Best practice design principles guide

SPORT HQ

Sport and recreation facilities play a vital role in fostering community connections, promoting healthy lifestyles and encouraging participation in physical activity. Thoughtful and inclusive design can transform these spaces into welcoming environments that inspire active engagement, cater to diverse needs and create a sense of belonging for all users.

This guide highlights key design consideration and universal principles to help your organisation plan facilities that are functional, adaptable and inclusive. By applying these principles, your organisation can support a broader spectrum of participants, strengthen community ties and future-proof infrastructure for evolving needs.

The cost of good design

It is a good idea to engage a suitably qualified professional to assist with designing projects to ensure the best practice design principles are considered for your facility development.

While the upfront cost of hiring a design specialist or implementing universal design principles may seem daunting, investing in smart, inclusive design from the outset can significantly reduce future expenses by preventing costly retrofits and lowering operational costs.

> Adopting best practice design principles helps create a facility that draws more users and visitors, leading to stronger financial outcomes.

Key design principles and considerations

When planning new infrastructure, it's important to consider key elements that promote inclusivity, functionality and adaptability. Applying best practices design principles and adhering to relevant building legislation and codes, Council guidelines and sporting specifications can ensure sport and recreation facilities remain safe, functional and welcoming for years to come.

In addition, good design considers the needs of all users, regardless of ability, age, background or gender, to ensure your facilities serve the whole community effectively.

Incorporating the following design principles and considerations can maximise and support participation at your facilities.

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Key design principles and considerations

Universal design

The principles of universal design should be applied to community sport and recreation facilities to accommodate all users, not just the majority users. The universal design approach makes spaces more accessible, inclusive and functional, increasing their usage and financial viability. More information about universal design is at the end of this guide.

Fit for purpose

Your facility's design should reflect its intended use and accommodate the variety of activities the organisation will host. Whether catering for multiple sports, different competition levels or diverse user groups, flexibility is essential. Aim for adaptable features so your organisation and community can adapt as needs evolve. Remember to factor in your design environmental conditions, such as prevailing winds, sun orientation and seasonal weather.

Multi and shared use

Design your facility to serve multiple purposes and user groups, allowing for shared use by different sports and or activities.

> **Unisex change rooms** and amenities that are inclusive of all users, including people with disability.
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> **Operable walls** or movable partitions to transition between larger communal areas and multiple smaller rooms as your organisation's schedule demands.
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> **Multi-use changerooms** with partitioned showers and toilets, along with space for changing, allow for inclusivity.

This approach maximises the facility's functionality and ensures it remains relevant to your organisation and the community's changing needs.

Use/activity compatibility

Seek out opportunities to share your facility with sports and organisations that have similar needs. For instance, a cricket oval can accommodate AFL, or an indoor court can host basketball one day and netball the next. Developing compatible partnerships can reduce your operating costs, increase facility utilisation and create stronger connections across your local community.

Accessibility

Total accessibility means people with disability can access every area of your facility open to others.

Use the Built environment checklist to assess and improve your facility accessibility and consult with your local Council's Disability Access Officer for advice on your design or facility.

Public safety

Designing for public safety involves applying Crime Prevention through Environmental Design (CPTED) principles to shape your organisation's physical spaces to deter crime and keep everyone safe. By considering how people move, gather and see into an area, you can reduce hidden spots and make your grounds more welcoming. Here are some ideas to increase safety through CPTED while fostering a welcoming environment:

> **Providing high-visibility seating**, clear sightlines to the field and well-lit walkways to remove secluded areas
>
> **Creating appealing gathering places** with lighting, benches and landscaping to promote natural surveillance and deter antisocial behaviours
>
> **Designing clear entry points** to clubhouses, well-lit lobbies and visible surveillance system

Health and safety

Security and safety of users should be paramount. Community sport and active recreation facilities and their surrounds should be designed, built and maintained in accordance with the relevant occupational health and safety standards. Some considerations include:

- Sufficient emergency exits
- Suitable surfaces (non-slip where appropriate)
- Appropriate ventilation
- Considerations for cleaning (floor fall, drainage and internal hose connections)
- Clear, concise facility signage

Stakeholder co-design

Inclusive design begins with inclusive planning. Listen to a range of facility users to learn more about their needs and what they would like to see at the facility. This is more than just getting feedback. Co-design consideration is about engaging a diverse group of stakeholders from your community at the very beginning, such as people with disability, people from different cultural and gender backgrounds, parents and older people.

Environmental sustainability

In your design consider how you can optimise resources for long-term and minimise impact on the environment. Energy efficient strategies, water conservation and effective waste management initiatives can help to make an eco-friendlier facility.

> Smart switching options, changing to LED lighting, water harvesting and irrigation are all examples of how your organisation can save both money and the environment.

What is universal design?

Universal design is a philosophy that ensures buildings, environments, products and experiences are accessible to as many people as possible, regardless of their age, level of ability, background, or any other differentiating factors that make our communities diverse.
It helps eliminate barriers to participation and can be applied everywhere including website layouts, equipment and facilities to ensure nobody is left out.

> Good facility design does more than provide functional and inclusive spaces, it also saves money by reducing maintenance costs, maximising usage and increasing revenue through greater community participation.

What are the seven universal design principles?

The principles of universal design were conceived and developed by The Center for Universal Design at North Carolina State University. They offer guidance to the design process to better integrate features that meet the needs of as many users as possible.

While you read through the principles, picture the different people and activities your facility can serve; think age, mobility, ability and cultures, and consider how your facilities and activities meet their needs.

Principles	Design goal	Considerations	Examples
1. Equitable use	Useful and marketable to people with diverse abilities.	• Provide the same means of use for all users: identical whenever possible; equivalent when not • Avoid segregating or stigmatising any users • Provisions for privacy, security and safety should be equally available to all users • Make the design appealing to all users	Ramps, wider doorways and easy access doors can be used by all no matter their ability.
2. Flexibility in use	Accommodates a wide range of individual preferences and abilities.	• Provide choice in methods of use • Accommodate right- or left-handed access and use • Facilitate the user's accuracy and precision • Provide adaptability to the user's pace	Adjustable or multiple height facilities easily reachable for users of all heights.
3. Simple and intuitive use	Easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.	• Eliminate unnecessary complexity • Be consistent with user expectations and intuition • Accommodate a wide range of literacy and language skills • Arrange information consistent with its importance • Provide effective prompting and feedback during and after task completion	Easily identified pathways throughout the facility so it is easy to know where to go/move around.

Principles	Design goal	Considerations	Examples
4. Perceptible information	Communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.	• Use different modes (pictorial, verbal, tactile) for presentation of essential information • Provide adequate contrast between essential information and its surroundings • Maximise "legibility" of essential information • Differentiate elements in ways that can be described (i.e. make it easy to give instructions or directions) • Provide compatibility with a variety of techniques or devices used by people with sensory limitations	Signage for emergency exits are clearly identifiable with multiple methods of communication such as text, graphic, braille.
5. Tolerance for error	Minimises hazards and the adverse consequences of accidental or unintended actions.	• Arrange elements to minimise hazards and errors: most used elements, most accessible, hazardous elements eliminated, isolated or shielded • Provide warnings of hazards and errors • Provide fail safe features • Discourage unconscious action in tasks that require vigilance	Non-slips surfaces and sufficient drainage in areas surrounding showers, sinks, toilets and water fountains.
6. Low physical effort	Can be used efficiently and comfortably and with a minimum of fatigue.	• Allow users to maintain a neutral body position • Use reasonable operating forces • Minimise repetitive actions • Minimise sustained physical effort	Low steps/low gradient ramps where requires, or lever handles on doors and taps.
7. Size and space for approach and use	Appropriate size and space are provided for approach, reach, manipulation and use regardless of the user's body size, posture or mobility.	• Provide a clear line of sight to important elements for any seated or standing user • Make reach to all components comfortable for sitting and standing • Accommodate variations in hand and grip size • Provide adequate space for the use of assistive devices or personal assistance	Wide entrances for wheelchairs, easily reachable sinks, benchtops or water fountain to cater for shorter people or children.