shows the deposited plan 880430 which outlines the subdivision of Lot 101, with Lot 2 leased by ANSTO. This leased area is approximately 3300m^2. Refer to Figure 3 which illustrates the land leased by ANSTO.

Figure 3: Land leased by ANSTO on Lot 2 as shown in DP880430



1.3. Description of the Building

The facility comprises a two-storey brick building with a concrete basement. The ground floor contains laboratories, production areas formerly used for radiochemistry operations, workshops and four purpose-built concrete vaults.

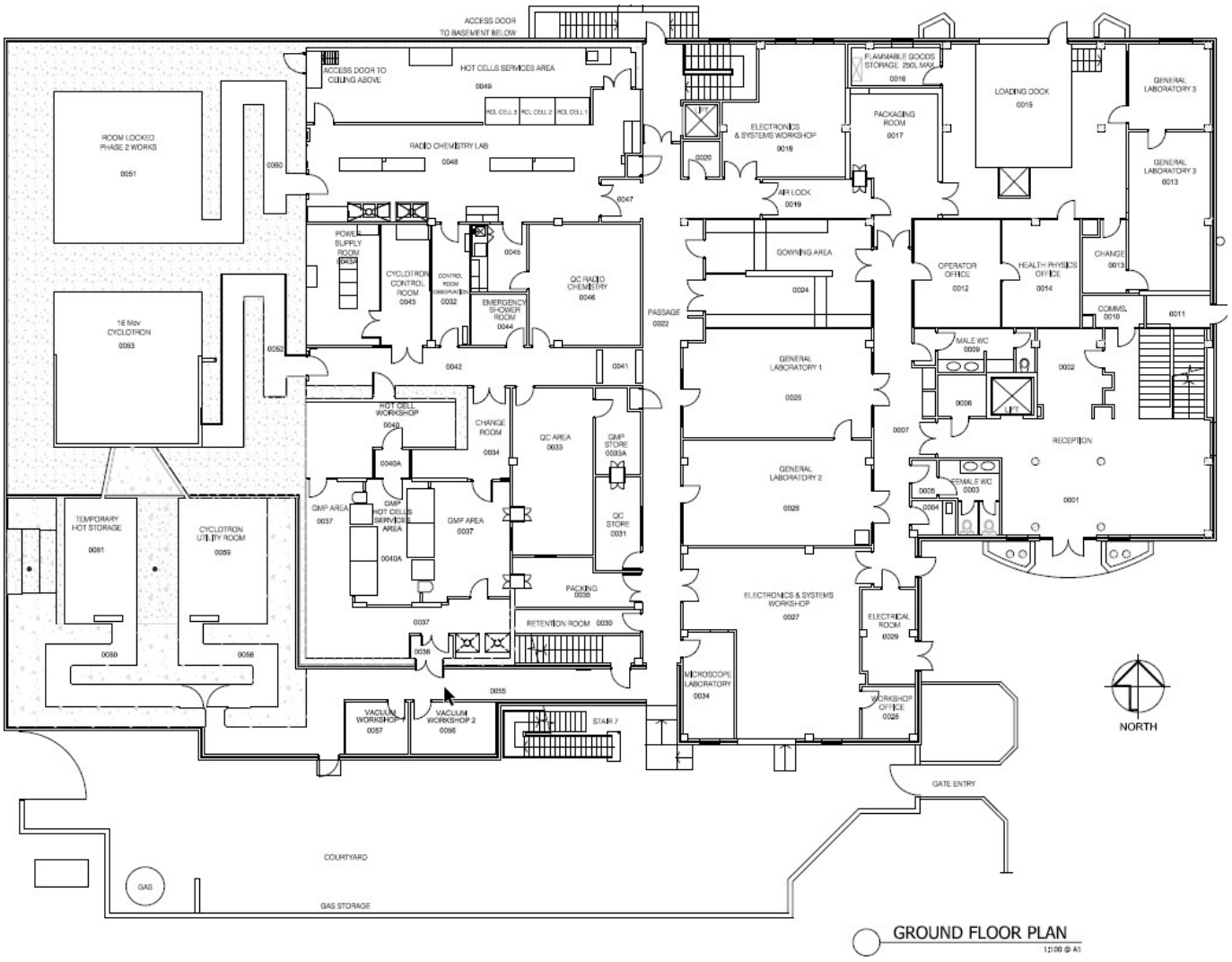
Plant equipment such as ventilation, hot water services, air handling units and filtration are housed on the first floor in Room Numbers 1040 and 1044. This floor also houses general office areas.

The Vaults

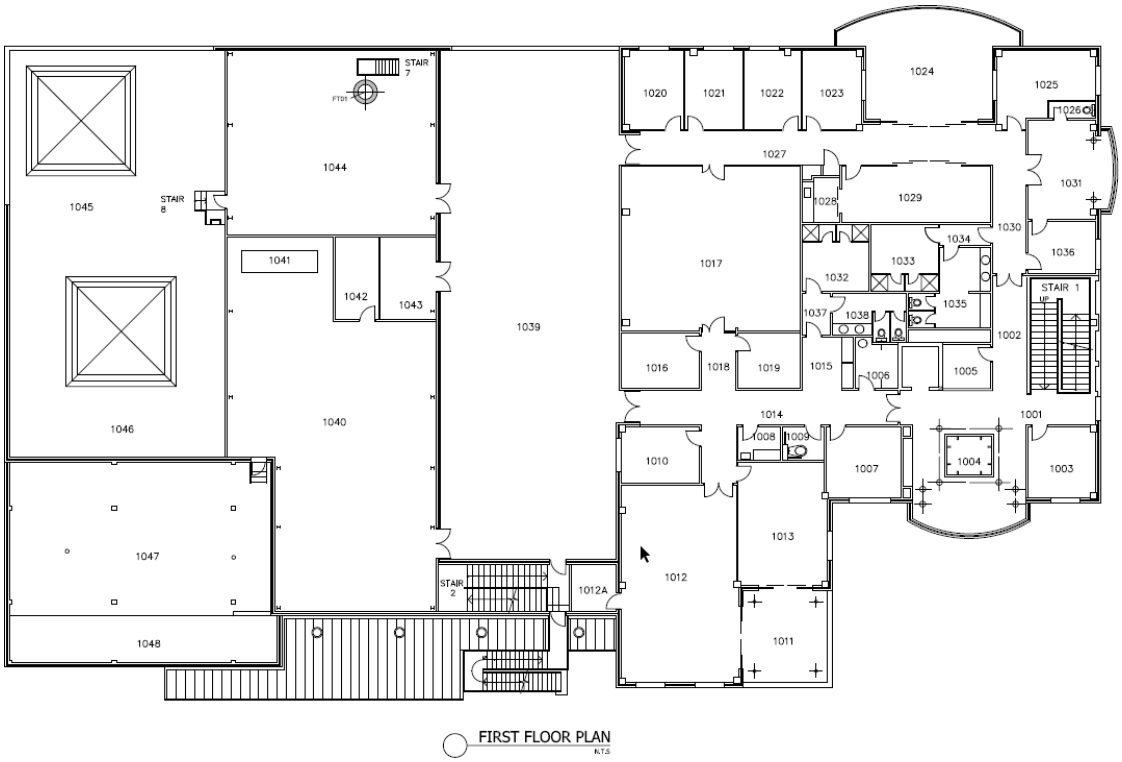
The vaults were designed to protect both operators and the public from the radiation hazards of the cyclotron. The concrete walls of the vault are 2.3 meters thick, while the roof is 1.8 meters thick and features a shielded roof plug. Additionally, the vault has a concrete slab floor that varies in thickness from 450 millimeters to 1000 millimeters, supported by concrete piers anchored into the earth below.

The layout of each floor is shown in Figures 4 to 6 below.

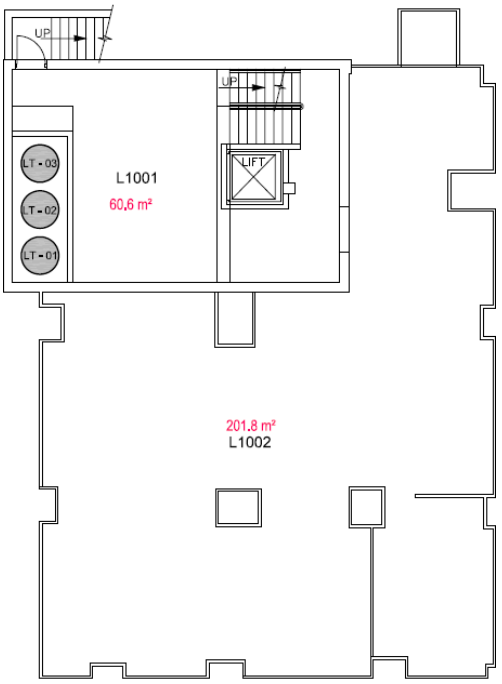
1.3.1. Figure 4 - Ground Floor



1.3.2. Figure 5 - First Floor



1.3.3. Figure 6 - Basement Floor



1.4. Site Surveys and Radiological Investigation

To identify suitable decommissioning options, ANSTO conducted a comprehensive site survey encompassing a historical site assessment (**HSA**), a preliminary site investigation (**PSI**), and characterisation of the facility.

1.4.1. Historical Site Assessment

The HSA documented the facility's history and past operations to identify any areas that might have been impacted by radioactive contamination and guide the subsequent scoping and characterisation of the facility.

1.4.2. Preliminary Site Investigation

Scoping surveys were conducted during the PSI to identify radiological impacted areas within the facility. The objective of these surveys was to provide information to perform hazard assessments, enable area classification based on new data, and provide input to the facility characterisation. The PSI determined that the primary radiological hazard was confined to the vault rooms and no residual radioactive material was expected to be found in any other areas of the facility.

1.4.3. Characterisation Report

The facility characterisation was undertaken in 2022. This involved extracting concrete core samples from the vault rooms and subsequent laboratory analysis. The data from the characterisation confirmed the primary radiological hazard originated from the radiologically activated concrete comprising the vault walls, floors, and ceilings.

2. Full Building Demolition

2.1. Requirement

Under its lease with SLHD, ANSTO is required to decommission and demolish the building, remove the slab to ground level and to remove all radioactive material arising from the decommissioning and demolition to a standard that enables ANSTO to surrender its decommissioning licence to ARPANSA.

2.2. Decommissioning and Demolition of the Facility

The main building will be demolished using standard methods, while the vault rooms will be dismantled using specialised techniques suitable for activated structures. The building will be demolished from east to west, preserving the foundation slab for site operations. Vault rooms 0051, 0053, 0059, and 0061, including the connecting maze, will be dismantled using approved methods to ensure effective separation of activated and non-activated concrete.

Appropriate safety measures will be employed throughout the demolition process, including dust control measures to protect workers, the public and the surrounding area. Activated concrete will be packed in IP1 bags and transported to an approved restricted waste facility. Non-activated concrete will then be tested, cleared, and disposed of at an approved facility.

3. Scope of Works

3.1. Project Scope

The project is divided into 2 phases.

3.1.1. Phase 1 - Planning Phase

Phase 1 is comprised of planning and demolition design activities to meet regulatory and safety requirements. These activities are being undertaken by the principal demolition contractor, which has been appointed to undertake the planning and design including the following tasks:

- Development of detailed Decommissioning & Demolition (**D&D**) design.
- Engineering plans and drawings.
- Development of site-specific management plans.
- Independent safety review.

Once this Phase has been completed, ANSTO will submit an application for a decommissioning licence to ARPANSA.

3.1.2. Phase 2 - Delivery Phase

Once ANSTO has received its decommissioning licence from ARPANSA, it will be able to proceed with the decommissioning and demolition Phase, which will include the following tasks:

- Commencement of the required regulatory submissions and approvals for the D&D works.
- Certified detailed designs.
- Site establishment and preparatory works.
- Removal of cyclotron and other equipment.
- Demolition of building & vaults including disposal/recycling of all waste.
- Bulk earthworks for reinstatement with clean soil to a level grade.

3.2. Planned Decommissioning Stages

A summary of the major D&D activities based on ANSTO's decommissioning plan is detailed below for reference. The steps and methodology are subject to change as may be required to achieve a regulatory condition or as required for approval, including where the demolition contractor identifies a safer or more suitable approach.

- Stage 1: Dismantling and removal of all equipment including:
    - The cyclotron and ancillary equipment.
    - Heating, ventilation, air conditioning systems and auxiliary equipment from the roof of the building.
    - All remaining equipment, furniture, and fittings in the building.
- Stage 2: Demolition site establishment and traffic management.
- Stage 3: Demolition of vaults.
- Stage 4: Demolition of building.
- Stage 5: Demolition of the remaining slab and basement.
- Stage 6: Radiological decontamination of the premises, reinstatement with clean fill to a level grade with the surrounding land.

3.3. Work Health and Safety (WHS) Measures

Project safety and WHS specialists will be engaged on the project to undertake assessments to ensure potential adverse effects are identified and correctly managed.

ANSTO is certified to ISO 45001 Occupational Health & Safety Standard and its WHS management system is aligned with international best practices. A WHS Management Plan will be prepared for the demolition phase prior to the commencement of any demolition activities. Given the facility's proximity to Royal Alfred Hospital buildings, the site will be appropriately secured to prevent public access, or access by unapproved personnel, during the demolition period. No significant public safety risks have been identified.

3.4. Fire Protection

All fire protection measures will comply with the provisions of the Building Code of Australia and other applicable codes and standards.

A fire detection and warning system will be incorporated into the demolition planning in a manner that accommodates the multiple stages of the decommissioning.

3.5. Environmental Sustainability

ANSTO maintains an Environmental Management System for environmental planning and management. This system is independently certified to the AS/NZS ISO 14001 Standard for Environmental Management Systems and is subject to internal and external audits to verify compliance with the external standard and internal requirements.

ANSTO is subject to the Ecologically Sustainable Development principles issued under the *Environment Protection and Biodiversity Conversation Act 1999* (Cth) (**EPBC Act**) and has received EPBC approval from the Department of Climate Change, Energy, the Environment and Water (**DCCEEW**) for the project.

Before commencing work on the facility, ANSTO will prepare a project/construction environmental management plan in accordance with internal environmental protection requirements, which will identify the potential adverse effects to the natural environment, including: to native fauna and flora; air pollution; water pollution, and propose the relevant appropriate mitigation measures.

This project will be within scope of the Commonwealth Government's Environmentally Sustainable Procurement Policy. This policy requires Government entities like ANSTO to establish a supplier environmental sustainability plan (**SESP**) with the Principal Contractor. The Principal Contractor will be required to report performance against the SESP to ANSTO every 6 months. ANSTO will evaluate the report against the SESP and submit to DCCEEW.

3.6. Security Measures

A security plan will be developed to specify protective measures to meet the identified threats to the security during the decommissioning of the facility. Key objectives are:

- To maintain a secure worksite protected from unauthorised entry
- To implement a system for the appropriate vetting and supervision of workers and visitors
- To effectively classify and control access to documents
- To continuously review threats and implement countermeasures throughout the various stages of the decommissioning process.

4. Project Execution Considerations

4.1. ANSTO Stakeholder Consultation

A Stakeholder and Communication Management Plan has been prepared by ANSTO, which will be approved and implemented in consultation with SLHD to ensure alignment. The purpose of the Plan is to define and document the approach and strategies to ensure active engagement and communication with its stakeholders and the community affected around the facility.

The project team recognises that effective engagement is crucial to reducing risks, minimising adverse social and environmental effects, whilst also seeking to achieve and secure regulatory and statutory approvals.

Table 1 identifies the key stakeholders of the project. ANSTO has engaged with SLHD in ongoing discussions as required in accordance with the lease, including via established joint working groups comprising a project coordination group and a communications working group. These forums support structured coordination, information sharing and community facing communications. ANSTO has also shared information relevant to the EPBC referral. As part of the EPBC process, ANSTO engaged with DCCEEW. Key regulators and agencies, including SafeWork NSW, Comcare, and ARPANSA, were provided with project briefs and facility walkthroughs outlining the proposed demolition methodology; with feedback used to inform project planning.

Further engagement will continue throughout project development to ensure alignment on relevant considerations.

Table 1: Key Program Stakeholders

Type	Stakeholder Organisation
The Commonwealth	a) Parliamentary Standing Committee on Public Works (PWC)
Regulatory, Industry Bodies and Interested Parties	a) Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) b) Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW) c) SafeWork NSW d) Transport NSW e) Comcare f) NSW EPA
Sydney Local Health District (SLHD)	a) Royal Prince Alfred (RPA) Hospital Buildings that include: - Professor Marie Bashir Centre, Kidney Centre RPA, Satellite Dialysis - Naamuru Parent and Baby Unit
Neighbours and Community	a) Sydney City Council b) Representatives from the Eora Nation c) Other close neighbours such as the University of Sydney student accommodation, restaurants, pubs, café

ANSTO Internal	a) Work Health and Safety b) Systems Safety and Reliability c) Procurement and Legal d) Security and Safeguards e) Waste Management Services f) Infrastructure and Engineering Services g) Government and Corporate Affairs h) Regulatory and Governance i) Finance and Operational Services j) Radiation Protection Advisors k) The Office of the CEO l) The ANSTO Board
Contractor	a) Principal Demolition Contractor b) Environmental site investigation contractor (including soil and groundwater)

4.2. Effects on the Community

ANSTO has conducted assessments to identify potential adverse local community effects and proposed suitable mitigation measures as follows:

4.2.1. Visual Effects

The demolition of the building will cause a temporary visual disruption due to its location and public visibility. To minimize this impact, the perimeter of the building will be secured with a construction hoarding and signage. This will not only enhance safety and security for the public but also help contain dust and debris within the demolition site, reducing the overall impact on the surrounding area.

4.2.2. Noise Effects

Demolition works will generate noise, with noise levels varying depending on the activity and equipment used. To minimize noise disruptions, a Noise Monitoring and Management Plan will be developed and implemented. This plan will address monitoring expectations and mitigation measures to reduce the noise.

4.2.3. Traffic, Transportation and Road Effects

During decommissioning and demolition works, there will be an increase in the number of large vehicles entering and exiting the site for material removal. The effects of this increase on the internal and external road networks will be mitigated through the development and implementation of a Traffic Management Plan. This plan will outline designated haul routes, signage, and traffic control measures to ensure safe and efficient movement of vehicles. Additionally, deliveries and material removal will be scheduled to avoid peak traffic times.

4.2.4. Relevant Local Facilities

There will be no effect on local facilities.

4.3. Environmental and Heritage Considerations

4.3.1. Environment

The demolition of the facility will result in short term, localised, small-scale impact to soils, air quality, flora and fauna, noise, visual amenity, and landscape. Management protocols by the principal demolition contractor will minimise any impact on surface runoff and erosion and mitigate any other environmental effects.

4.3.2. EPBC Approval

ANSTO submitted a referral under the EPBC Act in 2024. Approval has been granted for the decommissioning of the facility, subject to conditions relating to environmental management, monitoring, reporting and audit during demolition activities.

The conditions require the implementation of environmental management controls for known soil contamination, confirmation of groundwater conditions beneath the facility, and management of construction water, dust and erosion through an approved Construction Environmental Management Plan. Administrative conditions include notification of commencement and completion of works, ongoing compliance reporting, incident notification, and periodic independent audits.

Compliance with the EPBC approval conditions is being incorporated into project plans and cost estimates and is not expected to materially affect the demolition approach, scope or program.

4.3.3. Heritage

The facility has not been identified as having heritage significance. However, Camperdown as is home to heritage listed buildings in the area, these buildings will be safeguarded through the implementation of robust transport controls and dedicated routes to minimize any potential impact.

4.4. Quality Assurance

All procurements associated with this project will comply with the Commonwealth Procurement Rules, as well as ANSTO's internal procurement policies. ANSTO will apply its certified quality and environmental management systems, aligned with ISO 9001 and ISO 14001, to the management of the project, including incorporating relevant quality and environmental requirements into contractor arrangements.

4.5. Management of Project Responsibilities and Resources

The project will be governed under ANSTO's Project Management Policy and supported by the ANSTO Decommissioning Program Office.

ANSTO's Infrastructure and Engineering Services division will be responsible for the overall management of the project. A principal contractor has been engaged in accordance with the Commonwealth Procurement Rules to undertake Phase 1 activities, including the detailed design and planning for demolition. Phase 2 will cover the delivery of the actual demolition works, which may be undertaken by the same contractor.

4.6. Radiation Considerations

ANSTO is committed to minimizing radiation exposure during decommissioning activities. ANSTO follows the ALARA (as low as reasonably achievable) principle, as outlined in ARPANSA's Radiation Protection Series, which provides for taking all practical steps to reduce radiation exposure while considering economic and societal factors.

The Systems Safety and Reliability team and the Safety and Reliability Assurance team within ANSTO are specialists in radiological safety and systems and provide independent oversight of all safety and environmental risks and work to support the Infrastructure and Engineering Services project team.

ANSTO has a dedicated team of Radiation Protection Advisors (**RPAs**) who will work closely with the project team to ensure safe working practices and optimize radiation protection measures throughout

the decommissioning process. The RPAs will collaborate with Health Physics Surveyors to identify areas requiring radiation monitoring surveys and ensure adherence to relevant standards.

A comprehensive radiation protection plan will be developed, reviewed, and approved by ANSTO's Safety, Reliability, and Assurance department. This plan will outline specific measures to mitigate radiation risks, including regular radiological surveys of the site, personal and area dosimetry to monitor individual exposure, and adherence to relevant ARPANSA guidelines.

4.7. Risk Assessment

The project is subject to the risk management processes of ANSTO. It is ANSTO's policy that all major projects assess risks, identify risk owners, and develop action plans to mitigate identified risks. Risks for this project will also be assessed for their potential effect on budget, schedule, and performance. Risks are discussed on a regular basis at ANSTO project management meetings, and the ANSTO Capital Committee has an oversight role on ANSTO risk management. The Program Control Group also provides risk governance.

5. Cost-effectiveness and public value

5.1. Project Costs

The estimated cost of this project is $17 million, excluding GST. It will be funded from allocated appropriation which ANSTO has received annually since the 2019-20 MYEFO to support its decommissioning activities. It will be funded from allocated appropriation which ANSTO has received annually under MYEFO since the 2019-20 MYEFO to support its decommissioning activities."

This figure represents the full value of resources required to deliver the project, including both external cash expenditure and ANSTO's internal planning, management and oversight costs.

The external cash expenditure component includes regulatory approvals, decommissioning and removal of major equipment, building demolition costs, management and design fees, contingencies, and an escalation allowance.

The estimate is indicative and will be refined as detailed planning progresses. A detailed breakdown of the cost elements and confidence levels is provided in the confidential submission (Submission 1.1).

5.2. Project Delivery Method

5.2.1. Approach

To optimize project timelines and enhance the quality of the application for a decommissioning licence to ARPANSA, ANSTO has adopted a two-stage Early Contractor Involvement model. By engaging qualified contractors early in the project lifecycle, ANSTO anticipates streamlining the regulatory approval process and achieving significant project efficiencies.

The approach comprises a two-stage process. First an open approach-to-market with a Request for Expression of Interest to gauge interest from qualified companies. Then, the shortlisted respondents will be invited to submit detailed proposals in a subsequent Request for Tender (**RFT**).

ANSTO will enter separate contractual arrangements during the 2 phases described below:

- Phase 1: ANSTO has entered into a contractual arrangement for Phase 1. The selected contractor is developing a demolition plan for a fixed price. The contractor has also provided a non-binding price for the Phase 2 demolition work, with a pre-agreed mechanism to update and finalise this price.
- Phase 2: Upon successful completion of Phase 1, and subject to PWC approval, ANSTO may elect to proceed with demolition works with the same contractor under the pre-agreed contractual option. If ANSTO does not exercise this option, it may approach the market for Phase 2 under a new RFT.

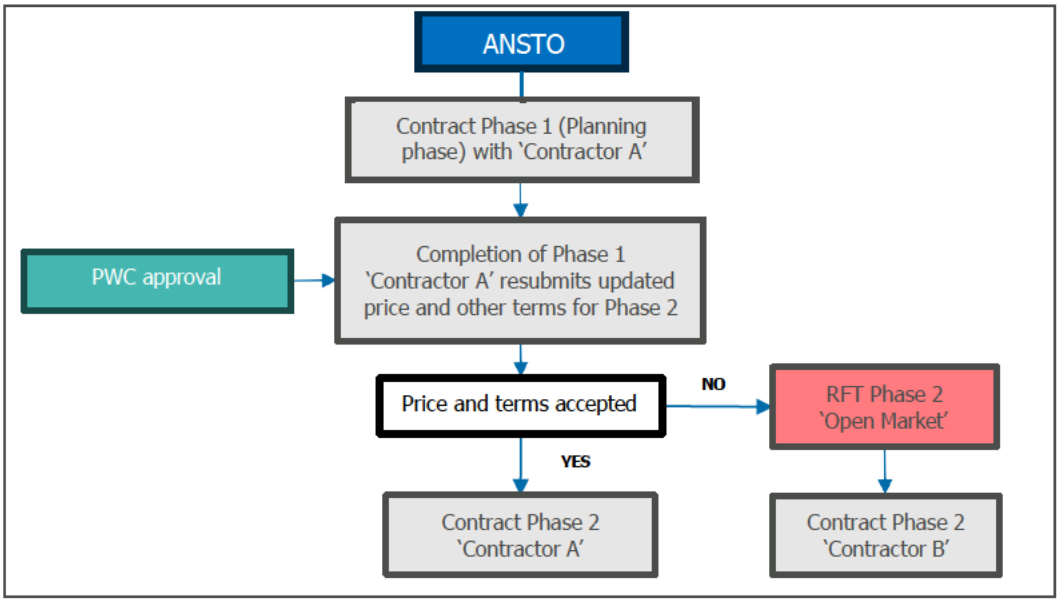
This two-stage approach facilitates early engagement and timely preparation of high-quality submissions for regulatory approvals, leading to more accurate cost estimates and expediting the overall project timeline. This method also provides flexibility for ANSTO by allowing for design, cost assessments and other pre-demolition activities in Phase 1 to be completed, before deciding whether to proceed with the Phase 2 demolition work using the same contractor. Figure 4 shows a summary of the contract structure.

5.2.2. Benefits

The reasons for selecting this method were:

- **Price certainty** – Greater cost certainty up front with the opportunity to identify cost savings collaboratively with the contractor.
- **Timely approval and delivery** – Provide an opportunity to obtain critical project approvals and appoint contractors early.
- **Market interest and capability** – Enables ANSTO to critically assess demolition contractor expertise for metropolitan areas.
- **Stakeholder engagement** – Ability to inform SLHD and the public with more detailed information in relation to traffic management around the site.

Figure 4: Contract Structure



5.3. Project Schedule

The project is constrained in schedule by regulatory approval processes and by the required completion date to hand over the site to SLHD before the lease expiry date. As shown in the program schedule below, demolition work cannot begin until ARPANSA grants a decommissioning licence.

As at the date of this submission, the project is scheduled to be completed by August 2029.

The overall schedule is summarised in the table below. The program will be updated following the Committee's inquiry, and subject to Parliamentary expediency, the current program anticipates the completion of milestones as follows:

Milestone	Anticipated Completion Date
EPBC referral submitted	Completed – Dec 24
Demolition Contractor for Phase 1 appointed	Completed – Oct 25
EPBC approval granted	Completed – Nov 25
Project referred to Public Works Committee	Mar 26
PWC hearing	Apr 26
PWC Expediency (tentative)	Sep 26
Submission of application for a decommissioning licence to ARPANSA	Sep 26
Right of ANSTO to engage Contractor for Phase 2 (noting if ANSTO chooses not to engage the Contractor for Phase 2, ANSTO may return to the market)	Oct 26
Hold Point – Approval of decommissioning licence application by ARPANSA	Aug 27
Demolition Commencement	Sep 27
Demolition Completion	Aug 28
Project Completion (post-demolition surveys, clearance reporting, independent safety review endorsement, and ARPANSA site release approval)	Aug 29

5.4. Revenue

This project will not directly deliver any revenue-generating assets or generate revenue.

5.5. Public Value

SLHD is one of the most densely populated Local Health Districts in NSW and is responsible for the health and wellbeing of more than 740,000 people living within the area. By ANSTO returning the land, SLHD will get the opportunity to use the land and provide a range of social and economic benefits for the community.

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