Australian Government
Australian Sports Commission

AIS Revitalisation Project

Statement of Evidence to the Parliamentary Standing Committee on Public Works

Prepared by
Australian Sports Commission
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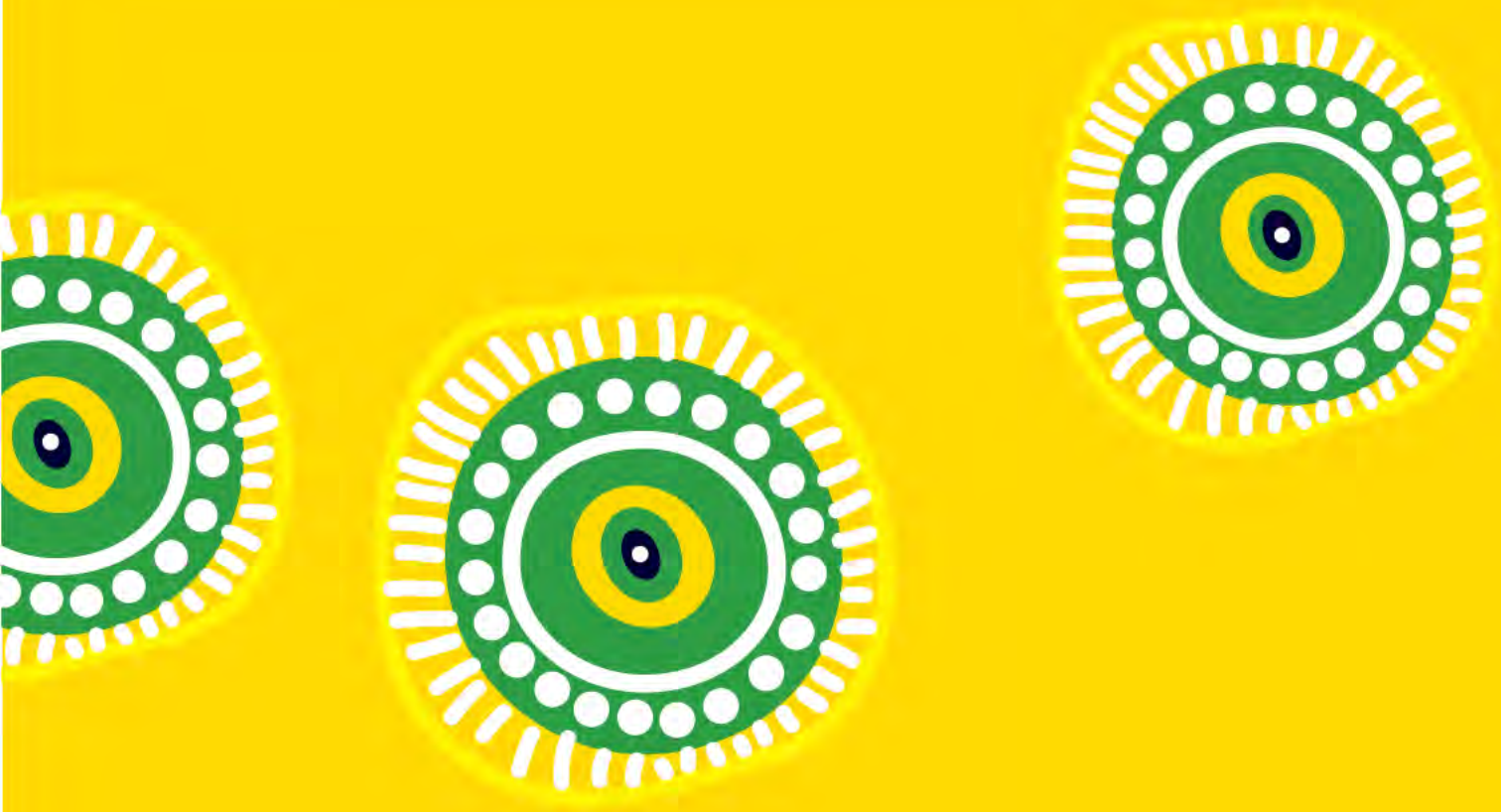

Australian Sports Commission Acknowledgement of Country

The Australian Sports Commission (ASC) acknowledges the Traditional Custodians of the lands where its offices are located, the Ngunnawal people and recognise any other people or families with connection to the lands of the ACT and region, the Wurundjeri Woi-wurrung people of the Kulin Nation, the people of the Yugambeh Nation and the Gadigal people of the Eora Nation.

The ASC extends this acknowledgment to all the Traditional Custodians of the lands and First Nations Peoples throughout Australia and would like to pay its respects to all Elders past, present and future.

The ASC recognises the outstanding contribution that Aboriginal and Torres Strait Islander peoples make to society and sport in Australia and celebrates the power of sport to promote reconciliation and reduce inequality.

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AIS Revitalisation Project

The purpose of this Statement of Evidence is to provide information to the Australian public to comment on, and the Parliamentary Standing Committee on Public Works to enquire into the works proposed under the AIS Revitalisation Project (the Project).

1. Executive Summary

1.1 Overview

The Australian Institute of Sport (AIS) Revitalisation Project (the Project) aims to enhance Australia's high-performance sports infrastructure in preparation for the Brisbane 2032 Olympic and Paralympic Games. The Project is driven by the recommendations of the January 2024 Independent Review of the AIS Infrastructure (AIS Review) and the 2024-25 Federal Budget allocation to deliver three new sports facilities at the AIS Campus in Bruce, ACT. The new facilities replace aging facilities and enhance the AIS's capabilities aligning with Australia's High Performance 2032+ "Win Well" Sport Strategy, focusing on sustainable success in high-performance sport.

1.2 Government Commitment

The Australian Government has committed $249.7 million (GST excl.) over three years from the FY2024-25 Budget toward the revitalisation of the AIS Campus in Bruce, Canberra.

1.3 Current AIS Facilities

The AIS Campus, established in 1981, has seen minimal upgrades over the past 40 years. It serves as a central hub for high-performance sports, providing accommodation, training facilities, recovery centre, and sports science services. The campus is integral to the "Win Well" strategy and supports nearly 4,000 individual athletes and staff annually.

1.4 Project Objectives

The Project aims to:

- Enhance the AIS Campus to support elite athletes;
- Align with the "Win Well" Sport Strategy for sustainable high-performance outcomes; and
- Ensure the AIS Campus remains a world-class facility for the Brisbane 2032 Olympic and Paralympic Games and beyond.

1.5 Key Recommendations

The Project will implement the following key recommendations from the AIS Review by developing:

- New Athletes' Village: A new multi-story, inclusive, and accessible athlete accommodation facility.
- Multi-Sports Dome: A new all-weather, indoor training facility with integrated testing and analysis capabilities.
- High-Performance Training and Testing Centre: A new facility incorporating applied sport science and sports medicine.

1.6 Conclusion

The AIS Revitalisation Project is a critical investment in Australia's high-performance sports infrastructure, ensuring the AIS Campus remains a world-class facility supporting elite athletes in the lead-up to the Brisbane 2032 Games and beyond.

The Australian Sports Commission (ASC) seeks approval from the Public Works Committee to proceed with the Project.

2. Project Title

AIS Revitalisation Project (the Project).

3. Australian Sports Commission

The Australian Sports Commission (ASC) was established in 1985 and is the Australian Government agency responsible for supporting and investing in sport across Australia.

The *Australian Sports Commission Act 1989* outlines the ASC's establishment, objects, functions, and power**.** The ASC operates in accordance with the *Public Governance, Performance and Accountability Act 2013*.

4. Context

4.1. Location of the Works

The ASC is seeking to develop the three new facilities that comprise the Project within the current AIS Campus in Bruce. The AIS Campus is located within Designated Areas under Section 10 of the *Australian Capital Territory (Planning and Land Management) Act 1988*.

As further discussed in Section 0 and illustrated in Figure 4, the three new facilities would be constructed at the northern end of the AIS Campus.

4.2. AIS Site Strategy Detailed Business Case

The Project aims to enhance Australia's high-performance sports infrastructure in preparation for the Brisbane 2032 Olympic and Paralympic Games.

The Project is driven by the recommendations of the January 2024 Independent Review of the AIS Infrastructure (AIS Review) (outlined below) and the 2024-25 Federal Budget allocation to deliver three new sports facilities at the AIS Campus in Bruce, ACT. The new facilities replace aging facilities and enhance the AIS's capabilities aligning with Australia's High Performance 2032+ "Win Well" Sport Strategy, focusing on sustainable success in high-performance sport.

4.3. Government Commitment

In response to the AIS Review, the Federal Government committed $249.7 million (GST excl.) over three years from FY2024–25 for the ASC to revitalise the AIS Campus with the development of a new Athletes' Village, a Multi Sports Dome and a new High Performance Training and Testing Centre (HPTTC).

4.4. Current AIS Facilities

The AIS Campus, established in 1981, has seen minimal upgrades over the past 40 years. It serves as a central hub for high-performance sports, providing accommodation, training facilities, recovery centres, and sports science services. The AIS campus is integral to the "Win Well" Sport Strategy and supports nearly 4,000 individual athletes and staff annually.

4.5. Project Objectives

The Project aims to:

- Enhance the AIS Campus to support elite athletes;
- Align with the "Win Well" Sport Strategy for sustainable high-performance outcomes; and
- Ensure the AIS Campus remains a world-class facility for the Brisbane 2032 Olympic and Paralympic Games and beyond.

4.6. Financial and Economic Analysis

The Project has a total capital cost estimate of $249.7 million (GST excl.). The financial analysis includes lifecycle costs, social impact evaluations, and alignment with government policies.

4.7. Role of the ASC and AIS

The role of the ASC is to increase involvement in sport and enable continued international sporting success through leadership and development of the sports sector, targeted financial support and the operation of the AIS located in Bruce, ACT. The ASC plays a critical and unique role in the Australian sport sector and provides leadership, expertise and support to enhance outcomes on the world stage.

As detailed further in Section 5.3, in 2023, the Government announced an independent review into the AIS infrastructure to help guide investment in sporting facilities to ensure the AIS can continue to best support Australia's high performance athletes. The AIS infrastructure has also been discussed in public hearings as part of the Senate Inquiry into Australia's preparedness to host Commonwealth, Olympic and Paralympic Games.

In January 2024, *A Fit for Purpose Australian Institute of Sport – An Independent Review* (the AIS Review) was presented to the Minister for Infrastructure, Transport, Regional Development and Local Government and the Minister for Minister for Aged Care and Sport (www.infrastructure.gov.au/sites/default/files/documents/a-fit-for-purpose-australian-institute-of-sport-an-independent-review.pdf).

A key recommendation of the AIS Review was for Commonwealth investment in the AIS to ensure it remains a world class institution able to fully support Australian athletes in the leadup to international sporting competitions, including the Brisbane 2032 Olympic and Paralympic Games.

In particular the AIS review recommended the development of a new Athletes' Village, a Multi Sports Dome and a new High Performance Training and Testing Centre.

4.8. AIS Review - Key Recommendations

The Project will implement the following key recommendations from the AIS Review by developing:

- New Athletes' Village: A new multi-story, inclusive, and accessible athlete accommodation facility.
- Multi-Sports Dome: A new all-weather, indoor training facility with integrated testing and analysis capabilities.
- High-Performance Training and Testing Centre: A new facility incorporating applied sport science and sports medicine.

5. Need for the Works

5.1. Purpose of the Works

It is recognised that, as part of the ASC, the AIS leads the delivery of Australia's high performance sport outcomes and is responsible and accountable for leading the delivery of Australia's international sporting success. The Government continues to support the delivery of the ASC's strategic vision that sport has a place for everyone and delivers results that make Australia proud.

To deliver on its strategic goals to lead and enable the world's best sport system, involve more Australians with sport at all levels, and drive innovation in sport, the high performance system needs a modern and fit for purpose AIS campus. Supporting athletes and sports with the right facilities, services, and expertise at the right time within an augmented Daily Training Environment (DTE).

The AIS Campus plays an essential part in the wider national sporting framework by providing expertise and high performance system leadership in athlete preparation, performance science and medicine, innovation, coach and leadership development, performance strategy and planning, pathway support and athlete career and education.

It has been recognised by the Government, as supported and recommended through the 2024 AIS Review (as further described in Section 5.3) and the 2024-25 Federal Budget funding allocation (as described in Section 5.5), that new facility and capability development is required for the AIS to deliver on its goals and Government's expectations.

In particular the AIS Review recommended:

- **A new Athletes' Village at Bruce**

  An Athletes' Village with an inclusive, accessible multi-story accommodation facility capable of housing up to 250 athletes, in various room configurations, that accommodate athletes and their families and or carers;

- **A Multi Sports Dome**

  A Multi Sports Dome to provide an all-weather, indoor training facility, with integrated facilities for testing and analysis; and

- **A new High-Performance Testing and Support Centre**

  A new High-Performance Testing and Support Centre that incorporates applied sport science and sports medicine and to accommodate a combination of sports including gymnastics and winter sports.

Current Challenges with AIS Campus Facilities

To perform its role in the national framework, the ASC needs access to world-leading testing and training facilities that are future focussed, agile, adaptable to advances in technology, provide a contemporary, integrated and inclusive work place and create a vibrant campus environment.

The current AIS Campus facilities cannot achieve these requirements. Most of the buildings were constructed between 1977 and 2008, with 16 facilities now greater than 30 years old. Consequently, the facilities are no longer aligned to strategy or of world leading quality and based on their current level of dilapidation are expensive to maintain. The existing spend on major and minor capital works, being significantly below industry standards, is inadequate

even to maintain facilities in their current condition let alone restore the campus to a world leading facility that meets the needs of current and future athletes, coaches and the industry.

The AIS Campus facilities have structural issues which pose potential Work, Health and Safety (WHS) risks that require ongoing management and are financially constraining in that they are:

- Old buildings with major structural and service related issues;
- Nearing the end of their useful life, requiring either major capital upgrades or complete replacement;
- Already incurring high maintenance and operating costs, that will continue to grow; and/or
- Are not capable of delivering on the "Win Well" Sports Strategy.

As a result, the aged assets present a high risk to the medium to long term viability of the ASC due to compromised service and training delivery, which negatively impacts the value proposition, the athlete experience and AIS and ASC brands. All of these issues will contribute to international reputational damage and put a strain on our ability to leverage sports diplomacy. This subsequently has a negative impact on the community's engagement with sport and participation levels.

Addressing the problems with the AIS Campus will enable the ASC to deliver on the Government's priorities across several policy areas, including the Department of Health and Aged Care policies and priorities as well as the Government's broader policies such as Australian Skills Guarantee Procurement Connected Policy, Environmentally Sustainable Procurement Policy, Payment Times Procurement Connected Policy, Indigenous Procurement Policy and the Workplace Gender Equality. It will also assist on the international stage by supporting the Government's Sports Diplomacy 2030 Strategy.

5.2. Options Considered

AIS Site Strategy options analysis – 2019

In 2019, the ASC did extensive exploration and analysis of a range of options to address the above concerns. In responding to the functional requirements and to inform Government consideration, three high level options were considered. These included:

- Base Case
- Revitalisation
- Decentralisation

Base Case

The Base Case would see the AIS Campus continue to operate ageing facilities that are not fit-for-purpose. Many of the facilities have functions that are not aligned to ASC or the "Win Well" Sport Strategies. Retaining these assets represents a significant unfunded financial liability and a risk to solvency. The Base Case anticipated that over the five years from FY2021 to FY2025, the ASC would need to invest approximately $174 million (excluding building price index) in community assets, surplus assets or AIS facilities with functions that are required but are not considered fit-for-purpose (only $8 million of the $182 million required over the five years for assets that the AIS uses and are fit-for-purpose).

The Base Case did not address any of the underlying financial and high performance alignment problems of the current asset base, and therefore, would not deliver any of the benefits. It would not have allowed ASC or the AIS to effectively adapt to meet the needs of the then-new direction of sport and would have limited their ability to fully deliver on then National Sport Plan *Sport 2030*, the ASC Strategy or the AIS Strategy.

Revitalisation Options

Under Option 1, a project scope was developed, based on the functional requirements and an analysis of the existing facilities. Where feasible, existing facilities would be retained, noting some works will be required to ensure these buildings are fit-for-purpose. Several new facilities will be required including the High Performance Centre (HPC), Athlete Accommodation, Engagement Centre, Flume and Athletics Track.

To enable the construction works, some assets would also need to be relocated, however the footprint of the new buildings allows ongoing operation of the AIS to continue on site with minimal disruption during the construction period. Surplus buildings will be demolished, community assets will be transferred to alternative owners and surplus land will be divested over time. The AIS Campus would be consolidated into a smaller footprint.

Options 2 and 3 were developed and investigated as lower initial capital cost alternatives to Option 1. While the scope in Options 1 and 2 are consistent, Option 2 would be delivered through a sale and leaseback delivery approach and upon investigation, presented a much higher operational and financial risk. While this removed the need for an upfront capital injection from the Commonwealth, it significantly and permanently increases the operating cost of the ASC as well as reducing control over the assets. This in turn reduces the agility that ASC and the AIS Campus would have to adapt to changes in high performance sports into the future.

Option 3 was a phased approach of Option 1, with future phases to complete the development of the AIS Campus subject to future budget bid processes.

A summary of the options is shown in Table 1 **- Summary Comparison of Revitalisation Options** below.

Table 1 - Summary Comparison of Revitalisation Options (New Build, Refurbishment and Enabling Works)

	Option 1 – New Build	Option 2 - Refurbishment	Option 3 – Enabling Works
Scope	1. New build • HPC, • Athlete Accommodation, • Flume • Engagement Centre • Athletics Track • Synthetic Field 2. Refurbishment • Testing & Training Pool • Multi-Sport Facility • Recovery Centre 3. Enabling works • Warehouse and Logistics • Maintenance 4. Demolitions • Gymnasium, • Warehouse and Logistics • Maintenance, • Athletes Village, • Junior Residences, • Corporate Services, • Spine, • Grass Fields 1&2, • Football Centre, • Sport Training Facility, • HPC, • HPC Management Hub, • Tennis Courts, • Throwing Fields • Horticulture	1. New build • HPC, • Athlete Accommodation, • Flume • Engagement Centre • Athletics Track • Synthetic Field 2. Refurbishment • Testing & Training Pool • Multi-Sport Facility • Recovery Centre 3. Enabling works • Warehouse and Logistics • Maintenance 4. Demolitions • Gymnasium, • Warehouse and Logistics • Maintenance, • Athletes Village, • Junior Residences, • Corporate Services, • Spine, • Grass Fields 1&2, • Football Centre, • Sport Training Facility, • HPC, • HPC Management Hub, • Tennis Courts, • Throwing Fields • Horticulture	Capital works under Phase 1 1. New build • HPC, • Athlete Accommodation • Flume 2. Refurbishment • Testing and Training Pool • Multi-Sport Facility 3. Enabling works • Warehouse and Logistics • Maintenance 4. Demolitions • Gymnasium • Warehouse, Logistics • Maintenance
Delivery Model	Direct fund and build approach as a single integrated project	Sale and Leaseback	Direct fund and build approach over two distinct phases

Following a comprehensive, multi criteria, analysis of viable options (including a detailed cost benefit analysis across the 3 Options), Revitalisation Option 1 was identified as the optimal option for delivery of the AIS HP Sporting Precinct. Notably, Option 1 included the development of a new HP Centre, new Athlete Accommodation and a new Synthetic Field.

Option 1 was assessed as being the model most capable of delivering on the then National Sport Strategy *Sport2030*, Sports Diplomacy 2030 and National High Performance Sport Strategy 2024 (NHPSS) as well as the fact that it presented the optimal value for money of all the options when considered from quantitative and qualitative perspective. In addition, it also presented an equal lowest risk profile of the options, including the base case.

5.3. Independent AIS Review

In late 2023, the Australian Government announced an independent review into the AIS infrastructure to help guide investment in sporting facilities to ensure the AIS Campus can continue to best support Australia's high performance athletes (the AIS Review).

The Terms of Reference for the AIS Review included the consideration of the AIS infrastructure, specifically:

- its optimal location in the context of Brisbane 2032 and the proposed revitalisation of the existing AIS campus at Bruce;
- a review of what facilities are required for the AIS to achieve its purpose and to deliver its responsibilities, including how best to invest in sports facilities to ensure the AIS continues to remain fit-for-purpose in supporting high-performance athletes; and
- the AIS facilities required by Australian athletes for the Brisbane 2032 Olympic and Paralympic Games and beyond, including advice on strategic investment in high-performance facilities that align with the "Win Well" Sport Strategy.

The AIS Review and recommendations were informed by:

- the stakeholder views and insights;
- high-level financial modelling and analysis of appropriate accommodation for athletes and staff at the AIS undertaken by Ernst and Young (EY) under a range of possible scenarios. and
- design work undertaken by Populous, a well-regarded architect with solid and extensive experience and expertise in sports infrastructure design and delivery, and previous businesses cases and masterplans prepared by the ASC.

In order to understand the use and condition of the various buildings proposed for replacement the AIS Review had access to previous asset condition reports prepared for the AIS. Based on this information, the AIS Review concluded that there are structural issues and defects across many of the older buildings on the campus, rendering them no longer fit-for-purpose or, they have reached the end of their useful life.

Further investment in these buildings would be counterproductive and not value for money. As an example, the High-Performance Centre (Buildings 19 and 34) needs substantial repair. The Centre's sheeting to the elevations is extensively cracked and the roof is deteriorating and needs to be replaced.

The AIS Review included wide and extensive consultation, including one-on-one consultations with over 50 groups representing all the major sports, the Australian Olympic Committee, Paralympics Australia, Commonwealth Games Australia, Sport Integrity Australia, State and Territory based institutes and academies, the ASC, elite coaches and athletes including current and former Olympians, Paralympians, ancillary professionals, government officials and industry veterans.

In January 2024 the AIS Review was presented to the Minister for Infrastructure, Transport, Regional Development and Local Government and the Minister for Minister for Aged Care and Sport.

The AIS Review addressed its Terms of Reference and considered how best to invest in sports facilities to ensure that the AIS remains fit-for-purpose in supporting high-performance athletes. Particularly in the context of a national approach that supports international

competitiveness and achieving success at upcoming major sporting events, including in the lead up to the Brisbane 2032 Olympic and Paralympic Games and beyond.

The AIS Review emphasised that the AIS is a much loved and respected national institution. When it was established in 1981 it was unique in its focus on high-performance, sport science and high-performance training methods. It was so successful that it was replicated by sporting nations around the world and became the benchmark model to achieve sporting success.

However, following years of minimal investment, many of the AIS' facilities at the Bruce campus are now dated, not fit-for-purpose and in particular, non-compliant with the accessibility needs of para-athletes. In addition, the national High-Performance Sport System has also evolved to support decentralised training options around the country, allowing athletes to remain closer to families and communities for their daily training regimes.

In this context, the AIS Review addressed the condition of current AIS infrastructure and provided advice on strategic investment in additional or replacement high performance facilities that would support and align with the strategy developed by the ASC to optimise outcomes and sustainable success for Summer and Winter Olympic and Paralympic and Commonwealth Games sports, in alignment with the "*Win Well*" Strategy.

The AIS Review made twelve recommendations and highlighted two key areas for consideration.

- The condition of the physical infrastructure supporting the AIS and its strategic fit for the "*Win Well*" Sport Strategy; and
- The effectiveness of the current operating model and the referrals and arrangements between the AIS and the various state and territory based National Sporting Institutions and the National Institute Network.

The AIS Review's findings included:

- There is overwhelming support from those for the AIS Campus to continue operating as a Centre of Excellence for high-performance athletes and be Canberra based. It is essential to support Australia's High-Performance Sport System and the "Win Well" Sport Strategy and fills the role as the spine to support decentralised high-performance training options around the country,
- Investment in the AIS will be required for the AIS to continue to deliver results. It needs urgent funding to revitalise the campus at Bruce to best support Australia's "*Win Well*" Sport Strategy and broader sports use.
- Revitalisation should focus on high-utilisation, high-performance facilities including new accessible accommodation, a Multi-Sport Dome and a new High Performance Training and Testing Centre, along with supporting services and innovation drivers.
- Any future work should be done to provide for a sustainable financial footing for the AIS Campus.

The AIS Review recommendations included the development of:

- a new inclusive, accessible multi-story Athlete's Village capable of housing up to 250 athletes in various room configurations that accommodate athletes and their families and or carers at the AIS Campus.
- a Multi Sports Dome to provide an all-weather, indoor training facility, with integrated facilities for testing and analysis. The Multi-Sports Dome should be

climate controlled to replicate various climatic conditions including a safe controlled thermoregulated environment for para-athletes. It would include a two lane (4 lane straight), modified athletics track, jumps and throwing areas, a full-sized synthetic field suitable for various football codes, multi-sport training and supporting engineering and sport science capabilities; and

- a new High-Performance Training and Testing Centre incorporating applied sport science and sports medicine. The new Training and Testing Centre would accommodate a combination of sports including gymnastics and winter sports.

Athlete Accommodation

The AIS Review considered that a new multi-storey Athletes' accommodation was an immediate priority to support a world best facility.

The AIS Review based its assessment on the analysis and information provided in previous AIS business cases in addition to a "Revision F 2018 Master Plan" prepared by the ASC and Asset Condition Reports. It also took into consideration views expressed by stakeholders, including current and past coaches, athletes, commercial sports administrators, officials and a personal viewing of the Bruce campus.

To test the ASC's 2023 Business Case costings and potential market, the AIS Review commissioned Ernst & Young (EY) to model 200, 250 and 400-bed accommodation facilities. Based on a modern co-living / student accommodation inspired design, with different room configurations, private bathroom facilities and common areas. Hotel-style variable occupancy rates were considered given the variable usage pattern of most AIS accommodation.

In commissioning the consultancy, the Review assumed that a single multi-storey accommodation facility would likely deliver a better value-for-money outcome than the two separate accommodation facilities previously proposed by the ASC.

The Athlete Accommodation facility would also be configured to be suitable and accessible to higher needs para-athletes who need one or more carers staying with them.

Multi Sports Dome

An indoor Multi Sports Dome would constitute a major uplift to the AIS as the first such facility in Australia to offer high-performance facilities suited to multiple sports (noting that are several other sports dome facilities in Australia).

The proposed Multi Sports Dome will provide a fully para-accessible, climate controlled multidisciplinary indoor training, testing and analysis space and will consist of an inflatable fabric structure. The Multi Sports Dome is intended to enable fully integrated multi-disciplinary data capture and analytics, leveraging the leading capabilities of the AIS and the sports technology industry.

It would include an indoor multi-sport full sized synthetic field suitable for football, rugby union and rugby league and other multi-sport training. Being fully para inclusive and accessible, it would also provide a thermoregulated training environment for para-athletes.

A 2-4 lane, adjusted athletics track, jumps and throwing areas, team change rooms, meeting areas, and physiotherapy rooms are also proposed with potential for a sports analysis and data centre to be attached.

It was highlighted that this facility would not replace the need for a full-length outdoor athletics track will still be needed for time trials, competition, etc.

High Performance Training and Testing Centre

In assessing the requirement for a new High Performance Training and Testing Centre (HPTTC) rather than a refurbishment of the existing facilities, the AIS Review's recommendation considered the following significant considerations

The concept is for a centre for a combination of sports, including gymnastics and winter sports in an integrated sport science performance environment. Newer "millennial" sports which do not have suitable facilities elsewhere in Australia such as skate, sport climbing, BMX, mountain bike (with jump and aerial requirements), would also be accommodated.

Providing space for these new sports to train and test in a high-performance environment also builds pathways for young Australians who may not take up traditional high-performance sport. There is more scope through this initiative for them to excel in their chosen sport and become role models for participation and success in the wider community.

5.4. Stakeholder Views

The AIS Chief Medical Officer said that it is critical for the AIS Campus to have an internal training area with HEPA filters installed so that athletes can train safely indoors and be protected from bushfire smoke and other air borne particulates that negatively impact performance and respiratory health.

A University of Queensland professor noted that climate and heat can also pose particular issues for many athletes with disabilities. They require climate-controlled spaces due to difficulties with thermoregulation and a covered arena would provide great benefits to them.

A Commonwealth Games Australia representatives and Gymnastics Australia noted the importance of managing Canberra's winter climate for year-round training facilities.

Athletics Australia said that if the AIS is made fit-for-purpose with access to temperature controlled indoor facilities, athletes will use it as a destination of choice for preparing for international meets. Reducing resource requirements that would otherwise be spent on sending athletes overseas.

5.5. 2024-25 Federal Budget Allocation

The ASC has worked closely with the both the Federal and Australian Capital Territory (ACT) Governments to optimise the future of the AIS. In response to the AIS Review and previous studies and business cases, the Australian Government committed $249.7 million (GST excl.) over three years from FY2024–25 for the ASC to revitalise the AIS Campus.

6. Scope of Works

6.1. Project Works Description

The proposed new facilities comprise:

6.2. Athlete Accommodation

The new multi-story accommodation building will be suitable for elite para and able-bodied athletes and will be located adjacent to the existing Residence of Champions to allow for cross functionality and ease of access to the communal dining areas and kitchen.

It will provide high quality accommodation that can be let as individual suites or suitable for teams of all sizes. All accommodation will be para-accessible and flexible to the needs of different teams and sports, with interconnecting rooms able to support a variety of configurations to support groups and caring requirements.

Figure 1 - Athlete Accommodation (Artist's impression)

With a strong focus on wellness and spatial quality, the accommodation offering will provide a high-quality environment that reinforces the high-performance outcomes of training.

It is anticipated that the top floor of the accommodation building will have future flexibility to be converted into altitude rooms to enable 'live high, train low' training that complements other interventions for events and disciplines where this is best practice.

There is a critical adjacency between the new athlete accommodation, the Multi Sports Dome, the HPTTC and the existing athlete accommodation and dining hall as training, testing, eating, resting and recovery are closely linked, and offer a value proposition to athletes and support staff.

6.3. Multi-Sports Dome

An inflatable fabric roofed facility that includes a modified 2 lane athletics track around a large sports pitch that is suitable for multi-sports including flag-football, lacrosse, softball / baseball, hockey, football, rugby union and rugby league training.

Figure 2 - Interior Multi Sports Dome (artist's impression)

An ancillary building is expected to be attached to the fabric roofed structure that will incorporate airlocks, changerooms, lab/analysis space as well as equipment storage.

The Multi Sports Dome will provide a fully para-accessible climate controlled multi-disciplinary indoor training, testing and analysis space. The Multi Sports Dome will be configured to optimise the number of targeted sports that have access to quality usable training areas and can provide in-situ performance support to athletes in an environment that most closely replicates competition demands, with space allowed for biometric testing review equipment and analysis.

Again, there is a critical adjacency between the Multi Sports Dome, Athlete Accommodation, the HPTTC buildings to maximise the co-location of use and functionality.

6.4. High-Performance Testing and Support Centre

The High Performance Training and Testing Centre (HPTTC) will be a key facility required to replace ageing testing, and support spaces at the AIS. It will provide para-accessible, multi-disciplinary training and performance support spaces for athletes, coaches, teams, and sports.

Figure 3 - HPTTC Interior (artist's impression)

The functional requirements have been developed to address several critical adjacencies, enabling the AIS to deliver a value proposition that does not currently exist. The functional requirements and critical adjacencies were developed in consultation with AIS staff and athlete representatives. Key adjacencies include:

- Co-location of sports medicine, physiotherapy and blood labs to maximise collaboration between these groups (with the space provisioning for an imaging centre to be co-developed with a commercial operator at a later date);
- Close relationship between physiotherapy, recovery (and strength and conditioning gym to maximise collaboration between physios and strength and conditioning staff and allow for shared use of these spaces;
- Close relationship between the indoor running track in the Multi Sports Dome and the strength and conditioning gym to maximise testing and training usage of these two spaces; and
- Close relationship between physiology and biomechanics lab to maximise the collaboration between these disciplines and to maximise the use of these spaces as flexible lab space for new and unknown requirements.

The close proximity of the HPTTC to the new athlete accommodation and Multi Sports Dome will better support high performance outcomes of able bodied and para athletes, support staff and researchers.

6.5. Functional Design Brief

The ASC developed a Functional Design Brief for the redevelopment of the proposed new facilities to represent required the design and functional and performance requirements.

This design brief was used to inform the Populous designs and the P80 costings prepared by Rider Levett Bucknall (RLB). It is based on feedback and direction from ASC teams from their industry research and stakeholder briefings, and will be further refined through the development and procurement process.

The ACS's project objectives are to:

- Re-establish the AIS as a world-class integrated campus for sporting excellence that brings national sporting organisations and institutions together and enables elite athletes, coaching and support specialists to innovate and prepare our athletes for Brisbane 2032 and beyond.
- Reactivate the AIS Campus and provide world-leading, future-focused, flexible and sustainable facilities to enable the AIS to deliver on its key services that support the ASC Strategic Pillars and Goals, direction, high-performance outcomes and provides a centre of knowledge and learning to engage with the community and get people moving more often.

The design objectives of the building designs are to:

- Ensure high performance outcomes are improved for athletes, coaches, ASC staff and support specialists;
- Enable and support interaction and collaboration between athletes, coaches, support specialists, staff, National Sports Organisations (NSOs) and where appropriate industry and academic partners;
- Ensure the built form provides an extraordinary experience for athletes, coaches, support specialist, staff and public when visiting, working or living at the AIS Campus;
- Ensure the training, testing, teaching & research spaces are flexible and adaptable;
- Provide efficient and flexible building infrastructure;
- Provide high quality living and working environments;
- Maximise universal accessible design principles;
- Maximise sustainable design principles;
- Provide crime prevention through environmental design;
- Manage public access;
- Maintain a consistent building scale, massing, setback, architectural and landscape language;
- Ensure new development does not negatively impact existing operations or high performance programs during construction or after development; and
- Integrate AIS/ ASC branding.

6.6. Project Siting

To enable the three priority facilities to be developed and delivered as soon as possible, the ASC has recommended that all three new facilities would be sited within the existing ASC lease boundaries at the northern end of the campus.

A key siting and plan objective was to ensure the location of new facilities improves high performance outcomes for athletes, coaches, staff and support specialists through appropriate building adjacencies and functional relationships.

Consequently, the siting of the new facilities should ensure co-location and close proximity to maximise their use and value to the athletes and support staff. In addition, at a practical level to facilitate an efficient building timeline to completion, the new facilities need to be sited within the existing AIS Campus leases.

Early, conceptual master planning designs proposed siting some of these priority facilities outside the current lease boundaries, on the assumption that these could/would be amended. However, developing the new facilities within the existing AIS Campus leases avoids the time and negotiations that may be involved in expanding the lease boundaries without impacting on the functional proximity outcomes required.

To facilitate these requirements and keeping the new developments at the northern end of the AIS campus it is proposed that the new facilities be built in the areas identified in Figure 4 below. The areas shown represent the dimensions of the current reference designs produced for the P80 Costing and are illustrative only to demonstrate the ability to fit the facilities (as costed) within the proposed areas.

Figure 4 - Indicative Facility Siting within AIS Campus Leases (artist's impression).

6.7. Land Tenure, Zoning and Approvals

The current AIS Campus is within five existing crown leases (ASC Leases) comprising:

- Lease A (38.7ha) for the purposes of ASC and AIS operations, expiring in 2121;
- Lease B (11.3ha) for the purposes of ASC and AIS operations and car parking, expiring in 2121;
- Lease C (0.4ha) for the purposes of car parking, expiring in 2121;
- Lease D (6.3ha) for the purposes of car parking, expiring in 2121; and
- Lease E (8.5ha) for the purposes of multi-purpose playing fields, expiring in 2121.

Leases A and B are illustrated in Figure 4.

The ASC Leases are within the National Capital Authority's (NCA) AIS Precinct or Designated Zone. The use of the land is restricted under the current Crown Leases.

Under the relevant ASC Leases, the ASC covenants to, amongst other things, only use the premises only for the purposes of sport, sports administration and sports training and ancillary accommodation, retail and restaurant facilities and, in addition to those purposes, for the purposes of concerts, exhibitions and community events.

Subject to Public Works Committee approval, the NCA is the Commonwealth Agency responsible for the approval of development in Designated Areas. Consequently, all planning approvals and negotiations would be between the ASC and the NCA.

The ASC and its selected builder would engage with the relevant ACT Government owned utility providers as and when required to plan and deliver the Project.

6.8. Timing

The current anticipated construction program is expected to commence October 2025 (as outlined in Figure 5) with an 18 month total construction period, to be completed by March 2027.

Figure 5 - Timeline to Brisbane 2032.

7. Occupational Health and Safety

The ASC will ensure that the Project and the Project's D&C Builder will comply with the *Work Health and Safety Act 2011* (WHS) (Cth), *Federal Safety Commissioner Act 2022*, and Work Health and Safety Regulations.

The ASC will ensure that the Design Team will include a Safety in Design approach to address risk mitigations and document safety measures to be adopted in both construction and operation of the works.

The Project's Design and Construct (D&C) Builder will be required to develop and adhere to a safety management plan for the construction phase, which incorporates Safety in Design mitigations identified by the Design Consultant as well as other relevant risk mitigations, prior to commencing any works. The Project's D&C Builder will ensure that project safety and work health and safety specialists will undertake work health and safety assessments to ensure all impacts are identified and correctly managed during the works.

8. Site Security

As a consequence of the facilities' clustered siting at the northern end of the AIS Campus the ASC would explore complete fenced isolation of the Project works site from the functioning AIS Campus. Road access in and out of the works site could be from the northern end of Leverrier Street while AIS access would be via a southern entry to Leverrier Street. The D&C Builder and Design Team will consider design requirements to be adopted to address security and crime prevention strategies for the project both during construction and operationally.

Prior to commencement of any works, security screens, fencing and safety barriers would be installed to control unauthorised access, vandalism, or unintended damage to the project site and to restrict worksite access to the AIS Campus.

9. Environmental and Ecological and Heritage Assessment

A Detailed Environmental Constraints Assessment of the AIS Campus was prepared in 2019.

This report provided a detailed assessment of the environmental constraints across the AIS Campus, focusing on air quality, contaminated land and the area's historical background. It discusses the impact of proposed developments, emphasizing the need for careful design considerations.

The 2019 Detailed Environmental Constraints Assessment assessed physical factors across the AIS Campus such as contamination, ecological factors such as native vegetation and fauna, and socio-economic factors like significant trees and heritage.

The report suggests that there were high constraints within the AIS Campus related to ecological factors, with a large area of intact woodland along the southern edge of the AIS Campus being a high-risk area. However, as the sites proposed for the three new facilities are in an area at the northern end of the AIS Campus and do not contain woodland areas, this risk or constraint is considered extremely low to non existent.

9.1. Ecological

The report addressed ecological assessments of the AIS precinct highlighting areas with a potential presence of threatened avi-fauna species and significant trees. In this respect, the report does not identify any threatened avi-species in the areas considered for the new athlete accommodation, the Multi Sports Dome or the HPTTC.

Two significant trees were identified within the area near the Multi Sports Dome site. It currently appears that these two trees may be easily accommodated and retained in situ and outside the Multi Sports Dome footprint as they are close to the edge of southern boundary area assumed for the Multi Sports Dome.

The report highlights the need for detailed management plans for Hollow-bearing Trees and potential impacts on heritage sites. However, the report does not identify any areas of or evidence of cultural heritage or hollow bearing trees on the proposed new facility sites.

Due to the absence of threatened ecological communities within the study area and no threatened species listed under EPBC Act in the areas considered for the new athlete accommodation, the Multi Sports Dome or the HPTTC, referral under the EPBC Act was not recommended. The 2019 Detailed Environmental Constraints Assessment stated that it was a high likelihood that no threatened species listed under EPBC Act would be detected at the site there were no threatened avi-species identified in the site area. However, the ASC would seek further, updated, confirmation of this during the detailed design phase of the project and action accordingly.

9.2. Soil

No high-level constraints were identified in the previous assessment. However, specialist investigations for contamination were recommended.

Addressing this recommendation, the ASC recently commissioned a detailed geotechnical and soil contamination assessment. This assessment concluded:

The results of the preliminary soil analytical data screening assessment were:

- *No concentration of chemicals of potential concern targeted during this preliminary soil screening assessment exceeded the adopted site assessment criteria.*
- *Detections of petroleum hydrocarbons was primarily within samples obtained from the existing land surface within or adjacent to vehicle parking areas, likely a result of minor spills or leaks from parked vehicles; and*
- *The concentration of metals analysed appear to be consistent with background concentrations and ranges for the local (Canberra) region.*

On the basis of the findings of this assessment, in its current state, D&N consider that no impacts have been confirmed that indicate the Site is not suitable for the permissible uses.

The report also recommended some recommendations for additional, minor, investigation and management actions to implemented as part of the detailed design process to support future development of the Site.

10. Planning and Design Concepts

10.1. Design Objectives

The Project's guiding design objectives of the building designs are to:

- Ensure high performance outcomes are improved for athletes, coaches, ASC staff and support specialists;
- Enable and support interaction and collaboration between athletes, coaches, support specialists, ASC staff, National Sport Organisations and where appropriate industry and academic partners;
- Ensure the built form provides an extraordinary experience for athletes, coaches, support specialist, staff and public when visiting, working or living at the AIS;
- Ensure the training, testing, teaching & research spaces are flexible and adaptable;
- Provide efficient and flexible building infrastructure;
- Provide high quality living and working environments;
- Maximise universal accessible design principles;
- Maximise sustainable design principles
- Provide crime prevention through environmental design
- Manage public access;
- Maintain a consistent building scale, massing, setback, architectural and landscape language;
- Ensure the built form, landscape and urban design provides an extraordinary experience for athletes, coaches, support specialist, staff and public when visiting, working or living at the AIS;
- Ensure new development does not negatively impact existing operations or high-performance programs during construction or after development; and
- Integrate AIS / ASC branding and colour templates.

The Project's Functional Design Brief was developed using recommendations and outcomes from the ASC, AIS and architects, Populous' extensive experience with sporting venue design both from within Australia and globally.

The new buildings will be designed and constructed to meet with the requirements of the following:

- The National Construction Code (NCC);
- Commonwealth Energy Efficiency in Government Operations Policy (EEGO);
- *Disability Discrimination Act 1992*;
- *Occupational Health and Safety Act 2000*;
- Any other relevant Commonwealth or Territory law or policy.

In addition to the above, all components, elements, structures and installations shall be designed and constructed in accordance with all relevant Australian regulations, standards and codes of practice. Reference shall also be made to International Standards where appropriate. Equipment will be selected on the basis of reliability and capacity and according to the EEGO recommendations.

10.2. Architectural Descriptions & Space Requirements

10.2.1. Athlete Accommodation

A critical component in the success of the AIS Campus is having athletes and support staff being able to reside on site for short, medium and long term stays in order to meet their requirements and developmental needs. The ASC proposes the development of new high-quality accommodation for elite and pre-elite athletes, support staff, and select commercial users of the site to allow for world-class athlete preparation, recovery, research and innovation.

A clear value proposition for choosing to stay at AIS aimed at:

- Short, medium and long-term athlete stays.
- NSO high performance camps (elite and pre-elite).
- Pre-elite athlete induction and verification camps.
- Commercial accommodation for AIS precinct users such coaching clinics and NSO conferences.

The Athlete Accommodation is to include:

- Circa 200 Bed accommodation, including
    - Including a mix of one and two bed rooms with flexible grouping around grouped common areas (mix is subject to further detailed design for optimal utilisation);
    - Supervisor's apartments
- Teaching / Athletes' Kitchen - self catering kitchen with athlete nutrition teaching space;
- Team drop-off, pick-up and loading area;
- Lobby, reception, security, back of house offices and service areas including;
    - Reception and lobby;
    - Accommodation administration office and secure storage areas;
    - Security office;
    - Team meeting, lounge, multipurpose area;
    - Amenities.
- Casual communal internal and external areas;
- Meeting and tutorial rooms;
- Athlete and support staff laundry facilities;
- Secure storage areas including an armoury for safe storage of security staff side arms and sporting rifles, pistols and bows. The armoury construction and access are to align with Australian Federal Government PSP Framework and AFP recommendations;
- ASADA drug testing area (for residential and non-residential athletes);
- Provision for universal access;
- Close adjacency to existing Residence of Champions, and new HPTTC and the Multi Sports Dome.

The corridors to all residential floors will have a number of glazed security access control points to allow for different areas of the building to be separately secured for individual groups of varying sizes. It is envisaged these to be glazed doors with swipe access and will be required for groups of underage athletes and their supervisors, visiting teams and long

stay athletes. Each of these separate areas will have access to the nutrition, ice and laundry facilities.

All corridors will be well-lit with a high level of acoustic separation from rooms. Generally, walls and ceiling to the corridors will be painted plasterboard and floors to be carpeted.

Appropriate wayfinding and signage will be provided in corridors. Room, floor and statutory signage will generally be fixed aluminium signs while signage and wayfinding to flexible areas will be digital screens so that they can be easily changed to suit changing requirements of spaces (meeting rooms, casual dining, social spaces, etc).

There will also be a number of LED information screens throughout the building to allow for general information to be communicated to residents. The corridors will have suitable AIS and Sport AUS branding and imagery, to reinforce the significance of the AIS and the culture and ethos of Sport AUS.

Acoustic treatment to provide separation from bedrooms and adjacent circulation zones.

10.2.2. Multi Sport Dome

The Multi Sports Dome will provide a fully para athlete accessible climate controlled multi-disciplinary indoor training, testing and analysis space. The Multi Sports Dome will be configured to optimise the number of targeted sports that have access to quality usable training areas and can provide in-situ performance support to athletes in an environment that most closely replicates competition demands.

The Multi Sports Dome will be a world class, indoor facility allowing the AIS Campus to efficiently and sustainably lead, innovate and coordinate high performance sport in Australia by integrating training, performance support, and research and innovation facilities.

The adjoining, ancillary building containing the support services and analysis spaces should be a simple modular form (traditional construction) for flexibility, adaptability and ease of construction.

Figure 6 - Multi Sports Dome Interior (Artist's impression)

The Multi Sports Dome facility will be an Inflatable fabric roofed structure (Air Dome) enclosing:

- A modified 2/4-lane 400m athletics track with extended sprint straight over-run, warm up and jumps and throws areas.
- Full size synthetic rectangular pitch suitable for football, rugby union and rugby league training as well as other sports including flag-football, lacrosse, softball / baseball, hockey, football.
- Augmented HVAC system with HEPA filters for enhance air quality additional to heating and cooling.
- Large scale hanging nets to allow division of the space for multiple disciplines and sports to use the dome concurrently.
- Testing and analysis equipment and associated support structures.
- HVAC and lighting systems to support high performance use.
- Entry airlocks for both users and vehicles (such as forklifts, medical assistance etc)
- Storage space for large scale sports equipment including temporary timber sports flooring and equipment such hurdles and football and rugby goal posts and protective padding.
- Ancillary building attached to the fabric roofed structure incorporating
    - Entry airlocks for users and vehicles
    - Facility management office
    - Athlete change rooms and coaches' rooms.
    - Multi-purpose spaces for use as meeting areas, physio rooms, group analysis or similar.
    - Physiology lab space.
    - Storage space for lab & testing equipment.
- Hard and Soft Landscaping.

Facade

The façade of the inflated dome will be the PTFE or similar fabric. The fabric is inflated through pressurisation of the internal spaces and will likely be insulated triple skin pending the final design.

The facade of the ancillary building is to be constructed of insulated wall, door and glazing systems suitable for Canberra's diurnal temperature variations and NCC Section J compliance. Façade systems will take into account the requirement for the ancillary structure to act as an airlock for the pressurized dome.

The design intention of the façade is to provide a contemporary high quality architectural language consistent with the façade of the HPTTC building. Openings for pedestrian and vehicular entries will be pronounced in order to make wayfinding intuitive.

Key elements of the façade include:

- Membrane fabric dome (likely a proprietary system – eg https://arizonbuildingsystems.com.au/);

- Non-combustible aluminium cladding panel to ancillary building structure (sitting external) such as Alpolic NC or similar;
- High quality insulated metal cladding systems such as Colourbond Longline cladding or similar;
- Shop front double glazed window systems to ground floor with aluminium façade louvre systems for privacy and window protection where required;
- Double glazed door systems;
- Entry portico cladding as timber or timber effect wall systems such as Prodema or similar;
- In-situ or precast concrete elements to ground floor areas with risk of vehicle strike (entries and loading) and
- Exterior signage.

Roofing

There are 3 roof components for the Multi Sports Dome:

1. Membrane fabric dome, internally pressurized
2. Metal roof cladding to the high-bay lab spaces
3. Waterproof concrete roof deck system suitable for supporting mechanical plant equipment above the single story ancillary building area and single story engineering workspaces.

Areas of mechanical and other plant equipment will have access be restricted to authorised personnel with fixings and finishes to a level suitable for maintenance and facility management staff.

All plant equipment to be screened from public view with 2 stage performance louvres allowing for required plant ventilation and exhaust rates.

All other roof areas will be not generally accessible and be lightweight steel sheet roof systems with suitable acoustic and thermal insulation to allow for high quality thermal and acoustic environments in the spaces below. Where skylights are used these will generally be vertical glass ‘window’ elements in the roof complying with Section J requirements and maximising indirect daylight (where desired) and minimising direct sunlight.

Interior

Athletics Track

Modified 2/4 lane athletics track of a around the sports pitch with extended 100m sprint straight over-run, warm up and jumps and throws areas. The length of the track would be dependent on the size of the rectangular training space.

The track area will also have specialist areas for jumping and starts at the western overrun area of the field. These will include an area for high jump mats and equipment, for pole vault mats and equipment and for long jump (with suitable external overrun).

Synthetic Training Space

Inside the Athletics track will be a full size synthetic rectangular pitch suitable for football, rugby union and rugby league training.

The synthetic training surface will have multiple sport line markings and goal post drop in points for training and games

Perimeter floor boxes with data and power points will be incorporated to enable the use of specialist measurement and testing equipment;

Perimeter barrier protection will be installed to protect players and equipment from collision

The Dome facility will also include:

- Augmented HVAC system with HEPA filters to enhance air quality additional to heating and cooling.
- Large scale operable hanging nets to allow division of the space for multiple disciplines and sports to use the dome concurrently.
- Support structures required for specialist recording testing and analysis equipment (such as camera platforms, pole structures and hanging points).
- LED sports lighting systems to support high performance use.
- Integrated LED lighting, AV & PA systems to allow for immersive game similar conditions or large scale cognitive testing. This may include large scale projections and the use of LED ribbon boards or video screens;
- Entry airlocks for users and vehicles:
- Integrated AIS & ASC signage and branding including:
- Super graphic branding on the dome walls;
- Hanging signage and flags;
- Statutory information and wayfinding signage.

Ancillary Building

An adjacent, ancillary building is required attached to the Dome to provide space for labs and support services, specifically this would include:

- Entry airlocks for users and vehicles:
    - The pedestrian airlocks would serve as a fully accessible lobby area for the dome with access control, a service window to the facility management offices and entry to change rooms.
    - The vehicular airlock would be sized large enough for a 14m vehicle to pass into the space. The airlock would also be directly connected to equipment storage and maintenance rooms.
- Facility management offices;
- Athlete change rooms and coaches' rooms, incorporating:
    - Male and female accessible change areas;
    - Male and female accessible toilet and shower areas;
- Multi-purpose spaces for use as meeting areas, physio rooms, group analysis or similar;
- Biomechanical lab space;
- Storage space for large scale sports equipment;
- Data Centre area for storage of digital servers as required by the testing facilities; and
- Mechanical and services equipment.

10.2.3. High Performance Training and Testing Centre

The High Performance Training and Testing Centre (HPTTC) will be a key piece of infrastructure required to replace ageing training, testing and teaching spaces at the AIS. The HPTTC will provide para accessible multi-disciplinary strength & conditioning, training, testing and teaching space for athletes, teams and sports.

The facility will enable the effective delivery of cutting edge treatment, research, analysis, athlete rehabilitation, injury management and recovery of athletes to maximise the training, testing, and teaching opportunities.

The HPTTC will also include a provisional space as cold shell space for potential commercial medical imaging to medical imaging capability at the AIS in partnership with the private sector. This will be pursued at a later date.

The close proximity of the HPTTC to the new athlete accommodation and Multi Sports Dome is expected to better support high performance outcomes of able bodied and para athletes, support staff and researchers.

The HPTTC building may be a simple modular building form to maximise flexibility, adaptability and ease of construction; both internally and externally, whilst providing a high quality, consistent street frontage to Leverrier Street, Bruce.

The HPTTC will include three distinct training and testing areas:

A. Indoor Multi-Sport & Gymnastics Space

This area will include functional training and testing for Olympic and Paralympic sports including:

- Gymnastics;
- Basketball;
- Netball;
- Tennis;
- Badminton;
- Volleyball;
- Cricket;
- Skateboarding;
- Sport Climbing; and
- BMX

B. Flexible Training Space

A flexible training space for multi sport training, testing and research and suitable to accommodate sports or activities with lower ceiling height requirements.

C. Strength and Conditioning Space

A space for AIS strength training, testing, rehabilitation and research.

The HPTTC would also include other ancillary spaces such as:

- Coach support areas to all training and testing areas;
- Storage space to all training and testing areas;

- 4 x change rooms for athletes, coaches and staff allowing for at least 2 of these to be separated (if required) for the use of minors or visiting teams and suitable for para and able-bodied users;
- Sports medicine and rehabilitation centre areas including medical suites to cater for visiting teams and areas for treatment, research, testing and data collection and analysis;
- Athlete, coach and staff break out areas with access to self-service nutrition and hydration (including coffee);
- A double height circulation space at the main entry and stairs incorporating a digital "AIS Hall of Fame";
- Flexible office and lab spaces;
- Small, medium and large conferencing and teaching spaces (120, 75, 30 people capacity) with support spaces, breakout and storage;
- A cold shell space (without fit out) with external public access (and vehicular access) for a potential commercial medical imaging business; and
- HVAC, vertical transport, fire egress, plant rooms and infrastructure services to accommodate the different building uses and users.

Facade

The general architectural intention for the façade of the HPTTC is to provide transparency at the ground plane for activation. With translucent light to training spaces for light without direct sunlight and shaded filtered natural light to all other areas through the use of louvres and shading devices to window and skylights.

The facade is to be constructed of insulated wall, door and glazing systems suitable for Canberra's diurnal temperature variations and NCC Section J compliance. Façade structural systems are to take into account the significant double height and triple height volumes within the building.

It is proposed that for all areas of the building pedestrian entries are pronounced as double height negative volumes in order to make wayfinding to entry points intuitive.

Key elements of the façade include:

- Non-combustible aluminium cladding panel to northern components (sitting external) such as Alpolic NC or similar;
- Insulated translucent white polycarb panel system;
- Shop front double glazed window systems to ground floor with aluminium façade louvre systems for privacy and window protection where required;
- Double glazed door systems;
- Entry portico cladding as timber or timber effect wall systems such as Prodema or similar.
- Insitu or precast concrete elements to ground floor areas with risk of vehicle strike (entries and loading).
- Exterior signage and supergraphics.

Roofing

As with the façade, the roof responds to the architectural program over which it covers to provide the most suitable indoor environmental conditions while maximising structurally efficiency and cost effectiveness.

The roof to the medical, teaching and office areas is designed as a waterproof concrete platform suitable for supporting a planted roof garden, roof deck area and HVAC, hydraulic, fire and communications plant equipment.

Access to the roof deck area and planted roof areas will be either generally accessible or visible so fixings and fittings will reflect this. Where roof areas are publicly accessible, these areas will comply with NCC balustrade requirements. Areas of mechanical and other plant equipment will have access be restricted to authorised personnel with fixings and finishes to a level suitable for maintenance and facility management staff.

All plant equipment to be screened from public view with a simple aluminium or steel vertical screen louvre profile allowing for required plant ventilation and exhaust rates.

All other roof areas will be not generally accessible and be lightweight steel sheet roof systems with suitable acoustic and thermal insulation to allow for high quality thermal and acoustic environments in the spaces below. Where skylights are used these will generally be vertical glass 'window' elements in the roof complying with Section J requirements and maximising indirect daylight (where desired) and minimising direct sunlight.

11. Hydraulic Services

The following design requirements and description of each hydraulic services are to be considered applicable in facilitating each building.

The hydraulic services will comprise the following:

- Sewer sanitary plumbing and drainage
- Trade waste plumbing and drainage including pre-treatment
- Hot, warm and cold-water reticulation system
- Above-ground stormwater system – roof stormwater run-off collection
- Rainwater Reuse System

11.1. Water Connection Parameters

Water service connections to Authority infrastructure will be required to be reviewed for compliance at each stage of development and installation in accordance with Water Metering & Servicing guidelines, the ICON water authorities' guideline requirements.

All new water supply connections will be subject to an assessment and Authority approval whereas any existing connections that may be retained were deemed compliant or special consideration is provided.

In accordance with the water metering and servicing guidelines, existing tapings may also be retained where the upsizing/downsizing of the property service pipe is no more than one pipe size, subject to approval by the water corporation.

Future upgrading resulting from a change in demand will generally require a reassessment with the authority via a new application submission provided on behalf of the client.

11.2. Sewer Connection Parameters

New sewer service connections to Authority infrastructure will require an assessment based on the stage of works occurring and in accordance with ICON water Authorities' guideline requirements.

Existing sewer connections may be retained where compliant or special consideration is provided. The site connections will generally require compliance with ICON Water's requirements.

12. Hydraulic Services Design

12.1. Cold Water Services

Coordination with ICON Water will be required to establish a single meter to serve each of the proposed buildings including any decommission of water meters and water services that are no longer required under the new works.

12.2. Fire Hydrant System

Each building will have a fire hydrant system installed as required by the National Construction Code. The hydrant system will consist of a water connection (combined fire and domestic) from the existing water main located on Leverrier Street, fire brigade booster valve assembly, below and above ground reticulation pipework, a combination of internal and external fire hydrants, testing point, and drain point.

Typically fire hydrant located externally will be positioned 10 metres away from the building structure.

Fire hydrants will be designed and installed to AS 2419.1-2005 and local Fire brigade requirements.

12.3. Fire Hose Reels

Each building will have a fire hose reel system installed if required by the National Construction Code. The fire hose reels will be connected either to the domestic water service or to the fire hydrant service. Fire hose reels can be installed inside cupboards if required. Fire Hose Reels will be designed and installed to AS2441-2005.

12.4. Hot Water System

Electric, storage hot water units complete with pressure relief valves, safe trays, assembly support brackets, pipework, valves, and fittings.

All sanitary fixtures used primarily for personal hygiene purposes shall be tempered with the tempering device (tempering valve or thermostatic mixing valve) complying with AS 4032.1 to limit outlet temperatures to not exceed 45-50 degrees.

Thermal insulation of hot water piping shall be installed in accordance with the requirements of AS,3500.4, AS 3200 and requirements or the National Construction Code.

The hot water system shall be provided and sized to meet a peak hour demand. The hot water reticulation shall be circulating type and sized to suit each of the specific building hot water demand requirements.

12.5. Sewer Services

Coordination with the water authority will be required to establish new connection requirements to each building including any decommission of services that are no longer required under the new works.

All fixtures, appliances, including mechanical condensate, drains, trade waste, and sanitary plumbing and drainage system shall discharge to the proposed new sewer main provided for each of the proposed buildings.

All redundant pipework, fittings, sanitary drainage/sewer points shall be removed, cut / cap, and seal at finished ground/surface level.

The sanitary plumbing and drainage will be designed in accordance with AS3500.2-2-018 and local authority requirement

12.6. Roof drainage and Rainwater System

The rainwater roof runoff to be collected via a gutter system and discharged through to the civil stormwater via a series of downpipes. The roof runoff drainage will be sized according to a 1/100-year storm for box gutter/eaves gutter.

The roof drainage will be designed and installed in accordance with AS3500.3-2018.

12.7. Trade Waste

The wastewater treatment/s and required apparatus (grease trap, solvent, and oil, etc.) related to trade waste, are to be fully assessed on confirmation of end-user requirements.

Investigation into pre-treatment is required and user feedback confirming the type of trade wastes and chemical treatment should be provided. Lint traps should be considered where commercial laundry areas are provided.

The design shall comply with AS3500.2-2018 and relevant wastewater treatment Authorities' guidelines requirements.

13. Environmental / ESD Requirements

13.1. General

The design and construction of the new buildings will incorporate principles of Environmentally Sustainable Design (ESD) as an underlying principle of the project. It will incorporate environmentally responsible materials and processes with the intention of minimising the need to draw upon outside resources and to also minimise outputs to the surrounding environment.

These will include passive solar design, high efficiency plant systems, the use of a significant area of PV panels for energy generation, rainwater harvesting and recycling systems, water efficient fixtures and LED sensor energy efficient lights where appropriate.

Additional ESD requirements and objectives of the design are:

- NCC Section J compliance for all buildings except the inflated sports dome structure;
- Compliance with ACT and Federal Government building sustainability guidelines noting the different building classes and types;
- Green Star 5 Star equivalency for all buildings with certification and other certification tools to be investigated in the next stage of design;
- Offsetting the operational energy use of the Multi Sports Dome with the development of an onsite PV solar farm. Any excess energy generated to be distributed to other buildings on site depending on need;
- Electrify all new building plant and services (where possible) to maximise the benefits of any on-site power generation and the ACT government 100% renewable power grid.
- WSUD and on-site natural stormwater filtration from hard surfaces through gardens beds and plantings to be further investigated in the next stage of the design; and
- Best practice active transport, walkability and accessibility principles.

13.2. Design & Construction Standards

The three new buildings will be designed and constructed to meet with the requirements of the following:

- The National Construction Code (NCC);
- Commonwealth Energy Efficiency in Government Operations Policy (EEGO);
- *Disability Discrimination Act 1992*;
- *Occupational Health and Safety Act 2000*;
- Any other relevant Commonwealth or Territory law or policy.

In addition to the above, all components, elements, structures and installations shall be designed and constructed in accordance with all relevant Australian regulations, standards and codes of practice. Reference shall also be made to International Standards where appropriate. Equipment will be selected on the basis of reliability and capacity and according to the EEGO recommendations.

13.3. Universal Design Principles

The designs are also to apply “Universal Design” principles. Following the principle of “equitable use”. Underpinned by the following guidelines:

- Provide the same means of use for all users: identical whenever possible; equivalent when not;
- Avoid segregating or stigmatizing any users;
- Provisions for privacy, security, and safety should be equally available to all users; and
- Make the design appealing to all users.

In brief these principles aim to simplify life for everyone by making the built environment more usable for a diversity of people at little to no additional cost.

13.4. Integrated Protective Security Systems

Planning, designing and modifying government facilities requires integrated protective security systems, as articulated in the Australian Government's Protective Security Policy Framework.

14. Acoustics

14.1. General

The Functional Design Brief includes the acoustic requirements for the facilities, including noise intrusion from external noise sources, allowable noise emissions to the environment and internal acoustic quality requirements.

As the brief is a high-level document, it will not address internal partition ratings for commercial/sports areas because these will need to be deigned as part of the detailed design process.

The Athletes' Accommodation will comply with the mandatory Building Code of Australia (BCA) requirements for Class 2 and Class 3 developments.

The Functional Design Brief has been prepared with reference to the following standards and codes:

- The ACT Territory Plan.
- The ACT National Capital Plan.
- The ACT Multi-Unit Housing Development Code.
- The ACT Environment Protection Regulation (2005), Part 3 Noise.
- The ACT Commercial Waste Industry Code of Practice (CWIC).
- The Roads ACT Noise Management Guidelines (NMG)
- AS/NZS 3671 Acoustics - Road Traffic Noise Intrusion Building Siting and Construction.
- AS/NZS 2107:2016 Acoustics – Recommended Design Sound Levels and Reverberation Times for Building Interiors.
- Association of Australasian Acoustical Consultants Guideline for Commercial Building Acoustics. (Version 2).
- AS 2670.2:1990 Evaluation of human exposure to whole-body vibration, Part 2: Continuous and shock-induced vibration in buildings (1 to 80 Hz). N.B. – Please note that this standard was superseded by Australian Standard ISO 2631.2:2014; however, it is accepted practice within the Australian market to adopt the multiplying factors (R) as presented in Table 2 within the standard for building vibration from human comfort.
- Australian Standard ISO 2631.2:2014 Mechanical vibration and shock – Evaluation of human exposure to whole-body vibration, Part 2: Vibration in buildings (1 to 80 Hz).
- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE Applications Handbook – Chapter 49 Noise & Vibration control.
- British Standard BS 6472: 2008 Guide to Evaluation of human exposure to vibration in buildings – Part 1: Vibration sources other than blasting.
- Colin G. Gordon 1991 – Generic Criteria for Vibration Sensitive Equipment
- Australian/New Zealand Standard 1668.1: 2015/AMDT 1:2018: The use of ventilation and air conditioning in buildings - Fire and smoke control in buildings.
- Occupational Health and Safety Regulations.
- National Construction Code (NCC), Building Code of Australia (BCA) 2019.

There are several requirements pertaining to Acoustic and Vibration performance and criteria. Where any particular requirements may differ, the most stringent requirement should be applied.

14.2. Design Requirements

14.2.1 NCA Requirements

The site is located within a NCA Designated Zone that forms part of the Australian Institute of Sport Precinct within the National Capital Plan. It is bounded by:

- NUZ3 Hills, Ridges and Buffers to the north, north-east and south-west.
- Designated land to the east and south with small pockets of CS5 mixed use and TSZ1 Services zones.
- CZ5 mixed use land to the west, which takes on residential noise limits, because it is surrounded by residential land.

These being the case, and considering the proposed developments, the Commercial Zones Development Code Zones Development Code and the Multi Unit Housing Development Code will be applicable to this development.

Section 6.9 Rule 67 of the Multi Unit Housing Development Code (6.9 Noise Attenuation – External Sources) will be the applicable criterion for the athlete accommodation building.

As the site is located within an RZ4 Medium Density Residential Zone, which is Noise Zone G, the relevant and appropriate ACT Environment Protection Regulation 2005 – Part 3 Noise standards would be applied during the detailed design phase of the facilities.

The facilities will be considered to be new developments on an existing road. As such the detailed design development process would apply the appropriate and relevant noise limits specified in the Roads ACT Noise Management Guidelines (2018) or as updated.

During construction the works will be required to comply with all relevant Construction Works AS and ACTEPR requirements and limits.

15. Electrical Services

15.1 Electrical Supply to Site

Capacity

The existing EvoEnergy infrastructure at Bruce is delivered via the Battye Feeder that originates from Belconnen Zone Substation and runs along Ginninderra Drive to reticulate along Battye Street. Whilst it is understood that there is sufficient network capacity for the new AIS facilities, this would need to be further assessed during the detailed development process in the context of additional new load demands under development such as the light rail extension and hospital expansion.

To increase the supply above the current level could potentially require the establishment of new 11kV feeders from Belconnen Zone Substation. It is considered that this is feasible and possible within the ASCs existing operational budget but requires planning.

Public Area Lighting

The public area lighting within the AIS site for the area servicing the new buildings will be designed in accordance with AS/NZS 1158 using the following categories.

- Mixed Pedestrian road traffic access Category PR3;
- Pedestrian pathways generally Category PP5;
- Pedestrian mall areas of higher prestige Category PR2;
- Car parks generally Category PC2;
- Car parking spaces reserved for persons with disabilities. Category PD.

Electrical Power Infrastructure within the Existing AIS site

The existing high voltage (HV) reticulation will need to be extended to supply the new buildings. This may require the establishment of five new substations and new low voltage supplies to the new and existing buildings.

The existing HV reticulation within the remainder of the AIS site consists of underground and aerial cabling that will need to be relocated to align with the new road reserves and in some cases to reinstate electrical supply to buildings that are retained as community facilities.

A section of underground HV cabling may need to be diverted to avoid the footprint of the Multi Sports Dome.

15.2 Athlete Accommodation

A new pad mounted substation may need to be established to supply the Multi Story Athlete Accommodation building. New mains cables will be run underground between the substation and a new outdoor main switchboard that will service the various transportable buildings that make up this facility.

A new pad mounted substation will likely have to be established to supply this building.

New underground consumer mains cables will be provided between the substation and the new weatherproof external switchboard.

The new main switchboard will provide with the following:

- Supply authority metering;
- 50% spare capacity with reference to circuit breaker capacity;

- 50% spare capacity with reference to consumer mains capacity;
- Provision for PV solar system of a capacity yet to be determined but dependent on the energy usage pattern;
- A safety services section to supply lifts, and fire services;
- Surge Diverters;
- Provision for active power factor correction and harmonic filtration;
- Metering to comply with the National Construction Code and the functional design brief; and
- Individual submains will be reticulated to each of the modular buildings including the main administration and security office.

Athlete Accommodation Electrical Reticulation

General light and power distribution boards are provided to the main building with the following requirements:

- Separate sections for lighting, power and lighting control equipment;
- Metering of the lighting and power chassis;
- 33% spare capacity;
- The distribution board zoning will be provided to suit the functionality of the various areas and consider final sub circuit voltage drop requirements and their respective loads;
- Sub main cables will be sized to service the load plus 33% spare capacity; and
- Sub main cables will be run underground.

Each individual accommodation unit will have a small switchboard with combined electrical, power and mechanical services supplies.

Athlete Accommodation General Lighting

General lighting will utilize LED technology throughout. Lighting control shall be a combination of switching and motion sensors to suit the usage of the space.

Athlete Accommodation General Power

General power will be provided throughout the Athlete Accommodation building.

Athlete Accommodation Codes and Standards

The electrical services will be designed to comply with the following key standards:

- AS NZS 1768 Lightning Protection;
- AS NZS 1680 (set) Interior Lighting;
- AS NZS 2293 (set) Emergency Evacuation Lighting;
- AS NZS 3008.1.1 Electrical Installations - Selection of cables;
- AS NZS 3000 Wiring Rules;
- AS NZS 3012 Electrical Installations – Construction Demolition sites;
- AS 3137 Luminaries;
- AS NZS 61439.1-2019 Low-voltage switchgear and control gear assemblies - General rules (IEC 61439-1 Ed. 2.0;
- AS NZS 61439.2-2019 Low-voltage switchgear and control gear assemblies - Power switchgear and control gear assemblies;

- AS NZS 61439.3-2019 Low-voltage switchgear and control gear assemblies - Distribution boards intended to be operated by ordinary persons;
- AS 4296 Ducted Wiring Enclosures;
- Supply Authority Electrical Installations Rules;
- Occupational Health and Safety Act and Standards;
- Occupational, Health and Welfare Legislation;
- Work, Health & Safety Legislation;
- Commonwealth Government Employment Code of Practice (Office and Amenities Guidelines);
- All local Supply Authority Installation and Service Rules; and
- All applicable State, Territory and Commonwealth legislation;

15.3 Multi Sports Dome

A new pad mounted substation will be established to service this facility. New mains cables will be run underground to the main switchboard within the facility.

Multi Sports Dome Electrical Supply and Main Switchboards

A new pad mounted substation will need to be established to supply this building.

Underground consumer mains cables will be provided between the substation and the new main switchboards located in main switch room at ground level.

The new main switchboards will be provided with the following:

- Supply authority metering;
- 50% spare capacity with reference to circuit breaker capacity;
- 50% spare capacity with reference to consumer mains;
- A safety services section to supply lifts, and fire services;
- Surge Diverters; and
- Metering to comply with the National Construction Code and the functional design brief.

Multi Sports Dome Mechanical Plant

The mechanical plant will require approximately 500kW of electrical power. Dedicated low voltage submains will be supplied from the main switchboard to the inflation system and dedicated mechanical switchboards. The controls and wiring for the mechanical and inflation system will be part of the mechanical services installation.

Multi Sports Dome Electrical Reticulation

General light and power distribution boards are provided to service the building and will be provided with the following:

- Separate sections for lighting, power and lighting control equipment;
- Metering of the lighting and power chassis;
- 33% spare capacity;
- The distribution board zoning will be provided to suit the functionality of the various areas and consider final sub circuit voltage drop requirements and their respective loads;
- Sub main cables will be sized to service the load plus 33% spare capacity; and

- Sub main cables will be installed on dedicated electrical cable ladders located in areas to avoid issues with electromagnetic interference.

Multi Sports Dome General Lighting

General lighting will be provided to the dome area as part of the overall dome design. The lighting will utilize LED technology and will be "flicker-free" to accommodate slow motion video capture.

Emergency evacuation lighting will be provided to meet the requirements of the BCA.

Multi Sports Dome General Power

General power will be provided to the building. General power provisions will be provided throughout the dome via inground conduiting to strategic locations.

Multi Sports Dome Lightning Protection

Primary surge protection is provided at the main switchboard and secondary surge protection is provided at distribution boards.

Multi Sports Dome Codes and Standards

The electrical services will be designed to comply with the following key standards:

- AS NZS 1768 Lightning Protection;
- AS NZS1680 Interior Lighting;
- AS 1939 Degrees of Protection;
- AS NZS 2293 Emergency Evacuation Lighting;
- AS/NZS 2982 Laboratory design and construction;
- AS NZS 3008.1.1 Electrical Installations - Selection of cables;
- AS NZS 3000 SAA Wiring Rules;
- AS NZS 3003 SAA Electrical Installations – Patient areas;
- AS NZS 3012 Electrical Installations – Construction Demolition sites;
- AS 3137 Luminaries;
- AS NZS 61439.1-2016 Low-voltage switchgear and control gear assemblies - General rules (IEC 61439-1 Ed. 2.0;
- AS NZS 61439.2-2016 Low-voltage switchgear and control gear assemblies - Power switchgear and control gear assemblies;
- AS NZS 61439.3-2016 Low-voltage switchgear and control gear assemblies - Distribution boards intended to be operated by ordinary persons;
- AS 4296 Ducted Wiring Enclosures;
- Supply Authority Electrical Installations Rules;
- Occupational Health and Safety Act and Standards;
- Occupational, Health and Welfare Legislation;
- Work, Health & Safety Legislation;
- Commonwealth Government Employment Code of Practice (Office and Amenities Guidelines);
- All local Supply Authority Installation and Service Rules;
- All applicable state, territory and commonwealth legislation;
- AS 1345: Identification of the contents of pipes, conduits and ducts;
- AS 2053: Conduits and fittings for electrical installations;

- AS 2211: Safety of Laser products;
- AS 2834: Computer accommodation;
- AS 3996: Metal access covers, road grates and frames;
- AS 4117: Surge Protective Devices for Telecommunications Applications;

15.4 High Performance Functional Training and Support Centre (HPTTC)

HPTTC Electrical Supply and Main Switchboards

New twin pad mounted substations will be established to supply this building. These substations will likely be located near the main switch room to reduce cable sizes and voltage drop.

Consumer mains cables will be provided between the substations and the new main switchboards located in a fire rated main switch room at ground level.

A new main switchboard will be provided with the following:

- Supply authority metering;
- 50% spare capacity with reference to circuit breaker capacity;
- 50% spare capacity with reference to consumer mains capacity;
- Provision for PV solar system of a capacity yet to be determined but dependent on the energy usage pattern;
- A safety services section to supply lifts, and fire services;
- Surge Diverters;
- Provision for active power factor correction and harmonic filtration;
- Metering to comply with the National Construction Code and the functional design brief; and
- Individual submains will be reticulated to each of the modular buildings including the main administration and security office.

HPTTC Electrical Reticulation

General light and power distribution boards are provided to service the adjacent areas and will be provided with the following:

- Separate sections for lighting, power and lighting control equipment.
- Metering of the lighting and power chassis;
- 33% spare capacity;
- The distribution board zoning will be provided to suit the functionality of the various areas and consider final sub circuit voltage drop requirements and their respective loads;
- Sub main cables will be sized to service the load plus 33% spare capacity; and
- Sub main cables will be installed on dedicated electrical cable ladders located in areas to avoid issues with electromagnetic interference. A new chamber substation will likely need to be provided as part of the HPTTC to supply the building.

HPTTC General Lighting

General lighting will utilise LED technology with suitable colour rendering for the application.

The Lighting control system will be incorporating movement sensors and daylight control where appropriate.

Emergency evacuation lighting will be LED based on single point centrally monitored system. The system and installation will comply with AS/NZS 2293.1.

HPTTC General Power

General and special power will be provided as described in the detailed room data sheets developed during the detailed design process.

HPTTC Lightning Protection

The building will be provided with building protection to AS/NZS 1768.

Primary surge protection is provided at the main switchboard and secondary surge protection is provided at distribution boards.

HPTTC Physio and Imaging Areas

The electrical installations in the physio and imaging tenancies and consulting rooms are considered to be Patient areas. The electrical installations in the patient areas of these areas will be installed to “Body Protected” standards in accordance with AS/NZS 3003 Electrical Installations Patient areas.

The electrical installations in patient treatment areas will include hospital style service ducts fitted with power, communications, patient call and provision for medical gasses.

HPTTC Laboratory Areas

The electrical installations in the laboratory areas will be installed to the relevant sections of AS/NZS 2982 Laboratory design and construction.

HPTTC Codes and Standards

The electrical services will be designed to comply with the following key standards:

- AS NZS 1768 Lightning Protection;
- AS NZS1680 (set) Interior Lighting;
- AS 1939 Degrees of Protection;
- AS NZS 2293 (set) Emergency Evacuation Lighting.
- AS/NZS 2982 Laboratory design and construction;
- AS NZS 3008.1.1 Electrical Installations - Selection of cables;
- AS NZS 3000 Wiring Rules;
- AS NZS 3003 Electrical Installations – Patient areas;
- AS NZS 3012 Electrical Installations – Construction Demolition sites;
- AS 3137 Luminaries;
- AS NZS 61439.1-2019 Low-voltage switchgear and control gear assemblies - General rules (IEC 61439-1 Ed. 2.0;
- AS NZS 61439.2-2019 Low-voltage switchgear and control gear assemblies - Power switchgear and control gear assemblies;

- AS NZS 61439.3-2019 Low-voltage switchgear and control gear assemblies - Distribution boards intended to be operated by ordinary persons;
- AS 4296 Ducted Wiring Enclosures;
- Supply Authority Electrical Installations Rules;
- Occupational Health and Safety Act and Standards;
- Occupational, Health and Welfare Legislation;
- Work, Health & Safety Legislation;
- Commonwealth Government Employment Code of Practice (Office and Amenities Guidelines);
- All local Supply Authority Installation and Service Rules; and
- All applicable State, Territory and Commonwealth legislation.

16. Fire Services

16.1 Fire Services General Requirements

All new buildings are to have fire services installed to the latest version of the NCC, relevant Australian standards, and design briefs. The fire services can include an automatic fire sprinkler system, fire detection system, fire extinguishers and an occupant warning or Emergency Warning and Intercommunication System (EWIS). It is to be noted that fire hose reels and fire hydrants will be provided in the scope of hydraulic services, while smoke alarms in the Athlete Accommodation areas will be provided in the scope of electrical services.

An automatic fire sprinkler system may be installed to extinguish or suppress a fire in the case of a fire event. An automatic fire sprinkler system typically consists of a water supply, fire brigade booster, control valves, testing apparatus, drain points and remote test points. An automatic fire sprinkler system is to be installed to AS2118.1 – 2017. The location and specifications of the fire sprinkler heads may be determined by the hazard, and the risk involved and will be assessed in the detailed design phase.

A fire detection system activates on the detection of smoke produced by a fire event. During such an event the fire detection control and indicating equipment (FDCIE) will receive an alarm and signal the evacuation system, notifying the fire brigade and signalling the Emergency intercom and control and indicating equipment (EWCIE) if required. A fire detection system is to be installed to AS1670.1-2018.

An occupant warning system or EWIS system is necessary to provide alert to assist the evacuation. An occupant warning system may be comprised of speakers, horns, and visual alarm devices. An EWIS system is capable of providing a staged evacuation, and may utilize warden intercom phones and manual call points in addition to an occupant warning system. An occupant warning system is to be installed to AS1670.1-2018, while an EWIS system is to be installed to AS1670.4-2018.

Fire extinguishers are installed in all areas as defined in the National Construction Code. The location, type and size is determined by AS 2444 – 2001.

16.2 Fire Services Water Supply

In Canberra, the water supply is typically adequate to supply a sprinkler or fire hydrant system to the buildings at the AIS. The town's pressure and flow rate have been requested to ICON water authority and will need to be received and assessed during the detailed design phase.

Subject to detailed design findings, fire pumps will not be provided for the sprinkler or hydrant system in any proposed building. Fire pumps and a water break tank will be proposed for the fire monitors provided in the Multi Sports Dome building.

16.3 Fire Design Criteria

The fire services for the three facilities will comply with all current Australian Standards and statutory requirements/guidelines of the relevant Authorities (except where varied by an alternative solution developed in the detailed design phase) including (but not limited to) the following:

- NCC - 2019 (Volumes 1 Amd 1) - National Construction Code: Class 2 to 9 buildings;

- AS 1670.1-2018 - Fire Detection, Warning, Control, and Intercom Systems – System Design, Installation and Commissioning;
- AS 1670.4-2018 - Fire detection, warning, control and intercom systems - System design, installation and commissioning - Part 4: Emergency warning and intercom systems;
- AS 2118.1-2017 - Automatic fire sprinkler systems - Part 1: General requirements; and
- AS 2444-2001 - Portable fire extinguishers and fire blankets - Selection and location.

Athlete Accommodation

An automatic smoke detection or sprinkler system will be required and will be provided in the electrical package or pre-manufactured package in accordance with the appropriate and relevant standards.

Fire extinguishers and blankets will be required and installed in accordance with the relevant standards. ABE Extinguishers and Fire Blankets will be required in kitchenette/breakout areas and a 5kg CO_2 extinguisher will be installed within 2m to 20m from each significant switchboard and/or electrical risk.

Multi Sports Dome

The Multi Sports Dome comprises an air-supported structure. The Multi Sports Dome is proposed to accommodate its operations for indoor sports activities, including the auxiliary lab, physiology, change rooms, storage and meeting rooms.

The Multi Sports Dome may be considered a temporary structure or a Class 9b building. Generally, the temporary structure building will not require fixed detection or sprinkler systems, subject to confirmation during the detailed design phase and the BCA certifier's confirmation.

At the cost estimate stage, the Multi Sports Dome is presumed to be a class 9b large-isolated building, subject to the BCA certifier's confirmation. Generally, the sprinkler and perimeter vehicle access are required for such a 9b large-isolated building. However, it is impractical to provide the sprinkler system underneath the fabric roof structure. From project practice, fire monitors can be provided as a suitable fire suppression system for a high fire risk large-isolated yard or indoor areas. Notably, the fire monitors will need to be addressed in a fire alternative solution as this fire suppression system is not listed in Australian standards.

Assuming that the building may be classified as a class 9b large-isolated building, fire monitors will be allowed at the current stage, subject to the future fire alternative solution. Accordingly, fire pumps and a water break tank will be provided for the operation of fire monitors.
Two options have been proposed for the locations of a fire pump room and a water break tank:

- Option 1: At the front of the Multi Sports Dome adjacent to the east carpark areas
- Option 2: At the mechanical plant at the rear side of the Multi Sports Dome

The fire water tank will need to be located at a minimum of 10m from adjacent buildings. The fire pump room will need to be located at a minimum of 6m from adjacent buildings and shall be located within 20m from a hardstand area.

The fire detection system will be required to the Multi Sports Dome to shut down the mechanical air handling equipment in accordance with AS1670.1-2018.

A new FDCIE will be required in designated entry area. The fire detection system includes detectors, manual call points and interfaces with mechanical, building management system (BMS) and security services.

Fire trips will be allowed to the new mechanical services switchboards to shut down mechanical system upon a fire alarm. Fire trips also will be provided to the new security system to release the security doors upon a fire alarm.

The EWIS system will be required to the Multi Sports Dome to assist the evacuation in a fire event.

A new EWCIE will be required in designated entry area. The EWIS system includes warden intercom phone (WIP), Speakers, horns, and visual alarm devices.

Fire extinguishers and blankets will be required for the one storey accommodation buildings in accordance with AS2444-2001. ABE Extinguishers and Fire Blankets will be required in kitchenette/breakout areas within the reception building. A 5kg CO_2 extinguisher will be installed within 2m to 20m from each significant switchboard and/or electrical risk.

High Performance Training and Testing Centre

The HPTTC comprises sports medicine, sports performance and education, science, testing areas and medical amenities. The centre is presumed to be a multi-classification building, including a class 9a part (medical), class 5 part (offices), class 8 (labs), class 7b (storage) and class 9b part (Gym and training), tom be confirmed during the detailed design phase and subject to the BCA certifier’s confirmation.

Generally, a class 9a building will require a sprinkler system if the building is greater than 2 stories or used as a residential care building. As the building currently has a plant room on the level 2, which will not be deemed as a storey in accordance with NCC provisions. Accordingly, a rise in storey of 2 has been assumed for SSMFT building at the current stage (subject to the BCA certifier's confirmation). An automatic sprinkler system may not be required from a Deem-to-Satisfy solution. However, multiple circulation voids are observed to connect the Ground floor and level 1, which may exceed the maximum fire compartment size.

A fire sprinkler system is generally an alternative solution to address the oversized fire compartment. Although the classification and rise in storey are subject to confirmation during the detailed design phase, considering the multiple classifications and potentially oversized fire compartments, an automatic fire sprinkler system will thus be proposed at the current stage.

The fire detection system will be required to the SSMFT Centre in accordance with AS1670.1-2018.

A new FDCIE will be required in designated entry area. The fire detection system includes detectors, manual call points and interfaces with mechanical, BMS and security services. Concealed Smoke Detectors will be required in ceiling spaces exceeding 800mm and within 1.5m of all electrical equipment in accordance with 1670.1-2018.

Fire trips will be allowed to the new mechanical services switchboards to shut down mechanical system upon a fire alarm. Fire trips also will be provided to the new security system to release the security doors upon a fire alarm.

The EWIS system will be required to the SSMFT Centre to assist the evacuation in a fire event.

A new EWCIE will be required in designated entry area. The EWIS system includes WIP, speakers, horns, and visual alarm devices.

Fire extinguishers and blankets will be required for any one storey accommodation buildings in accordance with AS2444-2001. ABE Extinguishers and Fire Blankets will be required in kitchenette/breakout areas within the reception building. A 5kg CO_2 extinguisher will be installed within 2m to 20m from each significant switchboard and/or electrical risk.

17.Cost-effectiveness and Public Value

17.1 Cost

Rider Levett Bucknall (RLB) was retained by the ASC to provide expert advice regarding the detailed costing of the development and building of the three priority facilities. These P80 Confidence Cost Estimates were prepared to indicate the capital cost requirements within 80% certainty of not being exceeded.

In August 2024, RLB reconfirmed the P80 Capital Cost estimates for the following facilities:

- 194 Bed Multi Story Athlete Accommodation;
- Multi Purpose Indoor Sporting Dome & Associated Buildings; and
- High Performance Training and Testing Centre Building.

RLB estimated that $249.7 million was the appropriate P80 capital cost allowance for the development and delivery of all three of the priority facilities.

These include allowances for ASC contract management, authority charges, escalation and risk (based upon Monte-Carlo simulation).

These P80 Cost estimates were based upon architectural drawings and Functional Design Bried as prepared by Populous and provided to RLB and were also used to support the 2024-25 Budget approved capital funding proposal.

RLB's P80 costing included allowances for:

- Clearing of the land and minor earthworks to enable development (all demolition excluded);
- Urban public space landscaping including upgrades to the existing hard and soft landscaping around the new buildings;
- Water reticulation, stormwater and sewer drainage, electrical reticulation, natural gas reticulation, security, and communications reticulation; and

Specifically, for the respective facilities:

Multi Sports Dome Facility:

- Dome supply and installation, including substructure;
- Synthetic football pitch and 2-lane athletic track surround with 4-lane straight; and
- Civil works to existing swale.
- ACOR provided in early December 2022 indicative cost estimates for building services including electrical, mechanical, fire, communications and data, audio visual, lifts and security.

Athlete Accommodation:

- ACOR Consulting Engineers (ACOR) provided in early 2019 indicative cost estimates for building services including electrical, mechanical, fire, communications and data, audio visual, lifts and security. These costs have been interpolated and updated to the date of this estimate; and
- JB Design Studio as structural engineers provided in June 2021 indicative structural advice based upon the previous 194-bed proposal.

HPTTC

- ACOR provided in June 2021 indicative structural advice based upon a larger 11,000m2 proposal. As no further design advice has been provided for the current proposal, the previous advice has been interpolated for this proposal.

Items specifically included for all facilities:

- The cost of trade preliminaries such as final cleaning, hoarding and scaffolding is included within the trade rates.
- Escalation allowances to reflect the full capital costs at the time of completion have been included based upon the program of works. Escalation is separated between that occurring prior to the start of construction and to that during construction. Escalation for across the three facilities is between 6.3% - 7.9%. These rates are based upon internal market researched data for the ACT provided by RLB's internal R&D team for medium term projects and applied against individual elements of the delivered works.

17.2 Public value

The benefits of the Project options extend beyond the financial or economic benefits of that might derive from the new facilities. In 2019, these benefits were assessed by SGS Economics and Planning (SGS) within the framework of a socio-economic analysis and Cost Benefit Analysis (CBA).

Sporting success at international events has far reaching benefits. At a personal level for the athletes and support staff involved, bringing communities together and invoking a national sense of pride, inspiring future generations to pursue a lifelong love of sport regardless of the competition level. However, this success can also contribute to wider social benefits for the Australian community.

SGS found that the impacts the AIS Redevelopment Options (most similar to this project) were:

	Impact, Likelihood, Consequence
Social	
Improved international sporting success by elite athletes.	Positive Highly likely Significant
Improved community participation in sports and physical activities, and consequent physical and mental wellbeing improvements.	Positive Likely Moderate
Improved community pride	Positive Highly Likely Small
Improved strength of sporting bodies	Positive Highly Likely Significant
Improved local community access to quality sporting facilities.	Positive Likely Moderate
Economic	
Improved research innovations linked with precinct clustering effects	Positive Likely Moderate
Improved international reputation for Australia in sports research capabilities	Positive Likely Moderate
Improved destination appeal of Australia for hosting major sporting events, sports industries and tourism more broadly.	Positive Likely Significant
Increased demand for Australian sports industry producers.	Positive Likely Significant
Sustainable financial performance of AIS	Positive Somewhat likely Significant
Political	
The precinct is in a neutral, central location; not favouring any state or territory.	Positive Likely Significant
The precinct promotes quality working relationships with national legislator.	Positive Likely Moderate
Improved alignment of research and development programs with Federal policy aspirations.	Positive Somewhat Likely Small
Improved alignment with research innovation and Federal strategies	Positive Somewhat Likely Small
Improved sports diplomacy opportunities.	Positive Highly likely Moderate

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Appendix A

A fit for purpose Australian Institute of Sport: An independent review

A fit for purpose Australian Institute of Sport:

An independent review

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Cover Image

Cover images courtesy of the Australian Sports Commission, 2024.

Cover image one depicts the forecourt of the AIS Bruce facility in the evening, with a metallic statue of two gymnasts in the foreground.

Cover image two depicts the inside of a large gymnasium at the Australian Institute of Sport with exercise equipment, and a running track in the lower right-hand corner. On the track is a person with a skipping rope.

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Foreword

The Hon. Catherine King MP
Minister for Infrastructure, Transport, Regional Development and Local Government

The Hon. Anika Wells MP
Minister for Aged Care and Sport

31 January 2024

Dear Ministers

We are pleased to present you with the final report of the Independent Review (the Review) of the Australian Institute of Sport (AIS) Infrastructure.

The final report addresses the Terms of Reference in which you asked us to consider how best to invest in sports facilities to ensure that the AIS remains fit-for-purpose in supporting high-performance athletes. This is in the context of a national approach that supports international competitiveness and achieving success at upcoming major sporting events, including in the lead up to the Brisbane 2032 Olympic and Paralympic Games and beyond.

The AIS is a much loved and respected national institution. When it was established in 1981 it was unique in its focus on high-performance, sport science and high-performance training methods. It was so successful that it was replicated by sporting nations around the world and became the benchmark model to achieve sporting success.

However, in 2023 many of its facilities at the Bruce campus are now tired, not fit-for-purpose and in particular, non-compliant with the needs of para-athletes. In addition, the national High-Performance Sport System has also evolved to support decentralised training options around the country, allowing athletes to remain closer to families and communities for their daily training regimes. In this context, we were also asked to review the current AIS infrastructure and provide advice on strategic investment in additional or replacement high-performance facilities that would support and align with the strategy developed by the Australian Sports Commission to optimise outcomes and sustainable success for Summer and Winter Olympic and Paralympic and Commonwealth Games sports, Australia's *High Performance 2032+ Sport Strategy.*[1]

In conducting the Review, we consulted widely and extensively, including through one-on-one consultations with over 50 groups representing all the major sports, the Australian Olympic Committee, Paralympics Australia, Commonwealth Games Australia, Sport Integrity Australia (SIA), state and territory based institutes and academies, the Australian Sports Commission, elite coaches and athletes including current and former Olympians, Paralympians, ancillary professionals, government officials and industry veterans. We established an online consultation portal, 'Have your say', and received more than 20 written submissions.[2]

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[1] WinWell 2032, *2032+ Australia's High-Performance Sport Strategy*, WinWell 2032, 2022, accessed 18 August 2023.
[2] Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA), *A fit for purpose Australian Institute of Sport*, DITRDCA website, 2023, accessed 31 January 2024.

Interest and engagement throughout the Review process was very strong, reflecting the high regard and importance placed on the AIS.

Our report makes 12 recommendations to the government. As we progressed through the Review it became apparent that there are two distinct areas for consideration. The first, which is the subject of this Review, is the condition of the physical infrastructure supporting the AIS and its strategic fit for the *High-Performance 2032+ Sport Strategy*. The second, and as important, is the effectiveness of the current operating model and the referrals and arrangements between the AIS and the various state and territory based National Sporting Institutions, the National Institute Network. In accordance with the Terms of Reference, we have limited our review to the former but feedback we received was that the current operating model could be more streamlined to eradicate duplication.

In addition to stakeholder views and aspirations, these recommendations have been informed by high-level financial modelling and analysis of appropriate accommodation for athletes and staff at the AIS undertaken by Ernst and Young (EY) under a range of possible scenarios. We have also relied on work done previously by Populous, a well-regarded consultant with solid and extensive experience and expertise in sports infrastructure design and delivery, and previous businesses cases and masterplans prepared by the AIS.

The recommendations focus on what we have concluded is needed to make the AIS campus at Bruce fit-for-purpose for 2032 and beyond and to deliver on its purpose of providing a world best high-performance facility for our elite athletes.

We intend these recommendations to be robust and practical and we have prioritised them to assist the government in future decision making.

We would like to express our thanks to all the people and organisations who have contributed their valuable time and thoughtful insights to the Review along with the team of officers in the Review Secretariat from the Department of Infrastructure, Transport, Regional Development, Communications and the Arts, who have provided invaluable support throughout the Review process.

Yours sincerely

Robyn Smith OAM

Erin Flaherty

Glossary of terms

Abbreviation	Full Form
ACT	Australian Capital Territory
AIS	Australian Institute of Sport
AOC	Australian Olympic Committee
APL	Australian Professional Leagues
APS	Australian Public Service
ASC	Australian Sports Commission
Brisbane 2032	Olympic and Paralympic Games Brisbane 2032
CGA	Commonwealth Games Australia
CIT	Canberra Institute of Technology
CoE	Centre of Excellence
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DBC	Detailed Business Case
Defence	Department of Defence
DFAT	Department of Foreign Affairs and Trade
DITRDCA	Department of Infrastructure, Transport, Regional Development, Communications and the Arts
EY	Ernst and Young
GPS	Global Positioning System
HP 2032+ Sport Strategy	Australia's High-Performance 2032+ Sport Strategy
HP sport system	Australia's High-Performance sport system
MYEFO	Mid-Year Economic and Fiscal Outlook
NCA	National Capital Authority
NSOs	National sporting organisations Nationally recognised organisations for Olympic, Paralympic and Commonwealth Games sports and through them their relevant State Sporting Organisations
NSODs	National sporting organisations for people with disability
NIN	National Institute Network The AIS and eight state and territory based Institutes and Academies of Sport, representing federal, state and territory Governments
PA	Paralympics Australia

Abbreviation	Full Form
SA	South Australia
SASI	South Australian Sports Institute
SEQ	South-East Queensland
SIA	Sport Integrity Australia
UC	University of Canberra

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1. Executive summary

Since the inception of the Australian Institute of Sport (AIS) in 1981, the Australian High-Performance sport system (HP sport system) has evolved to a decentralised model with high-performance facilities in each state and territory. The most commercialised sports with high value broadcasting deals, including the rugby codes, Australian Football League (AFL), cricket, swimming and tennis, have also developed their own high-performance facilities.

However, the AIS, which has contributed to our past Olympic and Paralympic successes, remains crucial. It provides an essential spine to our decentralised HP sport system. It also possesses unique facilities (including on-site accommodation that features in most international benchmark facilities) for which state-based facilities are not resourced. The AIS is also critical for smaller sports, including for example, combat sports, winter sports and 'millennial sports' like skate, sport climbing and mountain biking. These sports are all likely to feature in the Olympic and Paralympic Games leading up to and including Brisbane 2032, and include significant medal prospects.

The AIS should remain at Bruce

The Review found that the AIS should remain located at its current site in Bruce, Australian Capital Territory (ACT), with an urgent need for revitalisation and rationalisation to create a stronger spine within the existing, decentralised HP sport system. Evidence from previous business cases was considered. The Review supports the view that neither closing and divesting the AIS, nor maintaining existing assets as they are, would support the current functions and strategy of the Australian Sports Commission (ASC) or the *High-Performance 2032+ Sport Strategy* (HP 2032+ Sport Strategy).

There was broad-based support from stakeholders that, with its combination of purpose-built infrastructure, integrated accommodation and sport science support, the AIS campus at Bruce had unique attributes as a high performance facility. The level terrain at Bruce also creates a strong foundation for becoming an internationally recognised Centre of Excellence (CoE) for para-athletes. The proposed priority investments (outlined below) all support this outcome.

The Review supports the findings from the ASC that relocation options would cost in excess of $1 billion in initial capital investment, with significant development risk. Furthermore, no other state or territory is proposing a relocation plan. There is no detailed alternative, costed proposal or committed funding. It is clear that any relocation would compromise athlete preparations for Brisbane 2032.

Revitalisation and rationalisation of the Bruce facility is urgent

To support preparedness for Brisbane 2032, revitalisation and rationalisation of the Bruce campus is urgent.

AIS accommodation was seen by the vast majority of stakeholders as critical to the AIS. Key benefits include mixing with other high-performance athletes and forging the strongest possible team culture (a point emphasised by both Archery Australia and Skate Australia). Existing accommodation is of an extremely poor standard, not para-accessible, or compliant with modern building codes. Planning, approval and construction timelines for the delivery of any significant new infrastructure require immediate funding decisions if facilities are to support Brisbane 2032 athlete preparations. This point was frequently made by stakeholders.

Priority investments

Detailed review of asset condition information, and wide-ranging stakeholder feedback, also reveals a critical need for investment in new facilities if the AIS is to achieve 'world best' as a genuine high-performance facility. Australian teams, in all Olympic and Paralympic disciplines, automatically qualify for Brisbane 2032. This will have a commensurate significant increase in demand so it is important that proposed investments support team-based sports.

However, a tightly prioritised approach is also necessary. After detailed review of the ASC's AIS 2023 Detailed Business Case (DBC), and AIS data on facility use, the three priority investments recommended by the Review are:

- A multi-story, accessible 250 bed accommodation facility that delivers superior value-for-money compared to previous options (indicative 2023-24 cost of $85 million). While not compromising amenity, this proposal is supported by EY modelling, including with respect to possible commercialisation/government equity options.
- A Multi-Sports Dome which would provide a fully para-accessible, climate controlled multi-disciplinary indoor training, testing and analysis space that is unique in Australia. This would support both track and field (through an adjusted athletics track and jumps and throwing areas) and all rectangular football codes. EY analysis supported the reasonableness of the indicative 2024-25 costing of $83 million, but noted high risks due to the uniqueness of the structure and proposed examining the merits of moving away from proprietary structures towards designs that could be competitively procured.
- Construction of a rescoped High-Performance Training and Testing Centre within an indicative $70m budget envelope that would replace ageing assets, including the gymnastics hall (thus reducing maintenance expenses). This would support the HP 2032+ Sport Strategy, including by providing particular support to gymnastics, winter sports and newer 'millennial' sports which lack suitable facilities elsewhere in Australia (e.g. skate, sport climbing, mountain bike and aerial sports).

The Review supports the Sports Innovation Hub concept but does not recommend an allocation of funding at this time. Collaboration with universities and other Centres of Excellence should be part of 'business as usual' for the AIS. Any further proposals should be developed to a point where co-contributions from third parties can be defined prior to any consideration by government. Of note is the South Australian Sports Institute (SASI) and University of South Australia Sport Science Hub proposal ($68 million South Australian Government funding and $20 million University of South Australia funding).

The announcement and phasing recommended for these investments encompasses $10 million for second pass business cases (including site investigation and approval pathways) in 2024-25, with construction in 2025-26 and 2026-27. This would give certainty to the AIS, and broader high-performance stakeholders as to agreed investments and in relation to Brisbane 2032 readiness. It would also allow time for the detailed planning, site investigations and approvals work to be undertaken to support on-time, on-budget delivery.

Alternative Financing Options are constrained by uncertainty of revenue

In considering commercial and financial options, including through EY accommodation modelling, the Review found that key constraints are the uncertainty of revenue streams for assets with the highest commercial potential, including accommodation, rehabilitation and conditioning, and the AIS Arena. Historically, a lack of commercial focus has seen developments like sport global positioning system (GPS) tracking devices and swimming timer touch plates developed at the AIS and commercialised by others.

The recommended approach is to establish a commercial division within the AIS to develop a strategy for commercialising research, informed by Commonwealth Scientific and Industrial Research Organisation (CSIRO) experience. A four-year window could be used to prove the revenue stream from the most commercial assets. A report could then be made to the Expenditure Review Committee of Cabinet on any monetisation options, including divestment.

The ASC is solvent but needs a revised divestment, decommissioning and consolidation strategy

On the basis of information accessed, the Review found that the ASC is currently solvent, with sufficient current assets to meet current liabilities. The ASC advised that on the basis of current budgeting and spending practices, cash reserves are not expected to run out until the early 2030s. Shortfalls in depreciation funding relative to necessary minimum maintenance expense are not unique to the ASC. They are related to whole-of-government funding policy for depreciation.

The AIS clearly has significant land divestment options, given its 65-hectare site but is constrained by current 'national capital use' zoning. Land should only be divested as part of a broader masterplan with appropriate zoning. This should support both the financial sustainability of the AIS and broader community outcomes, including Paralympic excellence, social housing and quality jobs.

To reduce financial pressures, minimise the need for significant capital funding injections from government, and support maintenance of priority assets beyond 2032, the ASC should provide a revised divestment, decommissioning and consolidation strategy by the end of 2024.. This should cover the high-performance facilities that have not been considered in detail by this Review due to time pressures. It should also include high cost community use facilities, e.g. GIO Stadium Canberra and adjacent land (noting the ACT Government aspiration for a Bruce precinct health and sports innovation corridor).

AIS: Building partnerships and innovation with the community

To create a sustainable AIS into the future, the AIS should:

- Look to build relationships with entities including Department of Defence (Defence) (both in the context of armed forces training and the Invictus Games) and the Department of Foreign Affairs and Trade (DFAT) (in support of Pacific Diplomacy through supported high-performance training opportunities).
- Continue to develop relationships with commercial sporting codes and teams, which can be based around non-subsidised charge out rates. The Review received submissions from both the Australian Professional Leagues (APL) (in relation to soccer) and the ACT Brumbies Rugby Union team that are representative of the interest and opportunity.
- Work with First Nations organisations to promote and support sports camps for Indigenous athletes in a culturally safe environment.
- Review opportunities for allied health services and professionals to establish a presence in the under-utilised AIS buildings.
- Expand the opportunity for learning and engagement through the Year 6 school programs.

The AIS is one of the largest Australian Public Service (APS) gas users in Canberra and is not on track to meet net zero greenhouse emissions and sustainability commitments of the Australian Government, including a Net Zero APS by 2030. As a first step, prior to coming to Government in late 2024, it should undertake a comprehensive energy audit of the AIS Bruce campus and consider on-site generation opportunities.

2. Recommendations

Recommendation 1: Canberra and the AIS

The AIS residential campus delivery model at Bruce should be retained and remain at its present location in Canberra, revitalised and rationalised.

There was broad based support for the AIS residential campus delivery model at Bruce to continue as the CoE for high-performance athletes and as a fundamental spine supporting Australia's HP sport system and the HP 2032+ Sport Strategy, if it were to be upgraded.

The Bruce campus with its large-scale training facilities, education integration, research, and medical services together with onsite athlete accommodation is a unique environment that cannot be replicated elsewhere without substantial re-establishment costs and significant development and execution risks, including land availability, construction capacity constraints and project delivery issues.

Recommendation 2: A new Athletes' Village at Bruce

The existing Athletes' Village should be demolished (with attention paid to optimising results for embedded carbon) and replaced with an inclusive, accessible multi-storey accommodation facility capable of housing 250 athletes in various room configurations that accommodate athletes and their families and or carers.

Given the potential for future commercialisation opportunities around greater utilisation of the AIS at Bruce by team sports and professional codes, a 400-bed facility should also be modelled and costed.

Design principles must incorporate Indigenous cultural practices informed by and led by local traditional owners, Ngunnawal and Ngambri, together with Indigenous elite athletes with lived experience.

The Review noted an indicative capital cost of $85 million which would need to be reviewed and confirmed in the final business case.

Recommendation 3: Investment in a new Multi-Sports Dome at Bruce

The Review recommends investment in a Multi-Sports Dome to provide an all-weather, indoor training facility, with integrated facilities for testing and analysis.

The Multi-Sports Dome can be climate controlled to replicate various climatic conditions including a safe controlled thermoregulated environment for para-athletes. It would include a four lane, modified athletics track, jumps and throwing areas, a full-sized synthetic field suitable for various football codes, multi-sport training and supporting engineering and sport science capabilities. It would be the first such facility in Australia.

The Review noted the indicative, updated capital cost of $83 million would need to be reviewed and confirmed in the final business case.

Recommendation 4: Investment in a new High-Performance Training and Testing Centre at Bruce

The Review considered that a new High-Performance Training and Testing Centre incorporating applied sport science and sports medicine was preferable to refurbishment of existing degraded buildings.

The new Training and Testing Centre would accommodate a combination of sports, including gymnastics and winter sports. It would also include facilities for newer 'millennial' sports such as skate, sport climbing, BMX, mountain bike, and sports with aerial requirements, which do not have suitable high-performance training facilities elsewhere in Australia.

The indicative capital cost of $70 million needs to be confirmed in the final business case.

Recommendation 5: $10 million for second pass business cases and a capital funding investment envelope of up to $250 million for a new Athletes Village, a new Multi-Sports Dome and a new High-Performance Training and Testing Centre, with final costs and specifications for new facilities to be confirmed by end of 2024

The Review considers these investments urgent and necessary to upgrade and revitalise the AIS Bruce campus to ensure the AIS remains fit-for-purpose to deliver on its legislated objectives well into the future. It would also fulfil its nearer term obligations in support of the HP 2032+ Sport Strategy in the lead up to the Los Angeles 2028 Olympic and Paralympic Games and the Brisbane 2032 Olympic and Paralympic Games.

The proposed new accommodation (indicative 2023-24 cost of $85 million) was seen as critical by most stakeholders, is consistent with best practice internationally and will deliver superior value-for-money compared to previous options considered. The Multi-Sports Dome (indicative 2023-24 costing of $83 million) will provide a fully para-accessible, climate controlled multi-disciplinary indoor training, testing and analysis space that is unique in Australia. The High-Performance Training and Testing Centre (indicative $70 million budget envelope) would replace ageing assets (including the gymnastics hall) and provide particular support to gymnastics, winter sports and newer 'millennial' sports which lack suitable facilities elsewhere in Australia and include solid medal prospects (e.g. skate, sport climbing, mountain bike and aerial sports).

Lower cost options, while not preferred by the Review, could canvass equity funding of the accommodation and a $29.6m program of four facility upgrades in place of the new High-Performance Training and Testing Centre (these upgrades are outlined on p.31, footnote 48 but the Review does not see them as representing value-for-money).

Recommendation 6: Bruce campus funding not to impact funding for National sports programs

Commonwealth funding for revitalising and upgrading the Bruce campus should not negatively impact recurrent funding for high-performance sport, the National Institute Network (NIN), and national sports programs.

Recommendation 7: Develop a Masterplan for rationalisation of the AIS

The Review's conclusion on investment in upgrading AIS assets to be fit-for-purpose and to address depreciation and maintenance issues should inform the new ASC divestment, decommissioning and consolidation Masterplan. This should be funded via ASC building and land reserve funds as far as possible. The strategy should be brought to the Government for consideration.

Recommendation 8: A Centre of Excellence for Para-sports

The ASC should investigate and develop opportunities for the Bruce campus to become an internationally recognised CoE for para-sports and para-athletes.

Building on its unique site suitability, existing excellence in sport science, engineering and medical research, and with the addition of new inclusive and accessible athletes' accommodation and the climate-controlled Multi-Sports Dome, the Bruce campus will offer world class advantages for para-athletes to significantly improve high-performance training outcomes.

Recommendation 9: Net Zero Sustainability - audit and on-site energy generation

i. The AIS should undertake a comprehensive (type 2) energy audit

   The AIS must establish a viable pathway to meeting Australian Government net zero and sustainability goals that considers both energy efficiency solutions and renewable energy generation options. As a first step, the AIS should undertake a comprehensive (type 2) energy audit of the Bruce campus, including consideration of proposed redevelopments, to identify costed energy efficiency improvements and include recommendations in final business cases.

ii. The AIS should consider on-site generation

Decisions around renewable energy options for the Bruce Campus need to consider on-site generation opportunities (including roof mounted solutions) and leveraging of federal and territory incentives. Energy options should be included in all business cases for investment funding.

Recommendation 10: Formalise the Sports Innovation Hub

In conjunction with critical stakeholders, the ASC should formalise a Sports Innovation Hub (either virtually or in an underutilised building on the Bruce campus) to lead innovation and commercialisation of cutting-edge research in sports medicine, rehabilitation, materials science, sport science, biomechanics, physiology, engineering and artificial intelligence. There is potential for support from stakeholders including the University of Canberra (UC), the ACT Government, including the Canberra Institute of Technology (CIT), the North Canberra Hospital, sports technology companies, venture capitalists and other members of the NIN.

Recommendation 11: Continue consultation to establish the Bruce precinct

The AIS should continue to work with UC, the ACT Government, including CIT and the North Canberra Hospital, to support the establishment of the Bruce precinct to explore joint opportunities in health and health services, education, sports participation and innovation and productivity. This should include development of a strategy for the AIS to become a cornerstone of the new precinct reflecting its status as a nationally recognised institution.

Recommendation 12: An AIS commercial division to better promote its services and facilities

The AIS should:

i. Develop (in the medium-term) a commercial division with offerings including residential rehabilitation and conditioning services for professional athletes and teams (including screening of potential elite professionals), training camps for international teams, and corporate leadership programs. This could be modelled on CSIRO commercialisation initiatives and be professionally marketed to the NIN, professional sports bodies and the international sporting world more generally.
ii. Review opportunities for Allied Health Services and professionals to establish a presence in under-utilised AIS buildings on the Bruce campus to offer services to AIS Athletes as well as the general public with separate clinical rooms for athletes and the public. Co-location with Government agencies such as SIA could be considered.
iii. Work with First Nations organisations to promote and support sports camps for Indigenous athletes in a culturally safe environment.
iv. Work with DFAT to investigate whether there is opportunity for additional residential sports diplomacy programs, particularly in the Asia-Pacific region, and potentially in areas including football, (rugby and soccer), women's sports, para-athlete support, sport science and sports medicine.
v. Work with Defence to explore options to expand the use by Defence of the Bruce campus, including for Invictus athletes, the Australian Defence Force Academy and Duntroon.
vi. Investigate whether the ACT Government could relocate the high-performance aspects of its 'home of football' development in Throsby to also leverage off the existing AIS campus and to support ASC efforts to increase its commercially-based support of soccer teams.

3. Purpose

Introduction

3.1 On 16 October 2023 the Minister for Infrastructure, Transport, Regional Development and Local Government, the Hon. Catherine King MP, and the Minister for Aged Care and Sport, the Hon. Anika Wells, MP, announced an independent review into the AIS Infrastructure (the Review).

3.2 Ms Robyn Smith OAM and Ms Erin Flaherty were appointed to undertake the Review, supported by a Secretariat from the Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA).

Terms of Reference

3.3 The Terms of Reference for the Review, reproduced in full at Appendix A, call for consideration of the AIS Infrastructure including:

- its optimal location in the context of Brisbane 2032 and the proposed revitalisation of the existing AIS campus at Bruce;
- a review of what facilities are required for the AIS to achieve its purpose and to deliver its responsibilities, including how best to invest in sports facilities to ensure the AIS continues to remain fit-for-purpose in supporting high-performance athletes; and
- the AIS facilities required by Australian athletes for Brisbane 2032 and beyond, including advice on strategic investment in high-performance facilities that align with the HP 2032+ Sport Strategy.

The Review process

3.4 In conducting the Review, we consulted widely and extensively, including through one-on-one consultations with over 50 organisation and individuals. These covered all the major sports, the Australian Olympic Committee (AOC), Paralympics Australia (PA), Commonwealth Games Australia (CGA), state and territory based institutes and academies, and the ASC. Input was also provided by elite coaches and athletes including Paralympians, Indigenous and prospective athletes, industry and ancillary high-performance professionals, state and territory officials and industry veterans.

3.5 To determine wider stakeholders' views a call for public submissions was issued. We established an online portal, "Have your say". The submission period was open from 24 October 2023 to 21 November 2023. Twenty-three public and three confidential submissions were received. Submissions that were received after the closing date have also been considered and counted in this.

3.6 Appendix F includes a list of the stakeholders interviewed. Appendix G includes a list of the written submissions received.

3.7 We engaged closely with the ASC, including the Chief Executive Officer, Mr Kieren Perkins OAM and the Chair of the Board, Ms Josephine Sukkar AM. Some past office holders and Board members were also consulted to ensure a variety of expert opinions were obtained.

3.8 We reviewed business cases previously commissioned by the ASC which provided detailed options for future investment in the AIS and the campus at Bruce, including financial and economic analysis and site masterplans. We would like to extend our thanks to Populous, a well-regarded consultant with solid and extensive experience and expertise in sports infrastructure design and delivery, for allowing us access to concept plans and the very detailed body of work prepared previously for the ASC. This material has been especially useful to understand the evolution of the Bruce campus.

3.9 A consultant, EY, was engaged to undertake financial modelling on a number of investment scenarios for the proposed AIS Athletes' Accommodation. Twelve scenarios were considered, including for variable bed options, occupancy rates and rates of return (see Section 6.2). EY also undertook a preliminary reasonableness check of the assumptions and costings underpinning the proposed new Multi-Sports Dome.

3.10 We were supported by a Secretariat from DITRDCA. Its support to institute the stakeholder engagement plan, research issues and assist with drafting the Review Report is greatly appreciated.

3.11 Details on the Secretariat are included in Appendix H along with our summary biographies. The Office of Sport provided guidance from a program owner perspective.

4. Role of the ASC and the AIS

The Australian Sports Commission

4.1 The ASC is the Australian Government agency responsible for supporting and investing in sport at all levels, from grass roots to elite. The Australian Government supports participation in sport, together with sporting facilities and organisations, under the National Sport Strategy.

4.2 Sports diplomacy is also used to enhance Australia's reputation and to support and build closer ties with our international neighbours. This entails collaboration between all Australian sports codes, industry and Government.[3]

4.3 While many of the major sports draw in large paying crowds and sponsorship, a fully commercial model is not feasible across many sports and events, particularly Olympic, Paralympic and Commonwealth Games sports. Yet these are often the very sports which inspire and deliver historic moments to motivate young Australians to engage with sport.

4.4 The Australian Government's investment in the AIS occurs in the context of this broader investment in sport.[4] As a division of the ASC, the AIS is responsible for and leads the delivery of Australia's high-performance sporting objectives. It is accountable for the delivery of Australia's international sporting success at major international events including Olympic and Paralympic Games.

4.5 The campus at Bruce in Canberra has been the much loved and iconic home for high-performance sport in Australia since its beginnings in 1981. It is a highly visited under the program of Year 6 school visits to the national capital.

The Australian Institute of Sport

Objectives and functions

4.6 The *Australian Sports Commission Act 1989* provides clear direction as to the functions of the AIS:

i. To develop and implement programs for the recognition and development of:
   - persons who excel, or who have the potential to excel, in sport; and
   - persons who have achieved, or who have the potential to achieve, standards of excellence as sports coaches, umpires, referees, or other officials essential to the conduct of sport.

ii. To undertake research and development related to sport science and sports medicine.

iii. To provide sports medicine services and sport science services to persons participating in programs of the Commission.

iv. To establish and manage, develop and maintain facilities for the purpose of the Commission.

4.7 The legislation sets the framework for an annual Corporate Plan[5] with the ASC Strategic Vision centring on Australia's HP 2032+ Sport Strategy – 'our decade of green and gold'. Reporting on AIS activities is via the ASC annual reports.

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[3] Department of Health and Aged Care, *How we support sport* [website], https://www.health.gov.au/topics/sport/how-we-support-sport, (accessed 29 January 2024).
[4] Department of Health and Aged Care, *How we support sport.* [website], https://www.health.gov.au/topics/sport/how-we-support-sport, (accessed 29 January 2024).
[5] Australian Sports Commission (ASC), *Media Centre - Publications* [website], https://www.sportaus.gov.au/media-centre/publications, (accessed 29 January 2024).

A national institution

4.8 Following its establishment, the AIS was set up in 1981 as a centralised, national institution for high-performance sports training, education and research. It occupies a 65-hectare site in the northern Canberra suburb of Bruce and is built on an open campus style residential model.

4.9 Additionally, a European Training Centre was opened in Varese, Italy, in 2011 with the mandate to replicate the training environment of the AIS in Australia, providing athletes with a 'home away from home'. The AIS also operates high-performance sports training facilities at Pizzey Park on the Gold Coast which opened in 1991.

4.10 The AIS operating model aligns with its legislative objectives. The Bruce campus is recognised as being uniquely placed as a high-performance hub environment providing access to large-scale integrated training facilities, residential accommodation, onsite dining hall, para-accessibility, clinical, performance and technical capabilities.

4.11 The AIS was so successful in producing Australian champions and Olympic medallists, that the AIS model was replicated around the world and became the benchmark for supporting high-performance training and pathways. It also informed Australian state and territory institutes of sport and other supports for Australian sports.

4.12 In 1987 the AIS was merged with the ASC creating pathways between elite and community sport and removed overlapping and competing objectives and duplication in administration. With the establishment of state and territory based elite athlete training and facilities during the 1980s and 1990s, the AIS made a strategic shift.

4.13 With the support of the National Sport System, it adopted a national leadership role focused on supporting the daily training environments. These are now provided by the NIN, the National Sporting Organisations (NSOs) and the National Sporting Organisations for People with Disability (NSODs).

4.14 From 2014, AIS funded programs at Bruce were discontinued, and coaches and resources were dispersed across NSOs and the NIN as part of a decentralised model under a new national high-performance sport strategy, *Australia's Winning Edge 2012-2020*.[6] This shifted funding and high-performance responsibilities to the NSOs and NSODs. However, the AIS provides support in areas that the NIN is not resourced for and provides support for smaller sports that do not have the means to provide key high-performance services.

Australia's High-Performance Sport System

4.15 The Australian HP sport system is the national system which supports the ambitions and delivery of Australia's Olympic, Paralympic and Commonwealth Games sports and athletes. Organisations within the HP sport system include:

- The ASC which recognises eligible NSOs and NSODs. These link into the relevant state and territory sporting organisations.[7]
- The NIN, comprising the AIS and the eight state and territory sport institutes and academies, representing federal, state and territory governments. Figure 4.2 and Appendix B provide details on the NIN network and the facilities within this.
- Australian Olympic Committee.

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[6] Australian Sports Commission (ASC), *Australia's Winning Edge 2012-2020*, ASC website, 2012, accessed 31 January 2024.
[7] ASC, *Recognition of National Sporting Organisations* [website], https://www.sportaus.gov.au/recognition_of_national_sporting_organisations, (accessed 22 December 2023).

- Paralympics Australia.
- Commonwealth Games Australia.
- Sport Integrity Australia.
- National Sports Tribunal.

4.16 In 2022, the ASC led the collaborative development of a new strategy, Australia's HP 2032+ Sport Strategy. This set the road map and focus for optimising outcomes and sustainable success for Summer and Winter Olympic and Paralympic and Commonwealth Games sports. The strategy was endorsed by the HP sport system, including the NIN.

4.17 This categorisation in Figure 4.1 below provides further insights into the structure of Australian sport (wider than high-performance sport).[8] It is drawn from the ASC Clearinghouse for Sport which shares news, evidence and insights about sport, human performance, and physical activity.

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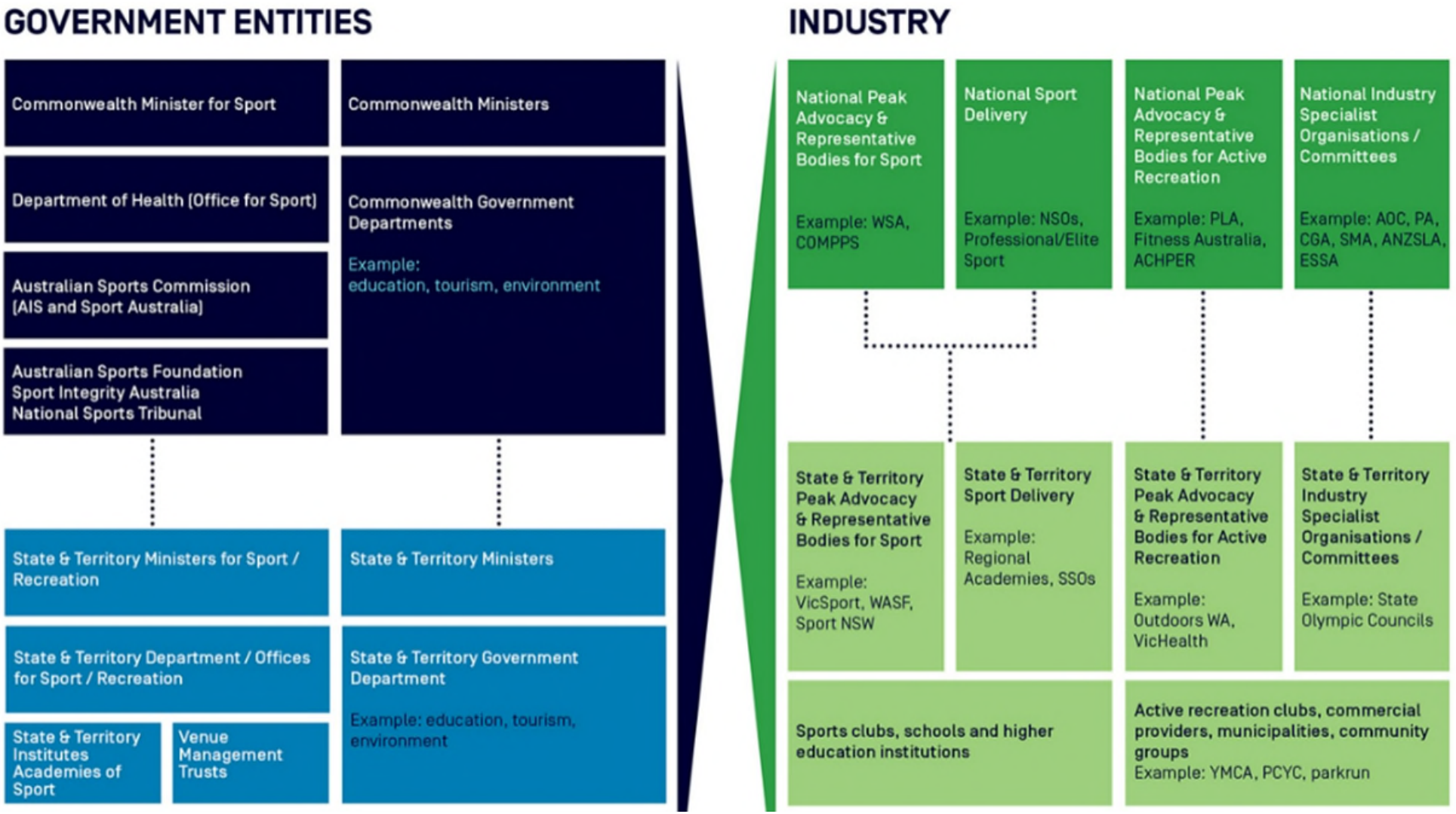
[8] Further details on the structure of Australian Sport are available from Clearinghouse for Sport. Clearinghouse for Sport, *Structure of Australian Sport* [website], https://www.clearinghouseforsport.gov.au/kb/structure-of-australian-sport, (accessed 18 August 2023).

Figure 4.1. The governing structures for Australian sport



The High-Performance 2032+ Sport Strategy

4.18 The HP 2032+ Sport Strategy[9] sets out a vision for an inclusive and sustainable high-performance sporting system in the lead up to Brisbane 2032 and beyond. The system was co-designed by the system, for the system and outlines steps for sporting success based on the following priority areas:

- performance delivery
- athlete focused through high performance pathways
- world leading knowledge and practice
- supporting highlight capable organisations to develop and retain outstanding people and organisations.

4.19 It includes a commitment by the system for enhancing meaningful connection with Aboriginal and Torres Strait Islander Peoples, histories, communities and cultures. Its goal is not only to win but to "win well to inspire Australians" and to achieve success across a greater breadth of sports and disciplines. Colloquially this has been termed 'more medals across more sports'.[10]

4.20 The NIN is a key facilitator in delivering on the HP 2032+ Sport Strategy and details of the NIN network are shown in Figure 4.2 below.

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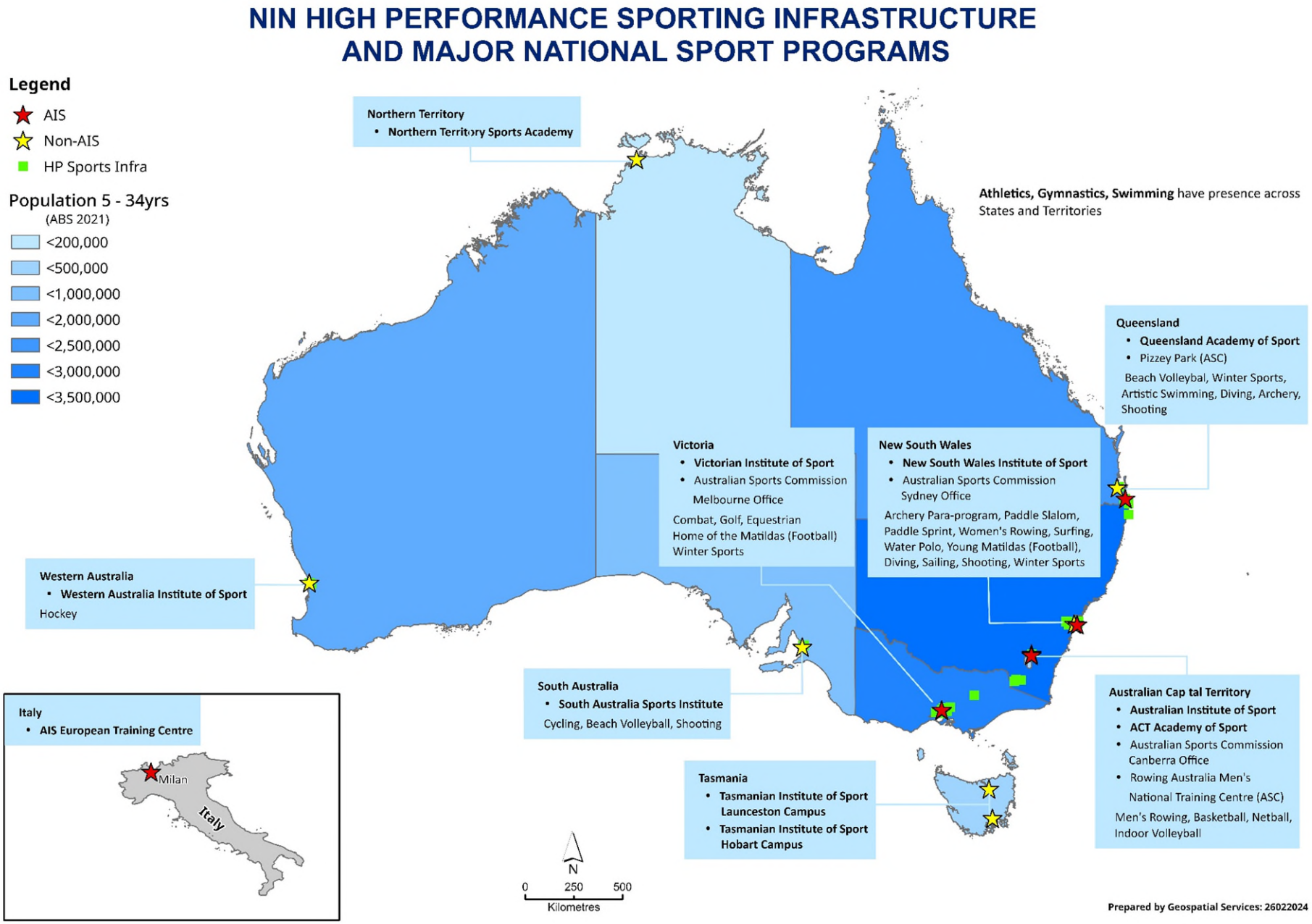
[9] +WinWell 2032, '2032+ Australia's High-Performance Sport Strategy (HP2032+)', +WinWell 2032, 2022, https://www.winwell2032.au/__data/assets/pdf_file/0007/1083742/Australias-2032-High-Performance-Sport-Strategy.pdf, (accessed 18 August 2023).
[10] +WinWell 2032, '2032+ Australia's High-Performance Sport Strategy (HP2032+)', p. 12.

Figure 4.2. Key NIN facilities across Australia



5. The optimal location for the AIS

Differing views

5.1 AIS funded programs were discontinued in 2014, and coaches and resources were dispersed across NSOs and the NIN as part of a decentralised model under the Winning Edge Strategy 2012-2020. Since then, there has been a body of opinion that holds that the centralised residential campus style facility at Bruce is no longer required. Or, if a Canberra location is required by the AIS, it should become more administrative in nature and not provide training and high-performance facilities which can be better provided through the state and territory based NIN and NSO/NSOD networks.

5.2 There have also been views expressed that the AIS should move to South-East Queensland (SEQ), particularly in the lead up to Brisbane 2032, or once the Games have finished, the AIS should relocate to vacant buildings and facilities no longer required by Brisbane 2032. Most often the reasoning behind the suggested move to SEQ was based on the weather. A substantial number of stakeholders commented that Canberra winters (and hot summers) were not ideal for high-performance training.

5.3 The logical outcome of these views is that the AIS campus at Bruce should then be sold with the proceeds going to support the NIN and NSOs/NSODs. The AIS would then either be disbanded or funded to fulfil a purely head office, administrative role for the HP sport system.

5.4 Other views centred on supporting athletes where they live. A New South Wales Institute of Sport official said home-based programs are preferable, close to family and community. Financial stress is a critical issue for athletes and could be reduced via supporting them through the state and territory institute networks.

5.5 The Queensland Academy of Sport noted the importance of international camps, with the competition schedule in northern hemisphere running 3-5 months a year. It stated there is a role for the AIS to facilitate international training. The Tasmanian Institute of Sport noted that the facilities in Canberra were good but access in and out of Canberra was more of an issue.

Benefits of a Canberra location

5.6 In considering the above views, the Review had access to options analysis commissioned by the ASC in 2019. This assessed a number of scenarios to determine whether the AIS in its current form was able to provide fit-for-purpose assets. It considered core AIS functions and legislated objectives as a CoE for high-performance sport.

5.7 Cost options were assessed through a DBC (2019, and again in 2023). The options included development of a new campus in other locations (such as SEQ), investment in new facilities at the existing campus, as well as sale and lease back of the existing campus.

5.8 This 2023 DBC analysis concluded that the only viable option was revitalisation of the existing campus:[11]

> **"relocation options were estimated to cost in excess of $1 billion in initial capital investment and involved the development of new facilities as well as utilisation of some existing facilities.[12] These options did not support the AIS in achieving its objectives, included significant development risks (time, cost, planning, coordination, recognition of ownership and therefore**

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[11] ASC, *AIS Site Strategy Project Detailed Business Case 2023 (draft – Commercial in Confidence)*, 2023, p. 130; Information provided by the ASC.

[12] ASC, *AIS Site Strategy Project Detailed Business Case 2023 (draft – Commercial in Confidence)*, p. 130.

> **responsibility for ongoing maintenance, depreciation and other factors between the Commonwealth and QLD Governments). There were also issues with some sites with existing facilities including topography for para-access that had significant challenges. Notwithstanding the challenges, risks and cost implications, any relocation could not be delivered in a time frame to support the athlete development cycles and therefore Australia's ambitions for the 2032 Olympic and Paralympic Games in Brisbane would be significantly impacted."**

5.9 Interviews with a senior official from the Queensland Government reinforced this view and confirmed that there was no appetite from the Queensland Government to fund or provide land for the AIS to relocate to SEQ. No other state or territory has proposed a plan for moving the AIS to its jurisdiction There is no other detailed alternative, costed proposal for a relocated AIS and no committed funding that we are aware of. [13]

5.10 In meeting with a number of team NSOs, there was strong support for the AIS Bruce campus as the only place in Australia which provided a camp style environment for team training with all the ancillary services on site. We note that under the Olympic and Paralympic qualifying rules the Host Country receives automatic qualification for all its teams. This will considerably increase the number of teams seeking the AIS campus for preparation beyond what exists in the NIN for Paris 2024 and Los Angeles 2028.

5.11 Finally, the point was made forcefully by a number of sports administrators and in particular, the AOC, that there was no time left to relocate the AIS and still be within the time frame required by elite athletes to train and perfect their performance before the Brisbane 2032 Games. The point was also made that relocation would also not be up and running in time to support preparations for Los Angeles 2028, noting that success in Los Angeles 2028 will underpin Brisbane 2032 sporting success and sponsorship.[14] [15] [16]

5.12 There was strong support from stakeholders, including across the NIN network and NSOs/NSODs, as well as from senior administrators for the AIS to remain in Canberra. This supports the conclusion that moving the AIS to another location does not appear to be advisable or practical given the very high cost,[17] land availability constraints, market capacity constraints and other risks.

Land tenure and wider precinct considerations

5.13 The views of the ACT Government and the National Capital Authority (NCA) were also sought. The ACT Government as landlord, under a 98-year lease, gave no indication that it has plans to utilise the land for other than National Capital purposes (such as the AIS or other similar national assets).[18]

5.14 The ACT Government submission to the review says:

> **"The AIS is pivotal to the development of Canberra's Northside Sport and Health precinct, also encompassing the University of Canberra (UC), Canberra Institute of Technology (CIT) Bruce, UC Hospital and North Canberra Hospital. This corridor is planned to be a dynamic precinct with one**

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[13] K. Barlow & C. Dutton, 'Very suspicious' of Australian Institute of Sport review, *The Canberra Times,* 21 November 2023; *"The Queensland Government has declined the opportunity to pitch for a $1 billion relocation of the Bruce campus."*
[14] A. Payne MP, A. Leigh MP & D. Bean MP, Joint submission to the *Independent Review of the AIS Infrastructure*, 2023.
[15] In conversation with Brisbane 2032 Organising Committee CEO, 10 November 2023.
[16] Rowing Australia, Supplementary submission to the *Independent Review of the AIS Infrastructure*, 2023.
[17] In conversation with ASC Board Member, 22 November 2023.
[18] The National Capital Authority (NCA) has advised that it has planning responsibility for the AIS site with the permitted land use: National Capital Use. This is a flexible land use provision that effectively allows the Commonwealth to do things that it considers in the National Interest. In Canberra, all land is land leased from the Commonwealth (this is National land) or the ACT Government (Territory Land). AIS is Territory Land leased by the Commonwealth.

> **focus being on sport, including sport experience, sport science, sport participation and sport innovation".**[19]

5.15 On 28 June 2023, the ACT Government signed a Memorandum of Understanding (MOU)[20] with the ASC to ensure the AIS precinct continues to be central to Australia's sporting success. The MOU will enable the ASC and the ACT Government to actively engage in discussions and explore mutually beneficial opportunities within the AIS precinct.

5.16 The MOU enables the ASC and the ACT Government to actively engage in discussions as outlined in the ACT Government's Entertainment, Arts and Sports Infrastructure Plan Update. The MOU includes investigating options for the redevelopment or replacement of the GIO Stadium Canberra within the AIS precinct, with a study to inform the way forward for the stadium.

5.17 The NCA was supportive of the continued use of the land by the AIS and noted the considerable difficulties with changing planning and zoning use for other than National Capital use, e.g. should a proposal for residential development be presented. It saw no difficulty, however, if the AIS were to divest some land for "ancillary or related" use. Medium term planning and use options are further considered in Section 11.

5.18 UC is extremely supportive of the AIS staying in its current location and has entered into a MOU with the ASC to promote the establishment of a sports-based university focusing on para-athletes and women. This would align with the AIS strategy to become a world-class CoE for para-athletes.

FINDING: The AIS should be revitalised in Canberra

- There is overwhelming support from those within the High-Performance Sport System and interested stakeholders for the AIS to continue operating as a CoE for high-performance athletes.
- Stakeholders recognised and accepted that the process of identifying, training, developing and supporting high-performance athletes has changed since the AIS was established. The High-Performance Sport System has decentralised from the AIS in Canberra and now operates in tandem with the NIN. The AIS should continue contributing to the competitive edge of high-performance athletes.
- The point was made often that although the National High-Performance Sport System has evolved to support decentralised high-performance training options around the country, the AIS still fulfilled a vital role as a fundamental spine. This is essential to support Australia's High-Performance Sport System and the Australian High-Performance 2032+ Sport Strategy. Investment in the AIS will be required for the AIS to continue to deliver results.
- The AIS is uniquely placed as an accessible high-performance sporting hub, providing residential accommodation on campus. This facilitates easy access to large-scale integrated training facilities, nutrition and diet experts, para-athlete services, sports medicine and clinical services, performance analytics, sports engineering and sport science expertise.
- Under the High-Performance 2032+ Sport Strategy endorsed by the Australian Sport System, the AIS is well positioned to play a critical role as the central hub of the distributed HP sport system. In

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[19] The ACT Government notes that the Belconnen District Strategy supports this vision. ACT Government, 'Draft Belconnen District Planning Strategy', *ACT Government,* https://hdp-au-prod-app-act-yoursay-files.s3.ap-southeast-2.amazonaws.com/7816/6736/7509/Belconnen_District_Summary_V8.pdf, n.d., (accessed 27 January 2024)

[20] ACT Government, *Australian Sports Commission MOU* [website], Australian Sports Commission MOU - Sport and Recreation (act.gov.au), (accessed 22 January 2024).

particular, with all Australian teams gaining automatic qualification for Brisbane 2032, use of the AIS Bruce campus will be considerably increased.

- Stakeholders support a revitalised AIS remaining in Canberra and we note there is a 98-year term left on its lease. They observed that a Canberra-based AIS provides a 'neutral' location which supports Australia-wide high-performance objectives.
- Many interviewees commented that the AIS was not what it used to be. It needs urgent funding to revitalise the campus at Bruce to best support Australia's HP 2032+ Sport Strategy and broader sports use.
- Moving the AIS to an alternative location would incur excessive and unnecessary costs (potentially in excess of $1 billion) and entail significant development risks. The timeline for relocation would compromise athletes' preparations for the 2028 and 2032 Olympic and Paralympic Games.
- There was appetite from the ACT Government and other stakeholders for the AIS to be part of a wider sports, health, education and innovation precinct located around the Bruce campus. There is scope for this to develop over time.

Recommendation 1: Canberra and the AIS

The AIS residential campus delivery model at Bruce should be retained and remain at its present location in Canberra, revitalised and rationalised.

There was broad based support for the AIS residential campus delivery model at Bruce to continue as the centre of excellence for high-performance athletes. It would act as a fundamental spine supporting Australia's High-Performance Sport System and the Australian High-Performance 2032+ Sport Strategy, if it were to be upgraded.

The Bruce campus with its large-scale training facilities, education integration, research, and medical services together with onsite athlete accommodation is a unique environment. It cannot be replicated elsewhere without substantial re-establishment costs and significant development and execution risks, including land availability, construction capacity constraints and project delivery issues.

6. Revitalising the AIS

Integrated AIS revitalisation and rationalisation

6.1 The Review largely concurs with a conclusion in the AIS 2023 DBC[21] that the "AIS does not need to replicate what currently exists nationally. It needs to leverage existing levels of expertise and resources to develop a more collaborative and aligned national system."

6.2 It requires:

- "world-leading testing and training facilities that are future focused and adaptable to changes in technology"
- "a contemporary, integrated athlete accommodation (*and workplace*)"
- "a vibrant campus environment that sports look forward to utilising in their preparation of athletes and teams".

6.3 The immediate stage of this revitalisation could be achieved by investment in targeted 'world best' facilities and AIS asset rationalisation (also see Section 7 and the map of AIS facilities in Appendix C). The ASC has significant funds locked up in outdated and underutilised facilities that are not well aligned to the strategy or the future needs of the AIS. Maintaining all the facilities is unsustainable without a substantial increase to existing funding.

6.4 In addition to recommended new investments, the Review notes that the AIS is currently undertaking revitalisation of some older buildings using its building and land reserve funds. A $4.6 million altitude capability in the Residence of Champions is in progress[22] and a $3.3 million athlete Environmental Chamber is already committed. Commitments have also been made to[23]an ASC Office refurbishment ($4.6 million), a Para-Accessibility Program ($6.0 million) and retrofitting a dome over the synthetic field ($13.5 million).

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[21] ASC, *AIS Site Strategy Project Detailed Business Case 2023 (draft – Commercial in Confidence)*, p. 84.
[22] Noted at senior APS leaders tour of the AIS 20 December 2023. C. Dutton, 'AIS to build new $4 million altitude residence to boost Olympic Games chances', *The Canberra Times*, 10 October 2023.
[23] AIS Site Proposal High Level Summary provided by ASC in December 2023 – excel sheet with 2024-25 costings; Information provided by the ASC.

Figure 6.1. Business Case Options prepared by the AIS (2023)[24]

Proposal Investment (inclusive of ED and WCI)		HIGH	MEDIUM	LOW
FACILITY				
P80	New Athletes Accommodation - Multi-story (194 Beds)	$97.0m	$97.0m	$97.0m
P80	New Athletes Accommodation - Modular Village (60 Beds)	$30.3m	$30.3m	
P80	Multi-purpose indoor sporting dome	$79.9m	$79.9m	$79.9m
P80	High performance training & testing, applied sport science and sport medicine	$104.9m	$104.9m	$104.9m
P80	Australian Sports Innovation Hub	$52.1m	$52.1m	$52.1m
P80	Altitude Capability in athlete accommodation	$4.6m	$4.6m	$4.6m
P80	Climate Chamber	$3.3m	$3.3m	$3.3m
P80	Upgrades to indoor track for para-accessibility	$4.0m	$4.0m	
P80	Dome to existing synthetic field	$13.5m	$13.5m	
P80	Solar Array and Long Duration Energy Storage (LDES)	$74.4m		
	Sport Hub with new generation grass/synthetic field (P80 Pending)	$30.0m		
	Residence of Champions Refresh (148 Beds)			$5.0m

Notes: Updates for 2024-25 produced indicative costs of $106 million for the 194-bed facility, $34 million for the modular village and $83 million for the Multi-Sports Dome. The altitude capability, climate chamber, upgrades to the indoor track and a dome to the synthetic field are planned by the AIS regardless of decisions on the major assets.

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[24] AIS Revitalisation Proposal High/Medium/Low Cost Options (Summary of the 2023 Detailed Business Plan), page 10.

Accessible athletes' accommodation is an immediate priority

6.5 The multi-storey Athletes' accommodation is an immediate priority to support a world best facility. The Review considered this to be an immediate priority out of the set of large upgrades proposed in the 2023 DBC (see Figure 6.1 above).

6.6 The Review based its assessment on the analysis and information provided in previous AIS business cases. It also looked at a "Revision F 2018 Master Plan" prepared by the AIS[25] and Asset Condition Reports. It took into consideration views expressed by stakeholders, including current and past coaches, athletes, commercial sports administrators, officials and a personal viewing of the Bruce campus.

6.7 To test the 2023 Business Case costings and potential market, the Review commissioned EY to model 200, 250 and 400-bed accommodation facilities. This was based on a modern co-living / student accommodation inspired design, with different room configurations, private bathroom facilities and common areas. Hotel-style variable occupancy rates were considered given the variable usage pattern of most AIS accommodation.

6.8 In commissioning the consultancy, the Review assumed that a single multi-storey accommodation facility would likely deliver a better value-for-money outcome than the two separate accommodation facilities previously proposed by the ASC. The ASC indicated that 60 beds in separate cabins were proposed to allow teams to be co-located in a team-building environment. It would also be suitable for athletes with children and higher needs para-athletes who need one or more carers staying with them.

6.9 However, these user cases should be able to be incorporated more cost-efficiently in a 250-bed accessible, multi-storey accommodation facility, with single and multiple-bedroom accommodation. This would align with the overall new bed numbers (254) that the ASC has identified as being essential to meet expected demand for on-site accommodation.

6.10 Innovative design and spaces could also be incorporated in and around the multi-storey accommodation building as an alternative to the proposed cabin precinct. The design process should include extensive consultation with local traditional owners (Ngunnawal and Ngambri), Indigenous athletes and other stakeholders to ensure the accommodation (and other investments) result in inclusive and culturally safe environments.

6.11 A 400-bed accessible accommodation option was also tested to review economies of scale based on industry advice.[26] This also allowed consideration of whether commerciality might be improved by a larger facility that could accommodate university students or others in a separate wing (to manage infection risk). The Review considers that this option should be further explored given the automatic qualification for all Australian Team sports as a Host Country in Brisbane 2032.

6.12 It was noted that a modular build, while not providing cost savings, could achieve construction time savings of around 20 per cent. At a Government rate of return, it may be possible to contract operation of the facility to the not-for-profit sector. Commercial advice was that such a facility should be able to be constructed within a year.[27]

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[25] Populous Option 3 (2018 Rev G) - Minimise the AIS's footprint by consolidating like functions, improving efficiencies and collaboration, reducing maintenance costs and removing aging or redundant facilities. Ontoit and Populous Revision F Master Plan 2018; Information provided by the ASC.

[26] In conversation with IGLU, 30 November 2023.

[27] Ibid

6.13 The EY modelling includes an indicative capital cost of $85 million for a 250-bed accommodation facility below the ASC costing for its 194-bed facility. This would need to be tested in a final business case that would also need to model operating costs. There may be other costs not included in the modelling such as demolition.

Student /co-living derived economic model for new AIS accommodation

- The EY modelling for a new accessible Athletes' accommodation drew on both Purpose-Built Student Accommodation (PBSA) and Co-Living models. PBSA facilities typically offer fully furnished apartments and/or rooms equipped with amenities such as communal spaces, study areas, kitchens, and recreational areas. Co-living providers often curate a range of amenities and services to enhance the quality of life for residents, including shared workspaces, fitness facilities, cleaning services, and social events.
- The modelling and the scenarios assumed that 30 per cent of rooms are fully accessible for para-athletes. The overall facility would meet modern accessibility standards.
- The modelling drew on construction cost benchmarking and benchmark rents for this type of accommodation (assuming 100 per cent occupancy) to develop indicative revenues. Nightly rates (per bed) were used for 1 bedroom, 2 bedroom and 5 bedrooms. This was used as inputs for lifecycle capital expenditure, and operating expenditure for the AIS-specific accommodation model.
- Appointment of an external Property Manager was recommended, similar to how government projects such as social and affordable housing employ Community Housing Providers to manage their assets. Management Fee benchmarking was assumed at the same rate in the AIS-specific model.
- Scenarios in the AIS-specific model varied across 200, 250 and 400 beds with 50% and 75% occupancy rates (with options for room costs to be subsidised). Each scenario assumed that the invested capital, along with a Government rate of return,[28] is covered by the end of the assumed 30-year operating term.
- Modelling shows that there are some efficiencies from a capital cost perspective in building a larger facility upfront. These costings included an uplift in prices from the 2023 DBC.
- Operating costs were estimated at a percentage of gross operating revenue and would need to be modelled further based on the specific characteristics and services that the ASC would offer. It should be possible to largely offset these by user charges as detailed below.
- To reach a 50 per cent occupancy (across existing and new AIS accommodation) would require an increase in 2022-23 bed nights of 82 per cent for 250 beds and 175 per cent for 400 beds. To reach a 75 per cent occupancy, would require an increase of 174 per cent in bed nights for 250 beds and 276 per cent for 400 beds.[29]
- It was noted that the assumed Government rate of return was very low and the model could be re-run with higher rates of return to reflect a more usual commercial rate of return, which will impact the rate per bed per night. A more commercial rate of return would have a significant impact on the required nightly room rate. Private hotel options are in the order of $250 - $300 per night.
- It was noted that if spare capacity is expected for the new facility, there could be an opportunity for it to be utilised for alternative purposes (e.g. university student accommodation, or to generate additional revenue sources). However, the potential impact on Government's balance sheet and

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[28] Aligned with the Treasury minimum investable rate.
[29] Calculations done by the Review Secretariat and provided to the consultant.

approval / reporting of any future mixed-use of the AIS Accommodation would need to be considered. Protecting athletes from the infection risk due to other users would also need to be managed.

- Further work will need to be done to confirm the facility design, costings, funding and operational model, including the AIS role. Operation of accommodation should not be a core focus for the AIS, with design, construction and operation of the facility ideally contracted to third parties.

Stakeholder views

6.14 The Reviewers tested the need for upgraded accommodation with stakeholders, the majority of whom had used the current accommodation at some stage over their careers. For most, if not all stakeholders, including the ASC Chair and Chief Executive Officer, upgraded accessible accommodation is the major priority for the AIS in attracting Australian and overseas athletes. A tour of the AIS by the Reviewers confirmed that the current Athletes' Village is of a very poor standard and not para-accessible.

6.15 Mr John Wylie AC, former Chair of ASC (2012-2020) said that the current accommodation is woefully inadequate and needs to be addressed as a matter of urgency.[30] He noted a prior plan to sell half the site and use the funds to build a multi-storey facility with better accommodation. There was also aspiration for collaborations with UC and others.

6.16 Auscycling, the governing body for cycling in Australia, observed that its priorities for the campus are accommodation and sport science.[31] It noted that the newer, Residence of Champions accommodation is dated but affordable and therefore highly used by the smaller sports. The AIS charges a nightly fee for the accommodation.[32] This charge also covers meals and supporting services which is very cost effective and appealing for smaller sports. As noted above, private hotel options are in the order of $250-$300 per head per night.

6.17 Skate Australia, the national organisation for skate sports and skateboarding, said that accommodation at the AIS is important as it helps to simulate the experience of staying in an Olympic village. In its submission Skate Australia noted that it intends to make greater use of the AIS facilities, as alternatives it had been pursuing did not provide the same level of high-performance training.[33]

6.18 One submission to the Review[34] noted the increasing cost of overseas travel and the need to have suitable campus style accommodation here in Australia. One stakeholder noted that it is vitally important to have accommodation – if a world class training opportunity is available, then it is the responsibility of the athlete and coach to take up that opportunity and on-site accommodation would greatly assist.[35]

6.19 The Review noted that state and territory institutes of sports within the NIN do not have residences or accommodation to support camps, making the AIS unique in this regard. Securing hotel accommodation in capital cities to allow more camps across the NIN could be costly.

A Multi-Sports Dome is an immediate priority

6.20 The 2023 DBC included an indoor Multi-Sports Dome. This would constitute a major uplift to the AIS as the first such facility in Australia offering high-performance facilities suited to multiple sports.

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[30] In conversation with John Wylie AC, 5 December 2023.
[31] In conversation with Auscycling, 4 December 2023.
[32] In conversation with Senior ASC Executive, 8 November 2023; In conversation with ASC Chief Executive Officer, 16 November 2023.
[33] In conversation with Skate Australia, 29 November 2023.
[34] Anonymous, Submission to the *Independent Review of the AIS Infrastructure*, 2023.
[35] In conversation with Olympic Winter Institute of Australia, 8 November 2023.

6.21 The proposed Multi-Sports Dome will provide a fully para-accessible, climate controlled multi-disciplinary indoor training, testing and analysis space and will consist of an inflatable fabric structure. The Multi-Sports Dome is intended to enable fully integrated multi-disciplinary data capture and analytics, leveraging the leading capabilities of the AIS and the sports technology industry.

6.22 It would include an indoor multi-sport full sized synthetic field suitable for football, rugby union and rugby league and other multi-sport training.[36] A four lane, adjusted athletics track, jumps and throwing areas, team change rooms, meeting areas, and physiotherapy rooms are also proposed. There would be an attached biomechanics laboratory, an engineering and innovation workshop and a sports analysis and data centre. This would also provide a thermoregulated training environment for para-athletes.

6.23 The indoor, climate-controlled aspect (including the track) means that the facility can be operated 24 hours and this may provide commercial use opportunities while still satisfying high-performance requirements. The full-length outdoor track will still be needed for time trials etc.

6.24 In the 2023 DBC the Sports Dome was indicatively costed at $80 million but site costs, operating costs and depreciation would need to be refined as part of the Business Case.

6.25 EY undertook a preliminary reasonableness check of the assumptions and costings underpinning the proposed Multi-Sports Dome and its findings are set out below. These costings and assumptions will need to be updated in a final business case. There are possible offsets in operating costs from venue naming rights and sponsorship.

Multi-Sports Dome proposal testing

- It was noted that the design and delivery of a large component of the Multi-Sports Dome is specified as a 'proprietary structure' (specific dome product), likely requiring overseas procurement. It suggests that as design is developed, consideration be given to enabling the competitive and inclusive procurement of multiple suppliers not just limiting to a single source 'proprietary' design.
- The proposal includes a full size synthetic rectangular pitch suitable for football, rugby union and rugby league training, compliant with FIFA and World Rugby Surface requirements. The consultant noted that full compliance to both FIFA and World Rugby Standards may not be possible but should be investigated as part of the final business case.
- The review noted that operating expenditure commitments will need to be part of the design development to ensure adequate capacity, avoid costly upgrades and future sustainability of the facility. It noted that the Cost Plan refers to a 6 Star NABERS rating which may not be possible.
- It also noted that costings and planning approval provisions appear to be largely within industry standards and expectations, but consultant design fees and risk provisions may be on the low side.

Stakeholder views

6.26 Support for a Multi-Sports Dome as a priority was offered by the ASC Chair[37], and confirmed by a member of the AIS medical staff [38] noting that a covered multi-sport facility is much needed. The ASC official

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[36] ASC, *AIS Site Strategy Project Detailed Business Case 2023 (draft – Commercial in Confidence)*, p. 110.
[37] In conversation with ASC Chair, 10 November 2023.
[38] In conversation with Dr David Hughes AM, AIS Chief Medical Officer, 20 November 2023.

said that it is critical for the AIS to have an internal training area with HEPA filters installed so that athletes can train safely indoors and be protected from bushfire smoke and other air borne particulates that negatively impact performance and respiratory health.

6.27 A University of Queensland representative[39] noted that climate and heat can also pose particular issues for many athletes with disabilities. They require climate-controlled spaces due to difficulties with thermoregulation and a covered arena would provide great benefits to them.

6.28 CGA representatives[40] and Gymnastics Australia[41] noted the importance of managing Canberra's winter climate. Athletics Australia[42] said that if the AIS is made fit-for-purpose with access to temperature controlled indoor facilities, athletes will use it as a destination of choice for preparing for international meets. This would reduce resource requirements that would otherwise be spent on sending athletes overseas.

6.29 Leading sports scientist and coach, Professor Richard Telford AM, also raised the importance of a covered indoor track, especially as there is not one in Australia.[43] Indoor tracks and world indoor track competitions are common in Europe and one in Canberra would attract both Australian and overseas athletes. He mentioned that the Multi-Sports Dome facility could be networked with winter sport facilities and activities in Jindabyne and Perisher, and would be most useful if biomechanics are integrated into the track.

A High-Performance Training and Testing Centre is a critical modernisation

6.30 The Review noted that a High-Performance Training and Testing Centre (including facilities for applied sport science and sports medicine) was included in the 2023 DBC prepared by the AIS. The indicative costing was $104.9 million. This centre was intended to respond to structural deficiencies in the current High-Performance Centre and replace ageing assets e.g. the Combat Centre and the Strength and Conditioning Facility.

6.31 A new High-Performance Training and Testing Centre could potentially cater to newer 'millennial' sports such as skate, sport climbing, BMX, mountain bike, and sports with aerial requirements, which do not have suitable high-performance testing and training facilities elsewhere in Australia. According to research conducted by the ASC, these sports offer viable medal chances. This facility also has the advantage of being 'future facing' and easily able to adapt to the needs of changing exhibition sports.

6.32 The AIS advised following development of 2024-25 costed options, that the High-Performance Training and Testing Centre could be deferred through investment in four upgrades.[44] However, the Review believes that better value for money would be obtained by investing in a new facility rather than attempting to upgrade old and degraded buildings.

6.33 The Review is attracted to the idea of a centre for new sports, particularly one which aligns with the strategy set out in the HP 2032+ Sport System strategy of 'more medals across more sports. It is also cognisant

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[39] In conversation with Professor Sean Tweedy, 21 November 2023.
[40] In conversation with Commonwealth Games Australia, 8 November 2023.
[41] Gymnastics Australia, Submission to the *Independent Review of the AIS Infrastructure*, 2023.
[42] In conversation with Athletics Australia, 24 November 2023.
[43] Interview with Professor Richard Telford AM and Cameron Myers (under-18 1500 metre World Record holder), 13 December 2023. Professor Telford is a leading sports scientist and coach, including for marathon running. He was the first sports scientist appointed by the AIS and has held roles as professorial fellow at the University of Canberra's Research Institute for Sport and Exercise and Adjunct Professor at the Australian National University.
[44] In developing costed options for 2024-25, the ASC proposed an alternative to the High-Performance Training and Testing Centre based on four facility upgrades (costings totalling $29.6 million). This covered Building 11 (Multi-Sport): $6.829 million, Building 14 (Sport Training): $6.743 million, Building 19 (High Performance Centre - Sport Science and Sports Medicine): $6.161 million and Building 12 (Gymnastics Centre): $9.852 million.

of research undertaken by the ASC which shows that new or 'millennial' sports have consistently won medals or placed highly in the last few Olympic and Paralympic Games.

6.34 The concept is for a centre for a combination of sports, including gymnastics and winter sports in an integrated sport science performance environment. Newer 'millennial' sports which do not have suitable facilities elsewhere in Australia such as skate, sport climbing, BMX, mountain bike (with jump and aerial requirements), would also be accommodated.

6.35 Providing space for these new sports to train and test in a high-performance environment also builds pathways for young Australians who may not take up traditional high-performance sport. There is more scope through this initiative for them to excel in their chosen sport and become role models for participation and success in the wider community.

6.36 In order to understand the use and condition of the various buildings proposed for replacement the Review had access to previous asset condition reports prepared for the AIS (see Appendix D for background data on key assets).[45] Based on this information, the Review has concluded that there are structural issues and defects across many of the older buildings on the campus, rendering them no longer fit-for-purpose or, they have reached the end of their useful life.

6.37 Further investment in these buildings would be counterproductive and not value for money. As an example, the High-Performance Centre (Buildings 19 and 34) needs substantial repair. The Centre's sheeting to the elevations is extensively cracked and the roof is deteriorating and needs to be replaced.

6.38 The Review noted the initial cost estimate of $104.9 million for the proposed High-Performance Training and Testing Centre which is intended to replace these ageing assets. It requested further information from the ASC on assumptions and other options for this facility.

6.39 Appendix B includes an assessment of current and planned NIN facilities that could assist with the prioritisation of features for this facility. The investment in this facility could be capped at $70 million - roughly half way between the upgrade budget and the original budget for the High-Performance Training and Testing Centre.

6.40 The ASC provided feedback on this approach. It said that it is feasible for the ASC to deliver a world-class new High-Performance Training and Testing Centre at the AIS Campus for circa $70 million. The ASC should be asked to develop this option and provide a comparison between this and the four upgrades option. It should consider the sports served to meet current and emerging gaps in facilities across Australia.

Alternative funding options have been considered for the key new facilities

- The EY analysis shows that there is a strong opportunity for user fees for accommodation to support a Government rate of return, particularly at the modelled higher occupancy rates (which sit above the actual 2022-23 AIS bed nights). These charges may sit below the current rate for core users. However, there is potential to charge more for commercial users such as professional football codes.

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[45] In order to understand the use and condition of the various buildings proposed for replacement the Review had access to building assessment reports (various) prepared for the Australian Sports Commission in 2022 to 2023, AIS Bruce Campus State of the Assets, provided by the Australian Sports Commission October 2023 and ASC, AIS Campus, Bruce Strategic Assessment (not published), 2018, p. 11-13. Information provided by the AIS.

- A return above 2.5 per cent is commensurate with the government being able to make an equity-based investment which means it is funded outside the government sector. The alternative is grant funding.
- However, there are costs e.g. legal fees, in establishing a suitable vehicle for an equity investment. If the value of the equity investment is not high, these may not be warranted. While the new accommodation is a candidate for equity investment, there is no current modelling on the likely occupancy rates that the new accommodation and facilities will actually drive.
- It may be best to fund the new accommodation by grant funding, with the facility size (250 or 400 beds) dependent on modelling of the likely occupancy rates. The facility revenue stream could then be proved over a period with opportunities to monetise it then reviewed (e.g., to determine value in divestment). This approach has been used for WestConnex in Sydney and may be an option for the new Western Sydney Airport.[46]
- The AIS Arena is another asset with potential commercial revenue returns. The ASC is looking at options for improving the commerciality of its operation. Again, the revenue stream would need to be proved once the Arena recommences operations.
- There is some scope for improved revenue streams for other facilities with options covered in Section 12. This could include wider use of AIS facilities by professional and overseas athletes and possible commercial services such as allied health and injury recovery.

FINDING – Rationalising and revitalising the AIS

- The consensus from stakeholder interviews was that the AIS was not what it used to be. It needs urgent funding to revitalise the campus and position the AIS to be a true world-best centre to support Australia's 2032+ Strategy, and broader Australian sport plans and organisations.
- Revitalisation should focus on high-utilisation, high-performance facilities including new accessible accommodation, a Multi-Sport Dome and a new High-Performance Training and Testing centre, along with supporting services and innovation drivers. Such an approach should position the AIS as a strengthened spine of the HP sport system. These spine services are particularly important for the middle and lower tier Olympic and Paralympic sports, consistent with achieving 'more medals across more sports.'
- In revitalising the AIS a consistent message following broad stakeholder engagement was the importance of funding sourced for high-performance infrastructure not being at the expense of funding programs for athletes or staff in high-performance or participation programs. Both are critical for successful outcomes in the lead up to Brisbane 2032.

Recommendation 2: A new Athletes' Village at Bruce

The existing Athletes' Village should be demolished (with attention paid to optimising results for embedded carbon) and replaced with an inclusive, accessible multi-storey accommodation facility capable of housing 250 athletes in various room configurations to accommodate athletes and their families and or carers.

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[46] J. Wiggins, 'Western Sydney Airport to consider IPO when sold off by Commonwealth', *Australian Financial Review*, 27 December 2018.

Given the potential for future commercialisation opportunities around greater utilisation of the AIS at Bruce by Team Sports and professional codes, a 400-bed facility should also be modelled and costed.

Design principles must incorporate indigenous cultural practices informed by and led by local traditional owners, Ngunnawal and Ngambri, together with Indigenous elite athletes with lived experience. The Review noted an indicative capital cost of $85 million which would need to be reviewed and confirmed in the final business case.

Recommendation 3: Investment in a new Multi-Sports Dome at Bruce

The Review recommends investment in a Multi-Sports Dome to provide an all-weather, indoor training facility, with integrated facilities for testing and analysis.

The Multi-Sports Dome can be climate controlled to replicate various climatic conditions including, a safe controlled thermoregulated environment for para-athletes. It would include a four lane, adjusted athletics track, jumps and throwing areas, a full-sized synthetic field suitable for various football codes, multi-sport training and supporting engineering and sport science capabilities. It would be the first such facility in Australia.

The Review noted the indicative, updated capital cost of $83 million would need to be reviewed and confirmed in the final business case.

Recommendation 4: Investment in a new High-Performance Training and Testing Centre at Bruce

The Review considered that a new High-Performance Training and Testing Centre incorporating applied sport science and sports medicine was preferable to refurbishment of existing degraded buildings.

The new Training and Testing Centre would accommodate a combination of sports, including gymnastics, weightlifting and winter sports. It would also include facilities for newer 'millennial' sports such as skate, sport climbing, BMX, mountain bike, and sports with aerial requirements, which do not have suitable high-performance training facilities elsewhere in Australia.

The total cost indicative capital cost of $70 million needs to be confirmed in the final business case.

Recommendation 5: $10 million for second pass business cases and a capital funding investment envelope of up to $250 million for a new Athletes Village, a new Multi-sports Dome and a new High-Performance Training and Testing Centre, with final costs and specifications for new facilities to be confirmed by the end of 2024

The Review considers these investments urgent and necessary to upgrade and revitalise the AIS Bruce campus to ensure the AIS remains fit-for-purpose to deliver on its legislated objectives well into the future. It would also fulfil its nearer term obligations in support Australia's High-Performance 2032+ Strategy in the lead up to the Los Angeles 2028 and Brisbane 2032.

The proposed new accommodation (indicative 2023-24 cost of $85 million) was seen as critical by most stakeholders, is consistent with best practice internationally and will deliver superior value-for-money compared to previous options considered. The Multi-Sports Dome (indicative 2023-24 costing of $83 million) will provide a fully para-accessible, climate controlled multi-disciplinary indoor training, testing and analysis space that is unique in Australia. The High-Performance Training and Testing Centre (indicative $70 million budget envelope) would replace ageing assets (including the gymnastics hall) and provide particular support to gymnastics, winter sports and newer 'millennial' sports which lack suitable facilities elsewhere in Australia and include solid medal prospects (e.g. skate, sport climbing, mountain bike and aerial sports).

Lower cost options, while not preferred by the Review, could canvass equity funding of the accommodation and a $29.6m program of four facility upgrades in place of the High-Performance Training and Testing Centre

(these upgrades are outlined on p.31, footnote 48 but the Review does not see them as representing value-for-money).

Figure 6.2. Map of the AIS with the proposed new facilities

7. Funding the AIS

The ASC requires a more sustainable financial footing

7.1 The Government should provide $10 million in administrative funding to the ASC to allow it to prepare second pass final business cases for a new Athletes' Village (indicative 2023-24 cost of $85 million), a new Multi-Sports Dome (indicative 2023-24 costing of $83 million) and a new High-Performance Training and Testing Centre (indicative $70 million budget envelope).

7.2 The Review considers these investments urgent and necessary to upgrade and revitalise the AIS Bruce campus to ensure the AIS remains fit-for-purpose to deliver on its legislated objectives well into the future. It would also fulfil its nearer term obligations in support Australia's High-Performance 2032+ Strategy in the lead up to the Los Angeles 2028 and Brisbane 2032.

7.3 A capital funding investment envelope over the forward estimates of up to $250 million is proposed to cover the capital costs of the three facilities, with final costs to be confirmed in the second pass business case. ASC reserves should be used as far as possible for demolition and maintenance, including the demolition of the existing Athletes' Village ($7.6 million).

7.4 A commitment in the 2024-25 Budget on the planned investments for the AIS is prudent, while allowing suitable detailed planning and costings to be confirmed.

Funding new facilities should not reduce investments in sports programs

7.5 Funding for high-performance sports infrastructure and sports programs should not be a zero-sum game. In developing the AIS, funding should not be taken from any of the existing high-performance programs that will be essential for the Olympic and Paralympic Games and other major events.

7.6 As noted previously, while many of the major sports draw in large paying crowds and sponsorship, a fully commercial model is not feasible across many sports and events. Many Olympic and Paralympic sports require government funding including via NSOs and NSODs.

7.7 The AIS and members of the NIN are also reliant on federal, state and territory funding, especially for the construction and operation of their facilities. Mr John Coates AC noted "It is not realistic for private sector (investment) other than partnering with, for example, universities, to co-invest in new accommodation and sport science technology and research. Philanthropists typically want to sponsor athletes not sports infrastructure".[47]

7.8 The task for the Australian Government is to decide the relative funding for sport compared to its other priorities within a tight fiscal environment. It must then reach the right balance between funding for sports infrastructure, sports programs and athletes. Ensuring sporting participation and success for target groups is an important part of this balance.

7.9 Rowing Australia[48] has highlighted the inextricable link and need to ensure program funding levels align with fit-for-purpose facilities. Pathway and performance outcomes are fundamentally compromised where these interlocking components are not aligned.

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[47] In conversation with Mr John Coates AC, Vice-President, International Olympic Committee, 20 November 2023.
[48] Rowing Australia, Supplementary submission to the *Independent Review of the AIS Infrastructure*, 2023.

7.10 While the new AIS assets will have both capital and operating costs, the risks that operating costs might reduce other sports funding should be offset by rationalisation of AIS as outlined in Sections 7.5 and recommendation 7. The Review assumes that wider sports program funding will be a consideration in the lead-up to Brisbane 2032.

Solvency and the impact of depreciation

7.11 In response to concerns raised in respect of the annual operating losses incurred by the AIS, the Review examined financial data for the ASC. It concluded that the ASC is currently solvent, with sufficient current assets to meet current liabilities. While this position is expected to deteriorate somewhat over the forward estimates, it is not yet predicted to reach a point where the ASC is in financial jeopardy.

Table 7.1. ASC ability to cover short-term obligations with current assets (2023-24 Budget Estimates)

	2022-23	2023-24	2024-25	2025-26	2026-27
Current Assets ($'000)	174,066	127,619	88,384	79,166	70,209
Current Liabilities ($'000)	6,665	9,230	8,720	8,512	8,304
Current Ratio	26.59	13.87	10.18	9.35	8.50

7.12 The ASC also has funding available in cash and reserves that provides some buffer against insolvency. Although insolvency is not currently considered a risk[49], managing against an insolvency event is a consideration.

7.13 The 2023 DBC suggests that without additional government funding and in undertaking the full asset maintenance and replacement program, the ASC could run out of reserves and become insolvent by 2026-27. The ASC has, in the context of this Review, advised that, based on current budgeting and spending practices, cash reserves are now in better shape and the risk of those running out has been pushed to the early 2030s.

7.14 Except for the impact of depreciation expenses, the ASC is generally profitable, with sufficient revenue from government and other sources to cover its operational and grant expenses. There is likely to be limited opportunity for the ASC to reduce expenditure without reducing staff numbers or compromising the ASC's investment in sport and sporting grants.

Unfunded depreciation means pressure on maintenance and asset replacement capacity

7.15 Stakeholders have raised concerns that the ASC faces issues with depreciation and the capital works that need to be undertaken. The 2023-24 Budget Papers state that "The ASC is budgeting for an approved deficit of $9.6 million in 2023-24 representing the unfunded depreciation of the ASC".[50] Similar reports have been made in previous years and are expected to be made into the future (see Table 7.3).

Table 7.2. ASC reported/budgeted operating deficits attributed to unfunded depreciation

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[49] Based on the ASC 2022-23 Annual Report and discussions with the ASC; ASC, '2022-23'Annual Report, ASC, 2023.
[50] Commonwealth of Australia, *Portfolio Budget Statements 2023-24 Budget Related Paper No. 1.9 – Health and Aged Care Portfolio,* Department of Health and Aged Care, 2023, health-portfolio-budget-statements-budget-2023-24.pdf, p. 246.

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Deficit ($m)	5.1	13.7*	14.9*	7.9*	16.9^	9.8	9.0	9.0	30.9#	25.0#	9.6	7.9	8.8	8.8

** deficit attributed to unfunded depreciation and differences in timing of when revenue is received and expenditure incurred*
^ deficit attributed to unfunded depreciation and one-off costs associated with transition to new strategy
 # deficit attributed to unfunded depreciation and impacts of COVID-19

7.16 The 2023 DBC states that the ASC commenced receiving depreciation funding in 1999-2000. However, this funding has never been sufficient to cover actual depreciation incurred or to establish reserves capable of meeting necessary minimum asset maintenance and replacement requirements. Current funding levels for depreciation associated with facilities in Bruce (approximately $8m) are well below the actual depreciation incurred for ASC assets (approximately $20m).[51]

7.17 The ASC has therefore struggled to maintain and replace assets. Maintenance funding has had to be rationalised, with funding historically shifted between assets according to preferences of the day. Some assets have not received required routine maintenance and are now in increasing need of 'catch up' investment.

7.18 As a result of age and lack of attention, AIS facilities are becoming increasingly more expensive to maintain at existing standards. The ASC has also lacked the available capital to transition to newer technologies that could upgrade facilities and help reduce maintenance expenses.

7.19 It is of note that deficits arising from unfunded depreciation expenses are reported by a number of Commonwealth entities. These include the Australian Securities and Investments Commission, CSIRO and SIA.[52]

The ASC should rationalise AIS assets

7.20 Annual funding appropriations include funding for depreciation expenses, with the policy behind this determined on a whole of government basis (i.e. this is outside the ASC's control). Simply increasing the depreciation expense appropriation for the ASC is not a viable option.

7.21 The ASC, like all Australian Government entities, is expected to fund capital expenditure through annual funding appropriations, cash holdings, and external revenue, or through the New Policy Proposal (NPP) process. At 30 June 2023, the ASC held around $45 million in cash on hand and $120 million in term deposits.[53] Further, the 2023 DBC states that ASC has approximately $68 million in the Land Improvements and Building Class reserve.[54]

7.22 The ASC has scope to use its cash holdings to fund capital expenditure, notwithstanding that these funds are also required to cover operating expenses and fund sports grants. It may also be able to redirect cash to capital expenditure rather than term deposits.

7.23 The ASC has also been drawing on its reserves where annual depreciation expense funding has been insufficient. Although the balance in the Land Improvements and Building Class reserve is small, it can continue to be drawn on to fund asset maintenance and replacement in the short-term. However, without change, this will not be sustainable in the longer-term.

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[51] ASC, *AIS Site Strategy Project Detailed Business Case 2023 (draft – Commercial in Confidence)*, p. 74.
[52] In the 2023-24 Budget, agencies reporting operating deficits as a result of unfunded depreciation include the Australian Securities and Investments Commission, CSIRO, and SIA.
[53] ASC, '2022-23' Annual Report, ASC, 2023, p. 110.
[54] ASC, *AIS Site Strategy Project Detailed Business Case 2023 (draft – Commercial in Confidence)*, p. 66.

7.24 The ASC has estimated that it would need approximately $400 million in reserves to have sufficient cash available to replace all existing assets at the end of their estimated useful lives.[55] The ASC could potentially mitigate some depreciation and reserve pressures, generate some funding for capital expenditure (through sales or other revenue generating opportunities), and reduce the risk of insolvency through a program of asset rationalisation.

7.25 This provides an underlying justification for recommendation 7 on a developing a Masterplan for the divestment, decommissioning and consolidation of the Bruce campus over time. Appendix D which is a desk top review of data on key assets will be relevant for this.

An improved AIS spine

7.26 For the AIS to operate as the spine[56] of the HP sport system, there needs to be a refocussing of resources on its core activities to ensure financial sustainability. Mr Richard Telford AM,[57] a leading sports scientist and coach, also spoke of the AIS as the brain and heart of the HP sport system.

7.27 As detailed in Section 13, a review in 2018 found that a substantial proportion of the existing built assets and land were surplus to AIS requirements. The Review has drawn on the principles in a "Revision F 2018 Master Plan" which included consolidating like functions, improving efficiencies and collaboration, reducing maintenance costs and removing ageing or redundant facilities. The 2023 DBC[58,59] and condition reports for each facility provided by the AIS were also critical in charting directions.

7.28 Broadly, assets that do not fit within a high-use, high-performance strategy should be decommissioned or divested. New and retained assets should fit clearly into a new ASC divestment, decommissioning and consolidation Masterplan. The potential for those assets to generate own-source revenue (e.g. locking in anchor tenants / use arrangements) should be a core part of asset design and construction.

7.29 The divestment element of the Masterplan should cover divesting the community-use assets including the tennis courts and the GIO Stadium Canberra either to the ACT Government or an investment consortium, removing these items as balance sheet liabilities. If these assets cannot be divested to a third party they should be closed and demolished.

7.30 The consolidation element of the Masterplan should create better adjacencies between high-performance elements and achieve greater utilisation of existing building footprints. It also needs to provide a plan for essential maintenance works to high-performance facilities and other key buildings.

7.31 Depending on decisions around a High-Performance Training and Testing Centre, rectification of numerous issues noted with the High-Performance Centre (Buildings 19 and 34) in the 2023 DBC may be required. As far as possible, essential maintenance should be funded from AIS reserves.

7.32 Revitalisation should also consider rectification of the poor and very poor condition cladding, doors and stairs identified by the ASC[60] for priority AIS buildings that are to be retained and are associated with high-performance uses. These refurbishments should be included in the ASC divestment, decommissioning and consolidation Masterplan.

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[55] ASC, *AIS Site Strategy Project Detailed Business Case 2023 (draft – Commercial in Confidence)*, p. 66.
[56] AIS as a 'spine' concept in conversation with Olympic Winter Institute of Australia, 8 November 2023.
[57] In conversation with Professor Richard Telford AM, 13 December 2023.
[58] ASC, *AIS Site Strategy Project Detailed Business Case 2023 (draft – Commercial in Confidence)* – Appendix A, p. 11.
[59] Sport Australia, *AIS Canberra 2032 Infrastructure Plan Functional Design Brief*, 3 March 2023; Information provided by the ASC.
[60] Based on an undated AIS State of the Assets Report, with subsequent full audit of AIS assets report that was not complete as at November 2023. Information provided by the ASC.

FINDING – A sustainable financial footing for the AIS

- The Review's recommendations on key AIS facilities to be constructed on the Bruce campus should inform a revised ASC divestment, decommissioning and consolidation Masterplan for the Bruce campus, which draws upon AIS building and land reserve funds as far as possible.
- The divestment element of the Masterplan should cover divesting the community use facilities (i.e. assets not core to the high-performance functions of the AIS) either to the ACT Government as being the entity best placed to operate community assets or to an investment consortium. An example asset is the GIO Stadium Canberra. If these assets cannot be divested to a third party they should be closed and demolished.
- The consolidation element of the Masterplan should recommend on key rectification works to priority high-performance facilities, including the rectification of High-Performance Centre issues (Buildings 19 and 34) noted in the 2023 DBC and priority upgrades to cladding, doors and stairs.
- The consolidation element of the Masterplan should also aim to create better adjacencies between high-performance facilities and achieve greater utilisation of the existing building footprints.

Recommendation 6: Bruce campus funding not to impact funding for National sports programs

Commonwealth funding for revitalising and upgrading the Bruce campus should not negatively impact recurrent funding for high-performance sport, the NIN, and national sports programs.

Recommendation 7: Develop a Masterplan for rationalisation of the AIS

The Review's conclusion on investment in upgrading AIS assets to be fit-for-purpose and to address depreciation and maintenance issues, should inform the new ASC divestment, decommissioning and consolidation Masterplan. This should be funded via ASC building and land reserve funds as far as possible.

8. A Centre of Excellence for para-athletes

The AIS should be developed further as a Centre of Excellence for para-athletes

8.1 The AIS already offers superior camps, sports medicine and engineering services to para-athletes. The proposed new accessible accommodation and the Multi-Sports Dome will boost the services and experience that the AIS is able to offer to para-athletes. There is scope to further develop the offering to para-athletes over time including via input from universities through the formalised Sports Innovation Hub (see recommendation 9).

8.2 The Chair of the ASC noted that the flat terrain could make it the most para-accessible training site globally.[61] Paralympics Australia[62] observed that the AIS has opportunity to be the national para-hub of choice, but stakeholder and expert input would need to cover the spectrum of para-athletes' needs (mobility, vision, intellectual impairments), with testing for para-athlete classification. Mr John Wylie AC[63], said that a Centre of Excellence for para-athletes would be a great asset for Australia.

8.3 This CoE concept would link into the updated Bruce precinct, with a vital space for the wider community as an additional objective. While community engagement in the AIS should not compromise its high-performance objectives, it is important both in terms of supporting active lifestyles and broad participation in sport. It is also a part of the AIS's status as a national institution.

Recommendation 8: A Centre of Excellence for para-sports

The ASC should investigate and develop opportunities for the Bruce campus to become an internationally recognised CoE for para-sports and para-athletes.

Building on its unique site suitability, existing excellence in sport science, engineering and medical research, and with the addition of new inclusive and accessible athletes' accommodation and the climate-controlled Multi-Sports Dome, the Bruce campus will offer world class advantages for para-athletes to significantly improve high-performance training outcomes.

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[61] In conversation with ASC Chair, 10 November 2023.
[62] In conversation with Paralympics Australia, 1 December 2023.
[63] In conversation with John Wylie AC, 5 December 2023.

9. The AIS path to net zero

A comprehensive type 2 audit and on-site energy generation

9.1 The Commonwealth is committed to a Net Zero APS by 2030. The AIS Campus is a heavy user of energy and is one of the largest APS gas consumers in Canberra. With a stock of buildings between 20 and 40 years old, the ASC faces a steep challenge. This is reflected in greenhouse emissions inventory data for 2021-22 following the establishment of new reporting requirements under Net Zero APS 2030.

9.2 Previous ASC revitalisation business case studies referenced 2021-22 energy usage for the AIS campus at over 19,500,000 kWh equivalent a year, of which 60 per cent was attributed to gas consumption predominately for heating the two swimming pools and a recovery centre. This is consistent with around 40,000+ GJ of annual gas consumption (11,111,200 kWh equivalent) reported from 2010-11 through to 2019-20.

9.3 The AIS Bruce campus, located on a 65-hectare site, offers favourable opportunities to implement clean energy solutions and achieve a net zero outcome. To inform the 2023 DBC, the ASC commissioned a photovoltaic feasibility study in November 2022 considering a solar farm (ground mounted). The study was conducted assuming the decommissioned and new facilities proposed in the 2023 DBC and was intended to power the entire Bruce campus.

9.4 The proposal was for a 7.1MW photovoltaic array, but ultimately, the solar farm solution was deemed poor value for money. To inform an updated site proposal (in draft), the ASC commissioned an alternative photovoltaic feasibility study for rooftop solar. The results of this study are pending finalisation but are expected to provide better value for money.

9.5 ASC decision making on the transition to meeting the Australian Government net zero and sustainability goals, could be supported by a comprehensive (type 2) energy audit of the AIS Bruce campus. A key focus would be to tackle the gas usage for the two swimming pools and recovery centre and draw upon guidance and learnings from similar projects and expert advice.

9.6 The ACT Government Climate Change and Greenhouse Gas Reduction (Natural Gas Transition) Amendment Bill passed in June 2023 is actively pursuing a gas substitution roadmap writing gas connection bans into law. Mindful the ACT Academy of Sport is an ongoing tenant at the AIS campus, the ASC may wish to consider partnership opportunities and feasibility studies through the ACT Government's integrated energy plan to transition the gas heating to high-efficiency electric heating technology.

FINDING: the path to Net-Zero for the AIS

- The AIS is not on track to meet net zero greenhouse emissions and sustainability commitments of the Australian Government, including a Net Zero APS by 2030. Indeed, as one of the largest APS gas users in Canberra and with a stock of buildings between 20 and 40 years old the AIS faces a steep challenge.

Recommendation 9: Net Zero sustainability - audit and on-site energy generation

i. The AIS should undertake a comprehensive (type 2) energy audit

The AIS must establish a viable pathway to meeting Australian Government net zero and sustainability goals that considers both energy efficiency solutions and renewable energy generation options. As a first step, the AIS should undertake a comprehensive (type 2) energy audit of the Bruce campus, including consideration of proposed redevelopments, to identify costed energy efficiency improvements and include recommendations in final business cases.

ii. The AIS should consider on-site energy generation

Decisions around renewable energy options for the Bruce Campus need to consider on-site generation opportunities (including roof mounted solutions) and leveraging of federal and territory incentives. Energy options should be included in all business cases for investment funding.

10. Developing a collaborative Sports Innovation Hub

Support for development of a collaborative Sports Innovation Hub

10.1 Many stakeholders confirmed the importance and quality of the sports medicine, engineering, biomechanics, and other support services that the AIS delivers. Rowing Australia[64] noted that the Bruce site should become a world-leading sport science and technology innovation hub.

10.2 The 2023 DBC[65] proposes an "Australian Sports Innovation Hub that provides cutting edge research space including innovation laboratories, collaboration spaces, flexible office space, meeting rooms, childcare facilities, café and retail spaces to supercharge and link the national Sports Technology Industry". This was costed at $52.1 million, with escalation required for 2024-25 costs.

10.3 While there may be merit in something along these lines in the medium to longer term as the Bruce precinct is developed, in the immediate term a more virtual approach to sports innovation that is internally resourced should be fostered. The proposed Multi-Sports Dome includes fully integrated multi-disciplinary data capture and analytics, a sports analyst and data centre, a biomechanics lab, and an engineering innovation workshop. These updated facilities might integrate with a new Sports Innovation Hub, together with virtual networking of research and testing capability.

10.4 Further consultation on the design of this hub will be required. A model to investigate is the SASI and University of South Australia Sport Science Hub[66] which is to be delivered in mid-2024. This is a fully integrated high-performance hub, research and learning laboratory and teaching spaces with $68 million in funding from the South Australian Government and $20 million from the University.

10.5 The Innovation Hub might centre on more clearly identified areas of expertise for different Universities via a Community of Practice covering sports rehabilitation, female sports performance, managing infection risk, Paralympic performance, cutting edge sports equipment technology and various dimensions of testing etc. It is clear that many Australian universities excel in sport science and related disciplines, including UC and the Australian National University that are local to the AIS.

10.6 The Hub could leverage off the appetite of UC to work with AIS to develop a sport- style university with a focus on para-athletes and women. Input from the North Canberra Hospital may be relevant. This focus would align with AIS strategy to be world class CoE for para-athletes.

10.7 Other universities of note in the hub context are the University of Queensland, Griffith University, the University of Western Australia, the University of Sydney, Deakin University and many others.[67] The ASC, the Commonwealth Department of Education, the Universities in Canberra and potentially, other partners such as the CSIRO, could develop the initial networked Sports Innovation Hub model.

10.8 It is of note that Rowing Australia[68] is searching for performance advantages through new technologies and leveraging off technology partnerships internationally and across Australia. In collaboration with the AIS, the Austrian Rowing Federation, some key universities and other parties, Rowing Australia is innovating to optimise training and performance outcomes through the use of artificial intelligence.

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[64] Rowing Australia, Submission to the Independent Review of the AIS, 2023.
[65] ASC, *AIS Site Strategy Project Detailed Business Case 2023 (draft – Commercial in Confidence)*, p. 120.
[66] University of South Australia, *Go team! UniSA and SASI to deliver world-class sport, research, and education precinct* [website], https://www.unisa.edu.au/media-centre/Releases/2023/go-team-unisa-and-sasi-to-deliver--world-class-sport-research-and-education-precinct/, (accessed 14 December 2023).
[67] Art of Smart, *Top 5 Sport Science schools in Australia for 2022 revealed* [website], Top 5 Sport Science Schools in Australia for 2022 Revealed | Art of Smart, (accessed 14 December 2023).
[68] Rowing Australia, Supplementary submission to the *Independent Review of the AIS Infrastructure*, 2023.

Innovation and commercialisation directions could be adapted from the CSIRO model

- The AIS campus is regarded globally and nationally as delivering cutting edge sports medicine, back of house engineering and sports tech innovation. This is a key strength and is relied upon across the HP sport system to provide essential services to allow our athletes to be the best they can be.
- The AIS is the sporting equivalent of the CSIRO but has yet to achieve sufficient levels of commercial acumen to generate noticeable commercial dividends. Technology such as the first Sport GPS tracking device and swimming timer touch plates were conceived at the AIS but commercialised by others – a missed opportunity.
- The CSIRO, through a $240 million innovation fund enabled by the Commonwealth during the 2017-18 global financial crisis (GFC), supercharged its ability to accelerate deep technology development and reinvest economic returns from commercialisation back into science. This was undertaken by establishing an independent capital entity (Main Sequence Ventures (MSV)) in which CSIRO is a main investor and provides administrative support through a Memorandum of Understanding.
- MSV collaborates with the global community of co-investors to support and drive scalable start-up companies. Subsequent investment rounds have resulted in over $1 billion in total funds under management.
- The AOC said[69] "We also believe that the AIS should be the CSIRO for sports research, putting knowledge into finding better ways of competing, with better technology and sport science." Liaison with the CSIRO could feed into the proposed Sports Innovation Hub.
- There is a compelling opportunity for the ASC to pursue active AIS engagement with the CSIRO and learn from and connect with MSV or similar to build a strategic pathway and capability in commercialising the intellectual property it generates.

Recommendation 10: Formalise the Sports Innovation Hub

In conjunction with critical stakeholders, the ASC should formalise a Sports Innovation Hub (either virtually or in an underutilised building on the Bruce campus) to lead innovation and commercialisation of cutting-edge research in sports medicine, rehabilitation, materials science, sport science, biomechanics, engineering and artificial intelligence. There is potential for support from stakeholders including UC, the ACT Government including the CIT and the North Canberra Hospital, sports technology companies, venture capitalists and other members of the NIN.

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[69] "AOC wants the AIS to Stay", quote attributed to Matt Carroll AM, CEO of the Australian Olympic Committee; M. Dinjaski, 'Australian Olympic chief backs 'groundbreaking' AIS to stay in Canberra', *The Canberra Times*, 11 December 2023.

11. Integrating the AIS into the wider local precinct

Ongoing consultation on development of the Bruce precinct

11.1 There is a clear appetite from the ACT Government and the NCA for the AIS to be part of the wider Bruce precinct. The AIS's 65-hectare site is highly strategic and cooperative planning across Commonwealth and ACT stakeholders is needed to optimise the site.

11.2 Part of this could include the collaborative Sports Innovation Hub and the CoE for para-sports. Liaison would be required with the ACT Government and the NCA on planning and approvals for development of the precinct.

11.3 For both the immediate AIS investments and the wider, cooperative precinct development, planning processes will need secure wide community input, including local traditional owners (Ngunnawal and Ngambri) input. The designs and approaches for the AIS site and precinct should be flexible enough to incorporate community ideas and foster community engagement.

11.4 Land should not be divested in an ad hoc fashion but only as part of a broader masterplan. This would require appropriate zoning that will support both the financial sustainability of the AIS and broader community outcomes, including Paralympic excellence, social housing and quality jobs. Optimal land use would also be clearer once there are final decisions on the GIO Stadium Canberra and other priorities for the precinct.

11.5 The Review did consider an option for a commercial hotel as part of the precinct, however stakeholder engagement suggested that this was premature. But again, the GIO Stadium Canberra future would need to be certain and the demand for a hotel may emerge over time with the North Canberra Hospital and the eventual planned addition of a light rail route to Belconnen. UC plans may also be relevant regarding demand for a hotel.

CSIRO Ginninderra may be a relevant model for the wider future of the AIS Bruce Precinct

- Development in the Bruce Precinct may at some point include residential development on or near the AIS site. One model that may provide some insights is CSIRO Ginninderra[70] (also known as Ginninderra Experiment Station), a 701-hectare area of land between Belconnen and the Barton Highway in Canberra's north. CSIRO is the registered owner and lessee for the Crown Lease for the property.
- Since identifying that the property was underutilised for agricultural research in 2011, CSIRO began exploring the options for future use of the property. In 2015, CSIRO commenced broad community consultation and sought an Amendment to the National Capital Plan (NCP) to facilitate new opportunities for sustainable urban development on the property and the relevant science that CSIRO could contribute.
- During the 60 years in which CSIRO has managed Ginninderra, the city of Canberra has grown significantly and the property is now in the midst of residential development that has occurred in the suburbs of Fraser, Spence, Evatt, McKellar, Giralang, Crace, Hall and Nicholls.
- In 2016, the site was reclassified as 'Urban' on the General Policy Plan for Metropolitan Canberra through an Amendment to the NCP. The rezoning has paved the way for CSIRO to approach the market to identify interest in a sustainable urban development informed by science and innovation. CSIRO has a vision to enable an integrated urban design that creates a new, diverse and distinctive place in Canberra for residents and visitors alike.

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[70] CSIRO, *Ginninderra Project* [website], https://ginninderraproject.com.au/, (accessed 21 January 2024).

FINDING: Opportunities in the wider Bruce precinct

- There is a clear appetite from the ACT Government and the NCA for the AIS to be part of the wider Bruce precinct. The AIS's 65-hectare site is highly strategic and cooperative planning across Commonwealth and ACT stakeholders is needed to optimise the site.
- Land should not be divested in an ad hoc fashion but only as part of a broader Masterplan. This would require appropriate zoning, that will support both the financial sustainability of the AIS and broader community outcomes, including Paralympic excellence, social housing and quality jobs.

Recommendation 11: Continue consultation to establish the Bruce precinct

The AIS should continue to work with UC, the ACT Government, including the CIT and the North Canberra Hospital, to support the establishment of the Bruce precinct to explore joint opportunities in health and health services, education, sports participation and innovation and productivity. This should include development of a strategy for the AIS to become a corner stone of the new precinct reflecting its status as nationally recognised institution.

12. Leveraging new users and revenue for financial sustainability

12.1 The financial sustainability of the AIS hinges on increasing revenue flows via higher utilisation and cost recovery for accommodation, high-performance facilities and sport science infrastructure. To support a 'world best' facility in an economy the size of Australia's requires lateral thinking and a strategic, co-investment approach that attracts funding from government, professional sport and the corporate sector.

Potential new users for the AIS

12.2 There is a real opportunity to engage and expand the AIS's campus community of users through expanded stakeholder scoping and sounding. The 2023 DBC saw wider delivery on government objectives and this could be a major design consideration for the Bruce Precinct. Expanded use could draw in both subsidised users (with scope to benefit from economies of scale) and commercial users.

12.3 Additional Defence uses could be investigated on the assumption that revenue from Defence should offset actual costs, with synergies potentially allowing better asset utilisation. Invictus Games[71] cited commercial access and cost barriers for use of the AIS facilities by Invictus Teams. There may be possible options to mitigate this barrier via the Paralympic CoE model.

12.4 Australian Government representatives including DFAT, Ministers for Defence and for Sport, and the Governor General recently attended the Solomon Islands Pacific Games (SOL2023). The Federal Sports Minister views the sports diplomacy opportunity as including the Oceania Region.

12.5 Investigation is required with DFAT as to whether the AIS site could be leveraged to additional opportunities for Pacific athletes to build their skills via the AIS high-performance facilities. There may be an opportunity given DFAT announced on 7 March 2023 Mr Justin Mohamed as Australia's inaugural Ambassador for First Nations People, to support Indo-Pacific diplomacy ties[72].

12.6 A number of NSOs have key relationships with international sports teams. Further engagement work with NSOs and local sports professional associations and codes including A-Leagues, Cricket and Rugby could build a database of potential commercially based AIS users. This could be linked to iterative development of the proposed Sports Innovation Hub in the medium term.

12.7 Drawing on this and other models such as that of CSIRO, a commercial business arm of the Sports Innovation Hub could be developed as a one-stop high-performance business development, relationship and account management. There is the related opportunity to access the national network of NIN/NSO facilities and infrastructure to support the commercial service offering, especially to overseas clients.

12.8 Specific areas of expertise could be developed for this commercial arm of the Sports Innovation Hub including rehabilitation and conditioning services for professional sports teams, training camps for international teams and corporate leadership programs. There may be specific opportunities to support international players in the recovery from ACL injuries[73] (especially for female athletes) and concussion. Commercial offerings should

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[71] Invictus Australia, Submission to the *Independent Review of the AIS Infrastructure*, 2023.

[72] DFAT, *Office for First Nations International Engagement/Ambassador for First Nations People* [website], https://www.dfat.gov.au/international-relations/themes/indigenous-peoples/ambassador-first-nations-people, (accessed 30 January 2024).

[73] Note Female athletes tear their anterior cruciate ligaments (ACL) at a higher rate in certain sports including basketball, team handball, and soccer. The participation in sports by girls has increased dramatically, in recent times; Journal of Orthopedics, 'The female ACL: Why is it more prone to injury?', *Journal of Orthopedics*, vol. 13, no. 2, 2016.

be professionally marketed to the NIN, professional sports bodies and the international sporting world more generally.

12.9 The ASC has noted scope for the commercial expansion of the AIS via Allied Health Services. Currently athletes go off-site for scans when injured. These and other allied health services could be offered in under-utilised AIS buildings and structured so that they could be used by AIS athletes and the general public. Specialists could serve both sets of clients but with separate clinical rooms to minimise the infection risk to athletes.

Scope for an expanded role in football

Soccer A-League competitions

12.10 In March 2023 the Sydney Morning Herald Reported[74] that the soccer A-League competitions are set to expand into Canberra and Auckland for the 2024-25 season. Both cities have been designated 'preferred market' status by the APL. The eventual owners of the Canberra licence are expected to also absorb the standalone A-League Women's team Canberra United, which is currently run by Capital Football, the ACT federation.

12.11 The APL made a submission to the Review[75] noting that it is a sport and media entertainment business that operates, markets and commercialises Australia and New Zealand's professional domestic men's and women's football competitions. It said that A-League Men's has 12 teams and A-League Women has 12 teams but Canberra United is currently a standalone women's team owned by Capital Football, the ACT's governing body for football. The A-League clubs are all owned by private investors from Australia, New Zealand and internationally.

12.12 The APL says that Canberra United is currently exclusively based at the AIS for all training and high-performance purposes. This includes use of both fields and indoor high-performance facilities. Pre-season training begins in early September and continues until the end of the A-League season in early May.

12.13 The APL confirmed that a new licence has been awarded to Auckland ahead of the 2024-25 season, while Canberra has been identified as the other priority market. In November 2023, negotiations were underway with parties interested in obtaining the licence for a Canberra team. Subject to final negotiations with interested investors, the new Canberra team is scheduled to first compete in the A-Leagues in season 2024-25, kicking off in October 2024.

12.14 In 2019, the ACT Government announced the Throsby, ACT Home of Football, with the detailed design to take place in mid-late 2023.[76] It is partnering with Capital Football to deliver a facility that will include multiple outdoor football fields, indoor futsal courts, office space for Capital Football staff and associated amenities. It has been designed to support a range of community and high-performance programs for Capital Football and its affiliated clubs and provide community open space.

12.15 The APL confirms that with major funding assistance from the ACT Government, Capital Football is building a new Home of Football at Throsby. It would also be the venue for Canberra United's home games in the A-League.

12.16 However, the APL notes that due to unforeseen circumstances including the global pandemic, this facility is now not expected to open until 2026. This means it is not a viable option for the first two expected seasons of the expansion club.

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[74] V. Rugari, 'A-Leagues to add Canberra, Auckland teams in $50m expansion', *The Sydney Morning Herald*, 15 March 2023.
[75] Australian Professional Leagues, Submission to the *Independent Review of the AIS Infrastructure*, 2023.
[76] ACT Government, *Throsby Home of Football* [website], https://yoursayconversations.act.gov.au/throsby-football, (accessed 15 December 2023).

AIS as an alternative to Throsby

12.17 Capital Football has indicated there is room within the overall footprint of the AIS land to build facilities to accommodate a full men's and women's program for a new Canberra A-League team, although this is not currently planned or funded. The APL also notes that in light of the major delays in building facilities at Throsby and also in the interest of providing a range of options to potential investors, the following training options were identified:

- the AIS site
- UC sporting facilities
- partnering with local NPL clubs.

12.18 APL said that in discussions with potential investors for a new A-Leagues club in Canberra, it has become clear the AIS was the clear preferred option for investors. The significant achievements of the AIS were well understood as was the understanding of potential partnerships with the AIS on high-performance and innovation.

12.19 APL concluded that "potential investors also outlined the possibility of partnering with the AIS to make infrastructure investments in the site for mutual benefit. While the nature of this infrastructure investment is still to be formulated, a potential football CoE at the AIS would be very attractive."

12.20 The ACT Brumbies Rugby Union team[77] advised that previously it has used the AIS facility for a multitude of talent identification and development, pathway and community rugby camps and events. Access to the accommodation, dining and various elements of performance support has provided a point of difference experience for these cohorts. It favoured using the AIS as a place for substantial innovation, enterprise and future-focused for the sporting and general community of Australia.

12.21 The ACT Government has confirmed that its commitment to the project at Throsby stands and is not contingent on Federal funds. However, the priority within this commitment is for the community-use aspects of the project, with the high-performance elements included in the absence of any other opportunities for provision at this time.

12.22 The Multi-Sports Dome, which is supported as an immediate term investment, [78] includes an indoor multi-sport full sized synthetic field suitable for football, rugby union and rugby league and other multi-sport training. In view of this and the APL advice, there is a need to examine the extent to which the AIS would be better placed to meet APL and other high-performance football needs. The new accommodation should help to attract professional football codes, noting that the ASC advised that a rugby league team recently did a camp there despite it being clear that the accommodation was sub-standard.

12.23 ASC has observed that there could be potential for professional football codes in Canberra to relocate to an upgraded GIO Stadium Canberra and use key AIS facilities such as the recovery centre. This could bring the AIS commercial user-charge contributions both for accommodation and services.

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[77] ACT & Southern NSW Rugby Union Limited, Submission to the Independent Review of the AIS Infrastructure, 2023
[78] ASC, *AIS Site Strategy Project Detailed Business Case 2023 (draft – Commercial in Confidence)*, p. 110.

Recommendation 12: An AIS commercial division to better promote its services and facilities

The AIS should:

i. Develop (in the medium-term) a commercial division with offerings including residential rehabilitation and conditioning services for professional athletes and teams, (including screening of potential elite professionals), training camps for international teams and corporate leadership programs. This could draw on the CSIRO commercialisation initiatives and be professionally marketed to the NIN, professional sports bodies and the international sporting world more generally.

ii. Review opportunities for Allied Health Services and professionals to establish a presence in under-utilised AIS buildings on the Bruce campus to offer services to AIS Athletes as well as the general public with separate clinical rooms for athletes and the public. Co-location with Government agencies such as the Sport Integrity Australia (SIA) could be considered.

iii. Work with First Nations organisations to promote and support sports camps for indigenous athletes in a culturally safe environment.

iv. Work with DFAT to investigate whether there is justification for additional residential sports diplomacy programs, particularly in the Asia Pacific region, and potentially in areas including football, (rugby and soccer), women's sports, para-athlete support, sport science and sports medicine.

v. Work with Defence to explore options to expand the use by Defence of the Bruce campus, including for Invictus athletes, the Australian Defence Force Academy and Duntroon.

vi. Investigate whether the ACT Government could relocate the high-performance aspects of its 'home of football' development in Throsby to the Bruce campus to also leverage off the existing AIS campus and to support ASC efforts to increase its commercially-based support football / soccer teams.

13. Comparison with overseas facilities and previous business cases to support the recommendations

The AIS has a broad focus across its Bruce campus and other facilities

13.1 The high-performance AIS campus in Bruce has been widely regarded as an international leader and innovator with a number of countries replicating core aspects from the AIS approach. There are 35 buildings and venues on the Bruce site as well as facilities at Yarralumla (Rowing, ACT). There are 11 NSOs on-site at the Bruce campus with 6 NSO residential programs also located there.[79]

13.2 Appendix B details the current tenants that are permanently operating out of the Bruce campus. The 2022-23 ASC Annual Report notes that $140.3 million of High-Performance Investment was allocated directly to NSOs of which $25.7 million was to support pathways initiatives in 42 NSOs. $14.9 million went to directly support more than 820 athletes, including 36 athletes that have transitioned out of high-performance sport.

13.3 AIS activities are detailed in each ASC Annual Report. Based on the ASC 2022-23 Annual Report, its major activities centre on major sports events, camps, conferences, targeted programs, engineering, cooperative programs and research.

Competitor initiatives

13.4 High-performance initiatives observed in other countries are 3D Performance Capture Halls, (the proposed Multi-Sports Dome could include a 3D Data Capture Space).[80] Other overseas facilities of note are a cognition suite, cryotherapy, sleep monitoring, swimming flume and a wind tunnel. These types of facilities might be examined in medium term plans for the AIS but should not duplicate planned NIN investments such as the wind tunnel planned in South Australia for cycling.[81]

13.5 Appendix E provides a high-performance infrastructure comparative across some of our major competitor countries. It includes facilities mentioned by stakeholders (such as the Japanese facility Ajinomoto and INSEP in France, which both drew on the AIS model).

13.6 Stakeholders noted that the United Kingdom has invested heavily since the London Games with excellent results. Stakeholders also emphasised the value of having accessible high-performance services. It was noted that the Netherland's Papendal campus is particularly para-accessible, with further opportunity to leverage the flat AIS topography in Bruce for para-athletes.

13.7 The United States College system was also mentioned as being highly commercialised and very strong. It may provide some comparators and benchmarks. However, caution should be exercised as this system differs greatly from the Australian HP sport system.

13.8 Canada operates across a network with some similarities to the NIN but without a central institute of sport like the AIS. The Canadian Olympic and Paralympic Sport Institute Network[82] "delivers sport science and medicine, coaching, research and innovation, education and game plan services to power podium performances

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[79] ASC, *2022-23 Annual* Report, 2023, p. 67.
[80] Optical 3D motion tracking provides the most accurate and in-depth analysis of movement for athletes of all sports and skill levels.
[81] C. Andrews, 'Adelaide's new tunnel is Aussie Olympic cyclists' secret weapon', *Create Digital (Engineers Australia)*, 1 March 2019.
[82] Coaching Association of Canada, *Canadian Sport Institute – Ontario* [website], https://coach.ca/canadian-sport-institute-ontario, (accessed 24 January 2024).

and help Canada win more medals". It includes four Canadian Sport Institutes (Pacific, Calgary, Ontario and Quebec) and three Canadian Sport Centres (Saskatchewan, Manitoba and Atlantic).

13.9 There is a New Zealand Campus of Innovation and Sport[83] which is not solely focused on high-performance athletes. It states that it is "a world class facility where professional teams, community groups, and corporate guests can train, recover, eat, sleep, and meet". It has 450 beds in its accommodation facility (one of New Zealand's largest), with options ranging from dorm style wings to luxury apartments.

The focus of prior AIS business cases

Various options for the future of the AIS were developed between 2017 and 2019

13.10 The recommendations in Section 6 draw on prior work between 2017 and 2023 on ensuring the AIS is fit for purpose. Throughout the iterations of strategic assessments, business plans and masterplans, the recurring theme has been the need to revitalise the Bruce campus.

13.11 The current AIS campus at Bruce is seen to compromise the ASC's and the AIS' ability to achieve their strategic objectives, as the infrastructure is ageing and many buildings are no longer fit-for-purpose. As already noted, the model for the delivery of high-performance sport has evolved and much of the day-to-day training of athletes takes place within the NIN.

13.12 The business need and core services required, together with the facilities needed to support AIS service delivery, were investigated in a Strategic Assessment prepared by lead consulting firm, Ontoit, in March 2018.[84] Three strategic options were considered covering:

i. continuation of the existing operations and mothballing surplus assets (Option 1)

ii. decentralisation of facilities and services with the entire AIS Bruce campus divested and the ASC and AIS relocated to office agile accommodation (Option 2)

iii. the redevelopment of the campus to transition to new world-class high-performance facilities and divest surplus land and assets with the possibility of divesting surplus land (Option 3).

13.13 Option 3 was determined to be the preferred strategic option as it delivered an effective world-class high-performance precinct with fit-for-purpose high-performance facilities to support the future needs of Australian sport. The divestment initiatives recommended also released the ASC from maintaining and operating surplus assets.

13.14 Planning then centred on the latter option of consolidation and divestment, co-locating complementary functions around core buildings so that highly used facilities are maintained at the centre of the site. This consolidation into a smaller footprint would allow for divestment of unused land and assets for future development or community use.[85] The reduced financial burden would be enhanced by revenue from divestment to fund site transition and high-performance outcomes.[86]

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[83] New Zealand Campus of Innovation & Sport, *New Zealand Campus of Innovation & Sport* [website], https://www.nzcis.co.nz/, (accessed 24 January 2024).
[84] ASC, AIS Campus**,** Bruce Strategic Assessment (not published), 2018.Information provided by the ASC.
[85] ASC, AIS Campus, Bruce Strategic Assessment (not published), 2018., p. 20.
[86] ASC, AIS Campus, Bruce Strategic Assessment (not published), 2018., p. 31.

13.15 The consultant engagement finished in March 2019, with no further engagement by the ASC following contract completion in mid-2019. There was then public mention of the findings of a Draft 2018 Masterplan which concluded:

i. the best option for the AIS was to keep it in the ACT

ii. it would cost more than $1 billion to relocate the AIS campus to Queensland

iii. it would cost approximately $200 million to refurbish the AIS Bruce campus.[87]

13.16 In 2019, the ASC prepared its 'AIS Site Revitalisation Project' initial capital investment proposal to progress project plans for the site. Options considered in this proposal included development of a new campus in other locations (such as SEQ), investment in new facilities at the existing campus, as well as the sale and lease back of the existing campus. Ultimately, the only option assessed as viable was revitalisation of the existing campus.

13.17 In August 2020, the ASC submitted its 'Modernisation Proposal' to Infrastructure Australia (IA), and was added to IA's Infrastructure Priority List,[88] although the listing was subsequently removed in 2022 due to a change in IA's remit.[89] The project capital investment was valued at an estimated cost of $300 million.[90]

13.18 A succession of updates followed that eventuated in the ASC preparing a DBC for review. Most of this subsequent 'evolution' of work from the 2018 Masterplan is understood to have been completed in-house by the ASC.[91]

The focus of the 2023 DBC is accessible accommodation and key facilities

13.19 The 2023 DBC developed a new Masterplan proposal to revitalise the AIS Campus through constructing new facilities and upgrading existing infrastructure. The priority investments were listed in in the AIS Infrastructure Plan 2032+.

13.20 Priority investments were nominated as:

i. Secure and accessible residential accommodation suitable for elite athletes identified as a critical to the success of the AIS.[92] It enables high-performance camps and allows co-located access between accommodation, facilities and support services that many sports seek.

ii. Investment in a new multi-sports indoor Multi-Sports Dome

iii. A new High-Performance Training and Testing Centre

iv. A Sports Innovation Hub.

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[87] ACT Government, *ACT Legislative Assembly Minutes of Proceedings,* Tuesday 24 October 2023*,* Canberra, p. 10.
[88] Infrastructure Australia, *Removed proposals from the Infrastructure Priority List* [website], https://www.infrastructureaustralia.gov.au/removed-proposals-infrastructure-priority-list, (accessed 20 January 2024).
[89] Infrastructure Australia, *Removed proposals from the Infrastructure Priority List*.
[90] T. Holmes, Big changes flagged for sports funding from Canberra as rift continues between John Coates and John Wylie, *ABC News*, 23 February 2020.
[91] In conversation with Ontoit, 12 December 2023 and Populous 21 November 2023; Commonwealth of Australia, 'Official Committee Hansard – Senate – Community Affairs Legislation Committee – Estimates – Thursday, 26 October 2023', 2023, https://www.aph.gov.au/Parliamentary_Business/Hansard/Hansard_Display?bid=committees/estimate/27445/&sid=0000, p. 123.
[92] ASC, *AIS Site Strategy Project Detailed Business Case 2023 (draft – Commercial in Confidence)*, p. 104.

Prior work included a focus on future financial sustainability for the AIS

13.21 The options investigated in the 2023 DBC represent considerable expenditure with the total funding sought ranging from $399.5 million ($2022) to $571.1 million for the preferred option, which was the high-cost option. An intended outcome of the 2023 DBC Masterplan was to ensure:

- Assets are managed to ensure best use of resources in a financially stable manner.
- A property asset portfolio underpinned by effective and efficient governance.
- Some of the options considered and dismissed or not considered in the 2023 DBC included divestment of land[93] and financing options through a Public Private Partnership (PPP) model which was ruled out due to the complexities of a PPP and difficulties with governance.[94] Decentralisation and sale and lease back options were considered in the DBC and ultimately rejected.[95]

13.22 The financial challenges for the ASC and possible rectifications are discussed further in Section 7 of the Report. Recommendation 7 on a Masterplan is aligned with resolving this issue.

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[93] This option of consolidation and divestment is mostly discussed in the Initial Business Case undertaken by the ASC in 2018, but raised as a potential benefit in Table 3.3 on page 83 of the AIS Site Strategy Project Detailed Business Case; ASC, *AIS Site Strategy Project Detailed Business Case 2023 (draft)*, p. 83.
[94] ASC, *AIS Site Strategy Project Detailed Business Case 2023 (draft – Commercial in Confidence)*, p. 172.
[95] ASC, *AIS Site Strategy Project Detailed Business Case 2023 (draft – Commercial in Confidence)*, p. 130.

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APPENDIX A: Terms of Reference

Terms of Reference: Independent Review of the Australian Institute of Sport Infrastructure

Preamble:

The Independent Review of the Australian Institute of Sport (AIS) infrastructure will inform how best to invest in sports facilities to ensure the AIS remains fit-for-purpose in supporting high performance athletes. This is in the context of a national approach, that supports international competitiveness and achieving success at upcoming major sporting events, including in the lead up to the Brisbane 2032 Olympic and Paralympic Games and beyond. The Review and its outcomes will support and enhance Australian sport by providing advice on strategic investment in high performance facilities that align with Australia's *High Performance 2032+ Sport Strategy.*

The Review:

1. The Independent Review will examine the Australian Institute of Sport (AIS), including its optimal location in the context of the Brisbane 2032 Olympic and Paralympic Games and the proposed revitalisation of the existing AIS campus, with reference but not limited to:
    a) what facilities are required for the AIS to achieve its purpose and to deliver on its responsibilities;
    b) business cases previously commissioned by ASC to date, in relation to the AIS facilities;
    c) targeted consultation with key stakeholders including state and territory governments, national sporting organisations, the Australian Olympic Committee, Paralympics Australia, current and prospective athletes, sporting peak bodies and industry;
    d) the AIS facilities required by Australian athletes for the Brisbane 2032 Olympic and Paralympic Games and major events in Australia, including from the following perspectives;
        i. for each major facility, the level of investment required (short and long-term, capital and operating costs), and commercial and financial options to achieve a sustainable funding model, including opportunities for cost recovery and co-investment;
        ii. enhancing facilities available to high performance sport, with consideration of developments overseas in support of events such as the Paris 2024 and Los Angeles 2028 Olympic and Paralympic Games;
        iii. appropriate facilities for accommodation for athletes and staff;
        iv. readiness for athlete use with sufficient lead up time for the Brisbane 2032 Olympic and Paralympic Games (including infrastructure sector workforce readiness and availability); and
        v. international best practice in comparable countries (e.g. Japan, Canada, the United Kingdom, relevant European models and New Zealand) and possible financing and funding mechanisms for AIS facilities, including investments by members of the National Institute Network.
    e) the objectives and functions as established in the *Australian Sports Commission Act 1989*, and other relevant sport strategies.
2. The Review will be conducted by Independent Reviewers with relevant skills and experience and will be supported logistically by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts, with support from the Office for Sport.
3. The Review will provide a report to the Minister for Infrastructure, Transport, Regional Development and Local Government and Minister for Aged Care and Sport in the last quarter of 2023. It should provide distinct and prioritised options for consideration by government.

APPENDIX B: Current AIS tenancies and NIN facilities

B.1 Current AIS Campus Tenancies [source: ASC, 2023]

Organisation	Relationship with AIS Campus
Paralympics Australia	The AIS campus is a recognised Centre for Paralympic Excellence, acknowledging the role the site plays in supporting the development and preparation of Australian Paralympic athletes and teams.
Basketball Australia	Basketball Australia (BA) is a permanent AIS Campus resident. The BA Centre of Excellence program is located on Campus and caters as a fast track program of BA's top men and women in their pathway to graduate to the Opals and Boomers programs. BA also combines with the US National Basketball Association (NBA) to host its Global Men's Academy on AIS Campus.
Australian Capital Territory Academy of Sport (ACTAS)	ACTAS is a National Institute Network (NIN) member providing high performance services and support to ACT elite and developing athletes. ACTAS programs are formed via partnership agreements with national sporting organisations. In November 2021, the following six sports conducted negotiations with ACTAS around Paris Cycle sport partnerships – Athletics (AIS NTC), Swimming, Cycling, Hockey, Rowing and Women's Rugby 7s.
Athletics Australia	Athletics Australia conducts an ACT based Athletics programs at the AIS campus that supports athletes identified through its National Athlete Support Structure (NASS) that have the greatest potential to achieve performance targets at World Championships. Olympic, Paralympic and Commonwealth Games.
Australian Volleyball Federation	Volleyball Australia (VA) runs its National Office, Academy and training camps at the AIS. The VA Academy program is a national development program with the purpose of identifying and developing Olympic potential athletes for both indoor and beach disciplines. Athletes graduate onto the next level of the sport's pathway including Developing Beach Volleyroo programs, Asian and World Junior Championships, FIVB Beach Volleyball World Tour, North American college and European professional clubs.
The Combat Institute of Australia (CombatAUS)	CombatAUS (representing the sports of Judo, Boxing, Wrestling, Taekwondo & Fencing) utilises office space at the AIS Campus for its High-Performance Manager who coordinates all high performance training camps inside the AIS combat facilities.
Australia Sports Foundation	The Australian Sports Foundation utilises office space and meeting rooms on the AIS campus.
AusCycling	AusCycling utilise office space at the AIS campus for their Mountain Bike program.
Rowing Australia	The Rowing Australia Reinhold Batschi National Training Centre, managed by the ASC, is responsible for the training, preparation and selection of Teams to represent Australia in international competitions at Under 19, Under 21, Under 23 and Senior level; from World Cups to World Championships, the Olympic Games and Paralympic Games. The NTC program based in Canberra focuses on the men's element of the Rowing Australia High Performance Program.
Equestrian Australia	Equestrian Australia utilises the AIS campus for office space. EA undertakes High performance camps at the AIS to support riders.
Tennis Australia	Tennis Australia utilises the AIS campus for office space and the courts for its Pathways Program that is a satellite feeder program to its Junior centralised program in Brisbane.
Snow Australia	Snow Australia utilises office space on the AIS campus.
Water Polo ACT	Water Polo ACT utilises office space on AIS campus.
Prism Neuro	Prism Neuro utilises office space on AIS campus. Prism Neuro delivers movement Control Metrics to help organisations identify talent, improve performance, prevent injury, and monitor recovery. The AIS and Prism Neuro are working closely together to measure the potential of elite athletes.

B.2 NIN FEATURES: Key Assets, Operating Model and Interfacing Projects[1]

National Institute Network (NIN) partners	Year Established	Athletes	Key Assets	Operating model	Notable Projects (Institute/State & Territory)
Australian Institute of Sport (AIS)	1981	820 AIS funded athletes nationally; 68 full time athlete residents on campus (Basketball, Volleyball)	AIS Bruce campus; Yarralumla Rowing; European Training Centre (ETC), Varese, Italy; Pizzey Park facilities, Gold Coast	Public (100%); AIS is the HP operating arm of the ASC, a Commonwealth Corporate Entity (CCE)	▪ AIS Bruce campus revitalisation proposal ▪ ASC and ACT Government MOU executed 28 June 2023, expiring 31 December 2024, focussed on AIS campus revitalisation and strategic facilities (e.g. GIO Stadium) ▪ AIS Arena refurbishments, ASC, $11-12m, expected re-opening by mid-2024 ▪ AIS ETC refurbishment and accommodation project, delivered 2022 and 2023
ACT Academy of Sport (ACTAS)	1989	120 supported; 16 individual athletes; 70 host/fee for service athletes	ACTAS has a tenancy on the AIS Bruce Campus (Buildings 14 and 20 for Admin and Training/Sports Science and Medicine)	Public (100%)	▪ Canberra stadium proposal, ACT Government, (early planning phase) ▪ Throsby Football facilities, ACT Government, $33.5m, construction expected to commence 2024 ▪ University of Canberra Sports hub and precinct, as part of 20-year $5b campus master plan
New South Wales Institute of Sport (NSWIS)	1995	375 scholarship athletes; 496 supported	10 National Training Centres in NSW + 6 NSWIS & Partner Training Hubs	Public (100%); Executive Agency (Annual Report requirements)	▪ NSWIS Sport Technology Hub and training facility (new proposal) ▪ National Snowsports Training Centre (NSTC) Winter Olympic and Paralympic training facility $12.6m – completed 2023 ▪ Penrith Whitewater Stadium and Sydney International Regatta Centre refurbishments $6.7m (2023) ▪ Blacktown Exercise Sports and Technology Hub (BEST) including accommodation $100M – completed 2023 ▪ Campbelltown Sports and Health Centre of Excellence $33m (announced 2023) ▪ Sydney Olympic Park precinct revitalisation and development (Sydney 2000 Legacy site) – completion of Master Plan 2050 expected mid-2024
Victorian Institute of Sport (VIS)	1990	468 supported	Melbourne Sports Centres	Private Trustee Company	▪ La Trobe Sports Park (60Ha site), La Trobe University Victoria $200m – completed 2023 ▪ HP Sports and Stadium Precincts, Wyndham, Greater Melbourne – announced January 2024 as part of broader suburban renewal project costed at $2bn, phased completion over 10 years
South Australian Sports Institute (SASI)	1982	76 scholarship athletes	Mile End Sports Precinct	Public (100%)	▪ New SASI Headquarters (partnership with University of South Australia) $88m – expected August 2024 ▪ Wind tunnel project $15m, completed 2022
Western Australian Institute of Sport (WAIS)	1983	223 scholarship athletes	Mt Claremont HP Sports Precinct	Public (100%)	▪ New State Hockey Centre, Curtin University, $135m proposed, early business case planning and development, expected 2028. ▪ WAIS looking at option for Para accessible Recovery Centre / Facilities
Tasmanian Institute of Sport (TIS)	1985	149 scholarship and HP athletes	Silverdome; Tasmanian Technopark	Public (100%)	▪ Wilkinsons Point multi-sport facility budgeted $49.7m, estimated construction start 2023 ▪ Glenorchy MyState Bank Arena budgeted $67.6m, construction and delivery phase ▪ UTAS Stadium redevelopment project budgeted $65m planning and development phase, estimated construction start 2023
Queensland Academy of Sport (QAS)	1991	750 supported	Queensland Sport and Athletics Centre (QSAC)	Public (100%)	▪ DTIS 'Active Precincts' encompassing community and elite sports, and accommodation facilities – completed ▪ Olympic and Paralympic Games Infrastructure, Venues, Athletes villages, various locations, South East Queensland - $7.1bn (planning and development phase) ▪ University of Queensland Paralympic Centre of Excellence $132m budgeted, expected 2027-28
Northern Territory Sports Academy (NTSA)	1996	6 scholarship athletes	Marrara Sports Precinct	Public (100%)	▪ Motor Sports House project $6m, delivered 2019

[1] Secretariat desktop research from publicly available information for each sporting facility, drawn from various web sources, information correct as at 30 January 2024.

Appendix C – Map 1. Current AIS Campus facilities

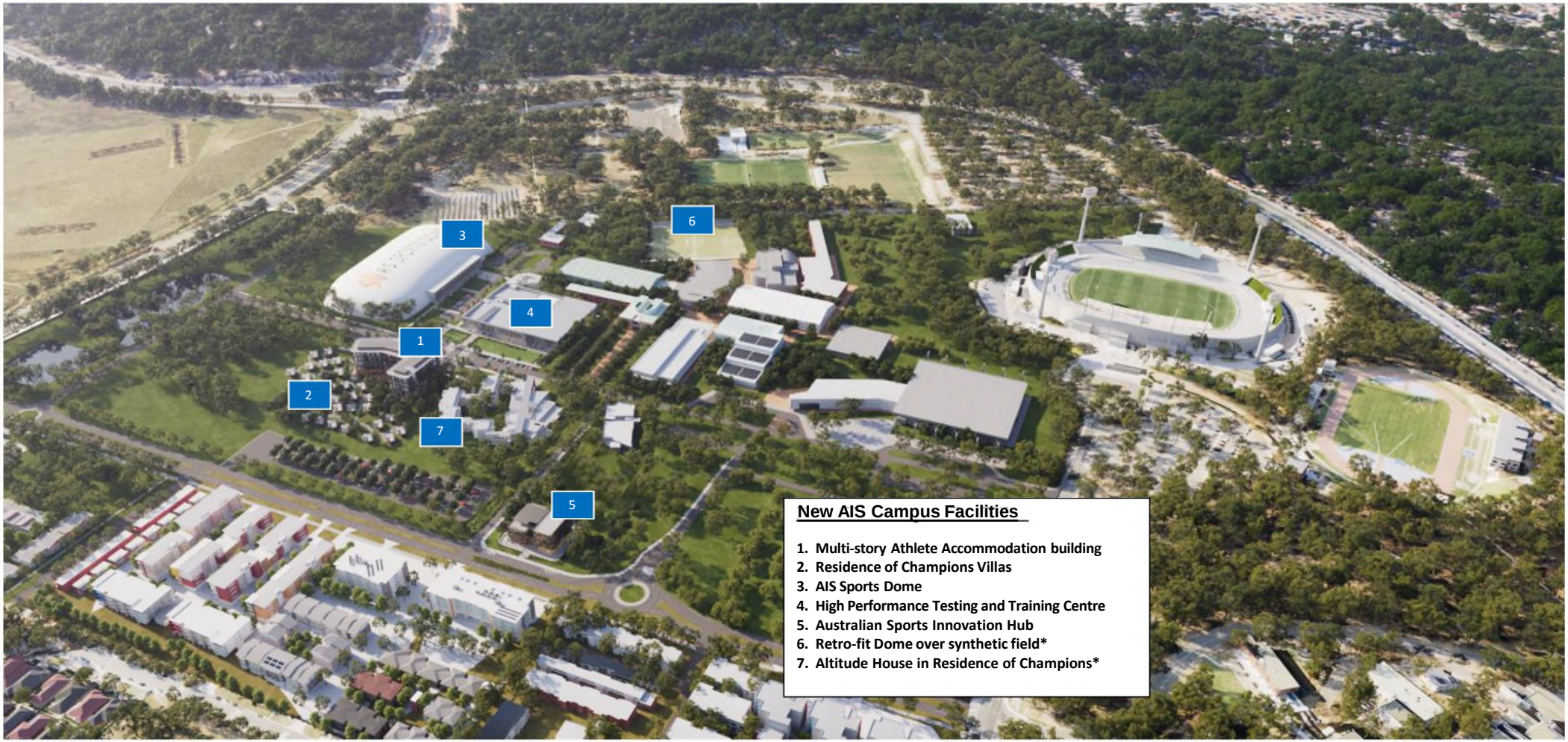
Major AIS Campus Facilities

1. **ASC Administration Building** (soon to be vacant)
2. **Residence of Champions**
3. **Athletes Village**
4. **AIS Arena**
5. **Volleyball courts / AIS Strength & Conditioning Gym**
6. **Basketball / Netball Centre**
7. **GIO Stadium Canberra**
8. **Childcare Centre**
9. **High Performance Centre***
10. **Gymnastics Centre**
11. **Australian Sports Foundation office**
12. **AIS Visitors Centres (Tours/shop/café)**
13. **AIS Recovery Centre**
14. **Aquatic Centres**
15. **Combat Centre / AIS Conference facilities**
16. **Synthetic field**
17. **Athletics Track**
18. **Throwing Fields**

* Includes Medical Centre, Engineering, Biometrics Lab, HP Testing & Training facilities. Currently under renovation to become main ASC staff building.

Source: Australian Sports Commission

Map 2. Proposed new AIS Campus facilities



Source: Australian Sports Commission

*Projects approved through ASC Capital Reserves budget – currently under development

APPENDIX D: Data on key AIS facilities

This table is based on a desktop review of prior Strategic and Business Case planning and Building Assessment reports undertaken for the Australian Sports Commission (ASC). It is indicative background only and any decisions on the future of Australian Institute of Sport assets needs to be guided by further ASC and stakeholder input.

Facility	Comments from previous planning	Condition	Rectification and maintenance required.	Cost
Athletics track and change block (Circa 1977). The Grandstand was constructed in 1991. **The Grandstand contains offices, meeting spaces, media boxes, kitchen and amenities. Mondo 400m running track, long and triple jump tracks, pole vault track, infield grassed with hammer and discus net and javelin run up, electronic scoreboard and 4 sandpits. Light towers at 4 corners of track.**	A 2018 report indicated that the Athletics Track and Field Centre will likely be at, or beyond, end of life in 2028. The 2023 Detailed Business Case (DBC) says it is required but not fit for purpose. It also indicated that due to the potential GIO Stadium redevelopment likely requiring additional land, the existing sports field located in the athletics track would need to be relocated. The grandstand is co-located with the track and the 2023 DBC states that it is a function that is not required, with the asset surplus to requirements.	Assessed as poor to fair overall condition. Much of the plant and equipment have reached end of its lifecycle. There are issues with the steel work and bird nesting in the grandstand. Numerous items of specialised sports equipment will require lifecycle replacement in the reviewed period of 10 years. Backlog repairs include repair and treatment of steel frameworks. Nevertheless, the Australian Women's Open 100m record was set at this track on 27 January 2024.	Short term: switchboards, with air conditioning, fire equipment and electric water storage heaters. Medium term: renew majority of mechanical units, electronic score boards, running track cage etc.	Estimated total $6.7 m ($2023) Whole of Life (WOL) expenditure for the 10-year schedule, with the majority required in the long term. Average annual operating expenditure (OPEX) is estimated at $71,478.

Facility	Comments from previous planning	Condition	Rectification and maintenance required.	Cost
		Assessed Remaining Life (ARL) of 14 years.		
Childcare Centre (Circa 1980). **Single level cottage building, with additions and refurbishments completed over time. Internal areas of childcare include kitchen, bathroom, sleep area and play areas. Landscaping with artificial grass, sand pits, paving and soft fall. Metal panel and palisade fencing. Demountable facility to the west with offices.**	Was nominated as a potential divestment in initial planning in 2018, while the 2023 DBC noted it as not fit for purpose. The ASC owns and operates the centre.	Fair overall condition. Original building was a caretakers cottage. Backlog repairs include investigation for combustible cladding. Works undertaken were: • Replacement of majority of external cladding 2017 • installation of distribution boards and smoke detection in 2022 • water heater in 2013 • grease trap in 2021. ARL of 17 years.	Short term: Rectification of rusted downpipe and rotting timber. Medium term: expenditure on renewal of mechanical air conditioning, artificial turf, external canvas awnings, guttering replacement and internal fit out where required. Paving, soft fall and fencing replacement in short to medium term.	Estimated total $0.7 m ($2023) WOL expenditure for 10-year plan, with the majority required in the medium to long term. Average annual OPEX estimated at $29,282.
Tennis Courts (Circa 1982). **Three synthetic surface playing courts with 3 small buildings to the north used as storage, change areas and offices. Courts enclosed by chain mesh fencing, 8 light poles.**	Not mentioned in 2018 planning and the 2023 DBC said it is a function that is not required, with the asset surplus to requirements. The Review understands it now has some high-performance uses.	Fair overall condition. Backlog repairs include further investigation of cladding. Some asbestos sheeting in walls and partitions. Timber rot also evident. ARL of 19 years.	Short term electrical distribution board, bench seats, tennis court resurfacing and refurbishment. Medium term: air conditioning, fencing and perimeter post require replacement.	Estimated total $0.9 m ($2023) WOL for 10-year plan, with the majority required in the short term. Average annual OPEX estimated at $5,265.

Facility	Comments from previous planning	Condition	Rectification and maintenance required.	Cost
There are 2 redundant clay courts.				
Throwing field (Circa 1982). **Three throwing cages and 3 discus circles, small storage shed and steel framed shelter area.**	Not mentioned in 2018 planning and was noted as needed but not fit for purpose in the 2023 DBC.	No backlog repairs identified. Some roof areas in poor condition. Storage shed internal in poor condition. ARL of 19 years.	Short term: throwing nets, discus circles and switchboard replacement. Medium term: renewal of storage shed.	Estimated total $1.1 m ($2023) WOL for 10-year plan. Average annual OPEX estimated at $947.
Swim Centre (Circa 1984). **Contains 50 m eight lane Olympic Pool and 25 m warm up pool, change rooms, offices, meeting rooms and a gym.**	Not mentioned in 2018 planning. The 2023 DBC said it is a function that is not required, with the asset surplus to requirements. ASC has noted the 50 m pool has high-performance usage, including water polo.	Poor to fair condition. Some upgrades have occurred such as change rooms in 2012. Projects to occur soon include: • pool filtration and switchboard upgrade. Several backlog issues including leeching, water penetration of underside pool slab, failed window units and metal corrosion. Deterioration of the external slab area, waterproofing and construction joints is a potential WHS issue.	Short term: replacement of gas fired boilers and pumps. Water filters replacement. Medium term: renew pool equipment including pumps. Fire equipment, air conditioning, fans, skylight roof and a major façade project to replace remaining asbestos cladding.	Estimated total $5 m ($2023) WOL for 10-year plan, with close to half of that expenditure required in the next 5 years. Annual average OPEX for 10 years of $186,370.

Facility	Comments from previous planning	Condition	Rectification and maintenance required.	Cost
		These need to be addressed imminently. ARL of 21 years.		
Multi Sports Hall (Circa 1983). **Two storey building containing volleyball and beach volleyball courts, strength and conditioning gym, amenities, offices, storage and two bridge links to connect to other AIS buildings.**	Not discussed in 2018 planning and considered fit for purpose in the 2023 DBC.	Overall fair condition, mechanical services very good. Major upgrade of mechanical systems in 2020. Some have not been upgraded. Internal areas in good condition. Some backlog repairs were identified such as replacement of screw fittings, pressure cleaning of rooves. ARL of 21 years.	Short term: Some replacement of mechanical items required. Replacement of skylights and some roofing required. Medium term: Upgrade of internal areas required. Major façade replacement project to remove asbestos cladding. No major capital works to report.	Estimated total $2.4 m ($2022) WOL required in next 10 years. Average forecast annual OPEX is $96,513.
Gymnastics Hall (Circa 1983). **Gymnasium Hall with attached 2 storey offices and amenities.**	2018 planning said to decommission it and the 2023 DBC said it is a function that is not required, with the asset surplus to requirements. However, ASC has demonstrated that it is currently used for high-performance gymnastics and a facility is required for gymnastics.	Poor to fair condition overall. Functional and operational however it is dated with no significant upgrades except an amenity refurbishment and fire equipment upgrade in 2014. External envelope and wall and ceilings contain asbestos. Roof requires replacement and has a	No work in short term. Medium term: renewal of roof, replacement of asbestos cladding and a major mechanical and ventilation upgrade. Maintenance is planned for within the next 7 years including repainting of internal and external services.	Estimated total $3.3 m ($2022) WOL required in next 10 years. Anticipated expenditure of $2.1m in the medium term. The average annual forecast OPEX spend over a 10-year period is $48,802.

Facility	Comments from previous planning	Condition	Rectification and maintenance required.	Cost
		limited ability to carry load. ARL of 8 years.		
Indoor Courts Facility (Circa 1984). **Two storey netball and basketball centre with 5 courts, offices, storage and amenities.**	Not in 2018 planning and considered fit for purpose in the 2023 DBC.	Good overall condition. Has had some recent major upgrades and was also extended in 2017. ARL of 18 years.	No short-term capital expenditure required. Medium term: Roof has problematic leaks that should be replaced. Renewal of air conditioning and some fire equipment replacement.	Estimated total $2.7 m ($2023) WOL for 10-year plan. The Average annual OPEX predicted is $92,507.
Sports Training Facility (STF) and Conference Centre (Circa 1984). **Contains 57 spaces including a theatrette, meeting rooms, combat sports hall and indoor synthetic pitch. Has a link tunnel to the basketball court.**	STF and Conference Centre was identified in the 2018 planning for decommissioning, however 2023 DBC said it was needed but not in a fit state.	Cladding panels cracked and damaged. Internal areas are in fair condition. Amenities are dated and should be fully refurbished. Ongoing replacement of floor coverings is also required. Asbestos in internal joints. Many mechanical items at end of life. Boiler has been out of service since 2022.	Medium term: Full replacement of cladding recommended. Some of the Hydraulic elements will require replacement. The boiler will be replaced soon.	Estimated total $5.6 m ($2023) WOL for 10-year plan. Average annual OPEX estimated at $143,608.
Football and Multipurpose Field.	Football Field is not mentioned in the 2018 planning. The 2023 DBC	Fair overall condition. Change rooms were substantially upgraded in	Short term: replace stairs.	Estimated total $2 m ($2023) WOL for 10-year plan. Average

Facility	Comments from previous planning	Condition	Rectification and maintenance required.	Cost
Football Field (Circa 1982). Two grassed surfaces enclosed by mesh fencing and 6 pole lights on boundary. The multi field (Circa 1991) is also divided into 2 grassed surfaces enclosed by mesh fencing and has an amenities block.	said it is a function that is not required, with the asset surplus to requirements. The 2018 planning said to divest the multi field and the 2023 DBC said it was needed and in a suitable state.	2016. No backlog repairs identified. ARL of 28 years.	Medium term: renewal of scoreboard to football field, water heater, smoke detectors and heaters in change rooms required.	annual OPEX estimated at $19,333.
ASC Residences (Circa 1983). **Four storey building incorporating 252 bedrooms in 21 blocks of 12 rooms. Each block has a common area, 4 bathrooms and a self-contained room. There are 7 main buildings in the residences containing accommodation, office areas, security hub, plant and equipment, communal TV and games room and kitchen.**	2018 planning said to decommission it. The 2023 DBC said it was needed but that it is not in a fit state with a new facility proposed.	Poor to fair condition. Various items of plant and equipment are at end of life, including the switchboards and hose reels. Internal fit-out is dated and requires refurbishment. Cracked drains, trees over roof and replacement of bathroom fans raised as issues to be addressed. Some asbestos was identified in the plant room. Not para friendly. ARL of 19 years.	Short term: replacement of distribution boards, internal and external doors, fabrics and fittings. Repair to roof sheet and fixtures and brickwork sealant. Medium term: renewal of air conditioning and electrical distribution boards.	Estimated total $9.1 m ($2023) WOL for 10-year plan, with the majority of expenditure required in the medium to long term. Average annual OPEX estimated at $284,217.
Corporate services (Circa 1985).	2018 planning said to decommission it. The 2023	Fair overall condition, various items of plant and equipment are at	Short term: Eco-wise switchboard requires immediate replacement.	Estimated total $2.8 m ($2023) WOL for 10-year plan. Average

Facility	Comments from previous planning	Condition	Rectification and maintenance required.	Cost
Two storey office building with National Sports Information library.	DBC said it was needed but that it is not in a fit state.	end of life, namely the mechanical air handling and chiller plant. Internal areas in good condition. ARL of 19 years.	Medium term: the majority of mechanical systems require renewal.	annual OPEX estimated at $85,743.
Spine Building (Circa 1984). **Two storey office building with open plan offices, meeting rooms and store rooms. Was originally constructed as accessible accommodation.**	2018 planning said to decommission it. The 2023 DBC said it was needed but that it is not in a fit state.	Fair overall condition with various items of plant and equipment at the end of life. Some roof repairs required. Internal fair to good condition. Back log repairs requiring replacement of corroded items. ARL of 20 years.	Short term: replacement of identified items such as plant and fire equipment. Medium term: the majority of mechanical and electrical systems to be renewed.	Estimated total $1.3 m ($2023) WOL for 10-year plan, with the majority required in the long term. Average annual OPEX estimated at $47,210.
SSSM building. (Circa 1985). **Site comprises a three-storey building accommodating sports departments including biomechanics, physical therapies, sports medicine, psychology, movement and data science. Plant room on level 3. Bridge link connecting to the AIS**	The 2023 DBC said this was needed but not fit for purpose – a new High-Performance Testing and Training Centre was proposed.	Building in fair condition with the exception of the roof which has waterproofing and end of life items and in poor overall condition. External cladding approaching end of life. Window replacement is required in the short term. Some repainting required in the next 4 years. Internal areas	Short term: Some roof area requires priority replacement. With the rest of the roof areas requiring short term backlog repair works. Façade upgrade is required in short to medium term.	Estimated total $6.6 m ($2022) WOL required in next 10 years. Anticipated expenditure of $2.2 m in the medium term and $3.4 m in the long term. The average annual forecast maintenance / OPEX spend is $128,984.

Facility	Comments from previous planning	Condition	Rectification and maintenance required.	Cost
Hub and Indoor Courts Facility.		generally in good condition. ARL of 23 years.		
Junior residences (Circa 1985). **Two storey building with athlete accommodation and office accommodation. Plant and equipment rooms with a recreation room.**	Not in the 2018 planning, the 2023 DBC said it was needed but is not fit for purpose. ASC advised that it is currently occupied by the ACT Academy of Sport (ACTAS) offices and is occasionally used as overflow athlete accommodation (residences).	Fair overall condition. Various items of plant and equipment are approaching end of life. Internal in poor condition with fit out dated and requiring refurbishment. Back log items include some roof refurbishment. ARL of 22 years.	Short term: Asbestos inspection is required and the switchboard requires replacement. Medium- and long-term renewal of air conditioning and fit out refurbishment. All fire equipment requires replacement.	Estimated total $1.2 m ($2023) WOL for 10-year plan, with the majority of expenditure required in the medium- to long-term. Average annual OPEX estimated at $53,958.
Logistics complex (Circa 1989). **Two single storey buildings accommodating office, amenities, storage and workshop areas. Ancillary buildings for car storage and a redundant demountable building.**	Not in 2018 planning, found to be fit for purpose in the 2023 DBC.	Fair overall condition. Internal area in fair condition. Some renewal of electrical equipment required. Backlog repairs to guttering in carport and an asbestos inspection is required. ARL of 26 years.	Short term: Renew/upgrade demountable that is currently not in use. Medium term: Renew air conditioning, replace fire equipment and internal fit out.	Estimated total $0.7 m ($2023) WOL for 10-year plan, with the majority required in the long term. Average annual OPEX estimated at $29,349.
Outdoor Synthetic field (Circa 1991). **One synthetic field, enclosed by chain mesh**	Not in 2018 planning, found to be fit for purpose in the 2023 DBC.	Fair overall condition. No backlog repairs or short-term CAPEX identified. Field refurbished circa 2013-14.	Medium term: Renewal of grass surface, line markings and scoreboard.	Estimated total $1.7 m ($2023) WOL for 10-year plan, with the majority of expenditure required in the medium term. Average

Facility	Comments from previous planning	Condition	Rectification and maintenance required.	Cost
fencing. Pole mounted light fittings, scoreboard, soccer goal and dugout.				annual OPEX is estimated at $36,643.
Sports Visitors Centre (Circa 1996). **Two storey building with a café, retail clothing outlet, full commercial kitchen, bar, meeting rooms, amenities, games room and theatrette. Adjoins AIS Arena.**	2018 planning said to divest the centre. The 2023 DBC said it was needed but that it is not in a fit state.	Fair overall condition with recent mechanical and electrical upgrades. Internal areas in fair condition. Some external cladding requires repair along with some roof defects. ARL of 34 years.	Medium term: renew internal fit out and replacement of water heaters.	Estimated total $3.8 m ($2022) WOL for 10-year plan, with the majority required in the long term. Average annual OPEX estimated at $131 094.
Horticulture services (Circa 1998). **Single storey warehouse building with storage, offices amenities and workshop areas.**	2018 planning did not reach a decision, the 2023 DBC said it was needed and is in a fit state.	Fair overall condition. Internal areas in fair condition. Backlog repairs include an asbestos inspection. ARL of 34 years.	Short term: minor expenditure to renew a security grill. Medium term: air conditioning, water storage, fire equipment and electrical distribution board upgrade required.	Estimated total $0.4 m ($2023) WOL expenditure for 10-year plan, with the majority required in the long term. Average annual OPEX is estimated at $12,334.
Australian Sports Foundation (Circa 2003). **Single storey accommodating offices and warehouses.**	Not mentioned in 2018 planning. The 2023 DBC plans to divest it.	Fair to good overall condition. Backlog repairs to roof areas required as there is water penetration to office areas resulting in damage to ceiling tiles. ARL of 40 years.	Short term: expenditure required for replacement of the hot water unit.	Estimated total $0.3 m ($2023) WOL expenditure for 10-year plan, with the majority required in the medium to long term. Average annual OPEX is estimated at $22,552.

Facility	Comments from previous planning	Condition	Rectification and maintenance required.	Cost
Merchandising Warehouse (Circa 2004). **Single storey building accommodating a small office and amenities with warehouse storage.**	Not in 2018 planning, found to be fit for purpose in the 2023 DBC.	Fair overall condition with no backlog repairs. Internal areas are generally in good condition. ARL of 41 years.	Medium term: need to renew air conditioning, distribution board, water heater and dated fit out.	Estimated total $0.1 m ($2023) WOL expenditure for 10-year plan, with the majority required in the medium to long term. Average annual OPEX is estimated at $7,135.
ASC Administration (Circa 2006). **Two storey commercial office building, amenities, stairs and a lift.**	2018 planning said to divest the building. The 2023 DBC said it was needed but that it is not in a fit state.	Fair overall condition. Backlog repairs to hot water pump. Internal areas in good condition. ARL of 43 years.	Medium term: upgrade of lift, lighting and some fabric and floor coverings. Main mechanical systems likely to require replacement.	Estimated total $2.5 m ($2023) WOL expenditure for 10-year plan, with the majority required in the medium to long term. Average annual OPEX is estimated at $89,093.
Swim centre and recovery centre (Circa 2006). **Contains a 3 m deep 50 m pool with performance monitoring equipment, change room, recovery pool and float tank in adjacent recovery centre, change room and stretching facilities, office and amenities.**	The 2023 DBC says the testing and training pool is required but is not in a fit state. The recovery centre is not mentioned in 2018 planning and is considered fit for purpose in the 2023 DBC.	Technically one building. Fair overall condition. Have been some upgrades and alterations including refurbished change rooms, pipe replacements and replacement air handling units. Backlog repairs to leeching and water penetration to pool slab. Corrosion of exposed external area areas of steel frame and awnings. ARL of 43 years.	Short term: no capital expenditure anticipated. Short term repair of pool slab allowed for but may require more extensive work. Floor covering will require ongoing replacement. Medium term: renewal of pool equipment and air conditioning.	Estimated total $4.9 m ($2023) WOL expenditure for 10-year plan, with the majority required in the long term. Average annual OPEX estimated at $264,437.

Facility	Comments from previous planning	Condition	Rectification and maintenance required.	Cost
Central Chiller Station (Circa 2007). **It serves chilled water into the Sports Training Facility, Indoor Sports Facility and Gymnastics Hall. Small plant room with 3 air cooled chillers and associated water pumps.**	Not mentioned in 2018 planning. Deemed necessary but not fit for purpose in the 2023 DBC.	Fair overall condition. Backlog repairs to plinth in switchboard room. Water pooling in external areas also reported. Chiller 1 was replaced in 2022. ARL of 44 years.	Medium term: renewal of 2 chillers and associated pumps required.	Estimated total $2.2 m ($2023) WOL expenditure for 10-year plan, with the majority required in the medium to long term. Average annual OPEX estimated at $19,632.
AIS Hub (Circa 2006). **Three storey building accommodating administration offices, variety of sports monitoring and test areas. Adjoins the SSSM building.**	The 2023 DBC said this was needed but is not fit for purpose – a new High-Performance Testing and Training Centre was proposed.	Fair to good condition. Cracking of concrete floor slab. Cladding potentially combustible. Backlog repairs of water damage through leaking roof and failing sealants and gaskets. ARL of 60 years.	Medium term: Running track full replacement required. Full upgrade of lifts will be required. Roof in good condition but skylights will need to be replaced in the long term.	Estimated total $1.9 m ($2022) WOL for 10-year plan. Majority required in medium term, approximately $0.9m. The average annual forecast OPEX spend is $90,862.
Residence of Champions (Circa 2007). **Four freestanding accommodation blocks of 3 storeys connected by walkways. Two accommodation blocks and a main block with dining hall and kitchen, administration offices,**	This is in a more modern and accessible state than the Athletes Village. The 2023 DBC says it is required but not fit for purpose.	Fair overall condition. Several cladding elements were remediated in 2019. Further investigation of cladding required. Immediate backlog work includes corroded sprinkler pipes, awnings, wall cracking, guttering and overhang upgrades.	Medium term: renewal of Gas Hot water units, upgrades to the lift and internal finishes and the smoke detection. Roof lights need replacement. Some mechanical items require replacement in the medium term.	Estimated total $7 m ($2023) WOL expenditure for 10-year plan, with the majority required in the medium to long term. Average annual OPEX is estimated at $308,675.

Facility	Comments from previous planning	Condition	Rectification and maintenance required.	Cost
tutorial rooms and main plant areas.		Dining hall and kitchen underwent major refurbishment in 2017. The air cool chiller was installed in 2022. ARL of 44 years.	External furniture and fencing need replacement in the long term. Vast majority of fire equipment will require replacement in the long term.	
Rowing Complex (Circa 1991). **Located in Yarralumla. Two storey boat storage 1986, gym 1989, extension to boat shed 1991, two storey wing 1993, two storey office wing 2010 and new change rooms 2021.**		Fair to good condition overall. Backlog repairs mainly includes replacement of corroded elements. Upgrade works at tender currently includes roof replacement of boat shed, gym and athlete kitchen, replacing carpet and air conditioning, replacing windows and various cooling items. Internal areas in good condition. ARL of 29 years.	Medium to long term expenditure required on air conditioning system. Replacement of older emergency lighting.	Estimated total $1.9 m ($2022) WOL for 10-year plan, with the majority of expenditure expected in the long term. OPEX is expected to be annual average $30,009 across this period.
External areas, paths and carparks	N/A	Renewal in selected areas required. Fair overall condition.		Estimated total $15.2 m ($2023) WOL expenditure required across 10 Years. With the majority of the expenditure required in the long term. The annual average forecast OPEX is $481,973.

Facility	Comments from previous planning	Condition	Rectification and maintenance required.	Cost
AIS Arena (Circa 1979-81).	The 2023 DBC said it is a function that is not required, with the asset surplus to requirements.		The 2022-23 Commonwealth Budget included $15 million to reopen and improve the AIS Arena. The ASC and the ACT Government are liaising on the re-opening of the Arena in 2024.	

NB: The GIO Stadium Canberra is not included in this appendix.

APPENDIX E: International High-Performance Facility Comparator[1]

COUNTRY	AUSTRALIA	JAPAN	NETHERLANDS	FRANCE	USA	UK
Location (website link)	AIS, Canberra	Ajinomoto, Tokyo	Papendal, Arnhem	INSEP, Paris	CSOPTC, Colorado Springs	Loughborough University, London
Date Established	1981	2009	1971	1945	1976	2015
Campus size (Hectares)	65 (Land)	10.8 (Facilities)	123 (Land)2	28 (Land)	14.1 (Land)	226 (Queen Elizabeth Olympic Park)
Accommodation	AIS Accommodation 400 capacity large dining hall and theatrette	Athlete's Village 448 capacity Dining room, large public bath, theatre and study/meeting rooms	Hotel Papendal 151 room (4 star rating) 30 meeting rooms including 2 large event spaces @Papendal (youth sports hotel for athletes aged 15-18). 100 individual rooms. Restaurant/dining facility	INSEP accommodation 70 rooms (single/double configurations) for short stay visitors 318 residential/boarders Restaurant/dining, cocktail/large event/conferencing facilities Para-enabled/accessible	CSOPTC accommodation 236 dorm rooms (mostly double occupancy) Dining hall Meeting/Theatre spaces Para-enabled/accessible	Elite Athlete Centre & Hotel 44 rooms (twin occupancy) including 8 Disability Discrimination Act (DDA) compliant rooms 8 are para rooms Restaurant/cafe Flexible function/seminar/meeting spaces/ Athletes' lounge Para-enabled/accessible
HP model and funding	Central core with decentralised model of centres of excellence through the NIN. Reliance on Federal and State Government funding.	Japanese National Government owned and funded. Joint funding by Lottery Department and Corporate sponsorship	Dutch government funding in partnership with the Dutch Olympic Committee and Dutch Sports Federation (NOC*NSF)	French National Government owned and funded. Additional funding from Corporate donors and partners. Annual budget: 38M Euro.	Government funded with large corporate sponsorship arrangements.	UK Sport government funding and National Lottery. 8 HP Training Centres spread across the UK.
Strength and Conditioning Gym	Yes	Yes	Yes	Yes	Yes	Yes
Biomechanics Laboratory	Yes	Yes	Yes	Yes	Yes	Yes
Private Changing and Consulting Areas	Yes	Yes	Yes	Yes	Yes	Yes
Hydrotherapy	Yes	Yes	Yes	Yes	Yes	Yes
Physiology Laboratory	Yes	Yes	Yes	Yes	Yes	Yes
Physiotherapy	Yes	Yes	Yes	Yes	Yes	Yes
Biochemistry Laboratory	Yes	Yes	No data	Yes	No	Yes
Specialist Clinics (musculoskeletal, orthopaedics, concussion, endocrinology, imaging, elite breathlessness, genetics)	**Partially** (musculoskeletal, concussion, elite breathlessness, genetics)	Yes	Yes	Yes	Yes	Yes
Environmental Chamber	No (planned)	Yes	Yes	No data	Yes	Yes
Altitude Apartments	No (planned)	Yes	Yes	No data	Location at altitude	Yes
3D Performance Capture Hall	No	Yes	No data	No data	No	Yes
Cognition Suite	No	Yes	No data	No data	No	Yes
Cryotherapy (4)	No	Yes	No data	No data	No	Yes
Sleep Monitoring	No	Yes	No data	No data	No	Yes
Swimming Flume	No	Yes	No data	No data	Yes	No
Wind Tunnel	No	Yes	Yes (Delft University of Technology)	No data	No	No

[1] Secretariat desktop research from publicly available information for each sporting facility, drawn from various web sources, information correct as at 30 January 2024.

[2] Wikipedia, *National Sports Centre Papendal* [website], 2023, <https://en.wikipedia.org/wiki/National_Sports_Centre_Papendal>, information correct as at 30 January 2024.

Australian Institute of Sport Revitalisation project, Canberra, Australian Capital Territory
Submission 1

APPENDIX F: Interviews completed

Interviews were completed with representatives from the following Australian and State Government agencies and organisations:

ACT Government
Olympic Winter Institute of Australia (OWIA)
Australian Olympic Committee (AOC)
Athletics Australia (NSO)
Auscycling (NSO)
Australian Sports Commission (ASC)
National Capital Authority (NCA)
Australian Institute of Sport (AIS)
Australian Sports Commission (ASC)
Basketball Australia (NSO)
Chief Executive Women
Commonwealth Games Australia
Department of Finance
Department of Foreign Affairs and Trade
Department of Health and Aged Care (DoHAC)
Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA)
Department of the Prime Minister and Cabinet
Department of the Treasury
Gymnastics Australia (NSO)
IGLU (student accommodation provider)
International Olympic Committee
Minerva (sporting network)
Northern Territory Sports Academy (NTSA)
NSW Government
NSW Institute of Sport (NSWIS)
Ontoit (infrastructure advisory firm)
Paralympics Australia (PA)
Parliament of Australia
Populous (architecture firm)
QLD Government
Queensland Academy of Sport (QAS)
Rowing Australia (NSO)
Skate Australia (NSO)
South Australia Sports Institute (SASI)
Sport Integrity Australia (SIA)
Tanarra (private equity/venture capital firm)
Tasmanian Institute of Sport (TIS)
Tennis Australia (NSO)
University of Canberra (UC)
University of Queensland (UQ)
Victorian Institute of Sport (VIS)
Volleyball Australia (NSO)
Western Australian Institute of Sport (WAIS)

Notable persons:

Ian Chesterman AM, President, Australian Olympic Committee (AOC)

Ben Houston, President, Commonwealth Games Australia

John Coates AC, IOC Vice-President (2013-2017 and 2020 -), President (2011-) of the International Council of Arbitration for Sport (ICAS), President of the Court of Arbitration for Sport (CAS) (2011-), former President Australian National Olympic Committee (1990-2022), former Commissioner, Australian Sports Commission 1987-1998, former Rowing Coxwain and Coach

Catherine Clark, CEO, Paralympics Australia

Dr Andrew Liveris AO, President, Brisbane 2032 Games Organising Committee (BOCOG)

John Wylie AC, management consultant and former investment banking executive. Former Chair, Australian Sports Commission (2012-2020)

Jim Ferguson, former CEO Australian Sports Commission (1990-2000)

Kieren Perkins OAM, CEO Australian Sports Commission

Josephine Sukkar AM, Chair, Australian Sports Commission and businesswoman

APPENDIX G: Written submissions made to the Review

1	Ronald Harvey CVO AM
2	Robert Turner
3/3.1	Greg Blood
4	Invictus Australia
5	Adj Professor Peter Fricker OAM MBBS FACSEP
6	James Ferguson
7	Alicia Payne MP, Andrew Leigh MP and David Smith MP (Joint submission)
8	Anonymous (private submission)
9	Rowing ACT
10	Anonymous (private submission)
11	Michael Crooks - Baseball Australia
12	Skate Australia submission to the AIS Review
13	University of Canberra
14	Canberra Region Tourism Leaders Forum
15/15.1	Rowing Australia
16	Athletics Australia
17	ACT Government Submission to the Independent Review of AIS Infrastructure
18	Sport Climbing Australia
19	Gymnastics Australia
20	Martin Roberts
21	Capital Athletics
22	Australian Professional Leagues
23	Volleyball Australia
24	Anonymous (private submission)
25	AusCycling
26	ACT & Southern NSW Rugby Union Limited

APPENDIX H: Reviewer Biography and Review Secretariat

About the Reviewers

Erin Flaherty: is Chair of the National Intermodal Corporation and sits on the Board of Venues NSW. She has been involved in the development of the NSW Stadia Strategy and has over 30 years' experience in the private and Government sectors, especially in major infrastructure projects.

Robyn Smith OAM: is the CEO of Sport Inclusion Australia, on the board of the 2032 Brisbane Olympic and Paralympic Organising Committee and an International Paralympic Committee Governing Board Member at large. She is an advocate for the positive impacts of sport, especially for people who are underrepresented because of disability.

Secretariat support and acknowledgements

The AIS Infrastructure Review was supported logistically by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts, with support from the Office for Sport.

Secretariat

The Reviewers would like to thank the Olympic, Paralympic and Sports Infrastructure Branch for the surge capacity provided in the finalisation of this report.

The Reviewers would also like to thank the Australian Sports Commission, and the generosity of all stakeholders who contributed their time and ideas to this Review through meetings or via written submissions.