Best Practice Design Principles Fact Sheet

Design Principles

The following design principles are important to be considered when developing new infrastructure.

During the design process, emphasis should be placed on understanding the needs of all users, with a focus on gender, disability access and cultural needs to ensure facilities and infrastructure meet the needs of the whole community.

Following effective design principles, relevant building codes and council guidelines will help to ensure facilities will be built to adapt to changes over time, supporting safety and functionality, and encouraging inclusive use and active participation in sport and recreation.

In addition to building legislation, codes and guidelines, the following key principles will promote a facility with much greater potential and capacity for the club and the broader community.

The Department of Tourism, Innovation and Sport (DTIS) encourages applicants to consult a suitably qualified professional to assist with designing projects that accommodates these principles.

Universal Design

The principles of Universal Design should be applied to community sport and recreation facilities to accommodate all users, not only the majority users. Universal Design ensures the facility is suitably designed to allow greater use and ease of access for all participants and visitors.

Refer to more information on Universal Design Principles further in this document.

Fit for purpose

Facilities should be built with their specific purpose in mind, if this includes multiple sports or activities and a range of user groups, this should be reflected in the design, whilst promoting a flexible and multiuse approach and catering for the changing needs of the club and the community. Environmental factors should also be considered such as wind direction, tracking of the sun, and adverse or seasonal weather changes.

Multi and shared use

Infrastructure should be efficiently designed to promote equitable and flexible use by a mixture of users capable of sharing facilities and usage times. In particular, the facility space planning and design of public spaces should adopt a multipurpose approach. This may mean two unisex change rooms/amenities and should include facilities for able-bodied, ambulant persons and persons with a disability (PWD), which can be used equally by a male or female team, as and when required. This could also equate to larger change rooms with divisible walls which can be converted into multiple smaller change rooms when required.

Compatibility

Identification of compatible sports, teams, activities, clubs or organisations with similar objectives and requirements for facility design, use and management should be promoted. Examples of this would be shared cricket and AFL facilities where they use the same pitch, or indoor sports where the same surface is used but the pitch size can be varied to suit the individual sports.

Public Safety

Crime Prevention through Environmental Design (CPTED) takes into consideration the relationship between users and the physical environment in the design of public spaces in crime prevention and assists with public safety. This may include sufficient lighting in dark areas or reducing secluded or entrapment areas.

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. Examples of good practice include the incorporation of; sufficient emergency exits, suitable surfaces (non-slip where appropriate) and clear, concise signage.

Acknowledgement and Links to Further Information

https://www.sportaus.gov.au/integrity_in_sport/inclusive-sport/evidence-and-resources

Best practice principles | NSW Government

Overview of universal design - Sport and Recreation Victoria

HCMA_Designing-for-Inclusivity_V1-1.pdf

Accessible_and_Inclusive_Sport_and_Active_Recreation_web.pdf (nsw.gov.au)

What is Universal Design?

Universal design is a design philosophy that ensures that products, buildings, environments and experiences are innately accessible to as many people as possible, regardless of their age, level of ability, cultural background, or any other differentiating factors that contribute to the diversity of our communities.

Universal design can be applied to all fields of design, including but not limited to product design, interactive design, architecture, and urban planning.

How much will Universal Design add to the cost of my project?

In most cases universal design will not add any additional cost to a project. In fact, applying universal design principles can often save costs, particularly in the long run.

In addition, universal design can often increase revenue and financial viability at a facility by catering for a broader cross-section of the community, thereby increasing patronage.

What are the seven Universal Design principles?

1. Equitable Use	The design is useful and marketable to people with diverse abilities.	1a. Provide the same means of use for all users: identical whenever possible; equivalent when not. 1b. Avoid segregating or stigmatizing any users. 1c. Provisions for privacy, security, and safety should be equally available to all users. 1d. Make the design appealing to all users.
2. Flexibility in Use	The design accommodates a wide range of individual preferences and abilities.	2a. Provide choice in methods of use. 2b. Accommodate right- or left-handed access and use. 2c. Facilitate the user's accuracy and precision. 2d. Provide adaptability to the user's pace.
3. Simple and Intuitive Use	Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.	3a. Eliminate unnecessary complexity. 3b. Be consistent with user expectations and intuition. 3c. Accommodate a wide range of literacy and language skills. 3d. Arrange information consistent with its importance. 3e. Provide effective prompting and feedback during and after task completion.
4. Perceptible Information	The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.	4a. Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information. 4b. Provide adequate contrast between essential information and its surroundings. 4c. Maximize "legibility" of essential information. 4d. Differentiate elements in ways that can be described (i.e. make it easy to give instructions or directions). 4e. Provide compatibility with a variety of techniques or devices used by people with sensory limitations.
5. Tolerance for Error	The design minimizes hazards and the adverse consequences of accidental or unintended actions.	5a. Arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded. 5b. Provide warnings of hazards and errors. 5c. Provide fail safe features. 5d. Discourage unconscious action in tasks that require vigilance.
6. Low Physical Effort	The design can be used efficiently and comfortably and with a minimum of fatigue.	6a. Allow user to maintain a neutral body position. 6b. Use reasonable operating forces. 6c. Minimize repetitive actions. 6d. Minimize sustained physical effort.
7. Size and Space for Approach and Use	Appropriate size and space are provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.	7a. Provide a clear line of sight to important elements for any seated or standing user. 7b. Make reach to all components comfortable for sitting and standing 7c. Accommodate variations in hand and grip size. 7d. Provide adequate space for the use of assistive devices or personal assistance.

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