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## Introduction



(<https://www.youtube.com/watch?v=XbCeOpK7aWw>)

**Good design is critical to ensuring that people of all ages, life stages and abilities can enjoy Auckland safely, easily and equitably.**

As Auckland grows over the next thirty years our city will change, there will be new places to live, work and play. People should be at the centre of every project, so whether it is a building, a park, a street or a neighbourhood, it should be designed with people in mind.

We constantly interact with the built environment and rely on our available senses to do so. This means that design should be considered from the following points of view:

- Visual — what we see
- Auditory — what we hear
- Tactile — what we touch
- Cognitive — what we understand
- Physical movement – how we move our bodies around

As we pass from childhood to old age, we experience changes in our senses and physical abilities, which affect the way we perceive, use and interact with the environment around us.

People share many universal needs during their lifetime. If these needs are considered at the start of the design process, the outcome can accommodate nearly everybody and cater for specific needs (if required) for little or no additional cost. The Universal Design approach is:

*“design that makes things easier, safer, healthier and friendlier for everyone (Steinfeld & Maisei, 2012)”.*

The Goals of Universal Design provide the framework for what universal design aims to achieve – such as social inclusion, health and wellbeing, cultural appropriateness and equity.

The uptake of a Universal Design approach is emergent in Auckland and New Zealand. Current building legislation (such as NZ Standard 4121:2001 Design for Access and Mobility – Buildings and Associated Facilities) provide some guidance, but often take an engineering approach. This focus on accommodating people with disabilities in a special or different way both marginalises that part of the community and ignores the needs of other groups, such as children, expectant mothers, older people, migrants, and visitors.

The Universal Design Hub provides information and resources to help you understand how people at various life stages and scenarios interact with the built environment. It introduces a design approach usable by architects, designers, developers, etc. to make places that are enjoyable and functional for all people.

## What is Universal Design?

**The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialised design (*Mace, 1985*).**

It is clear from these definitions, that Universal Design is a holistic design philosophy that aims to create environments, products, learning and education programmes and systems that can be used by as many people as possible. In other words, it makes things more accessible, safer, and convenient for everyone regardless of age and ability.

Universal Design is often used interchangeably with other terms such as accessible design, barrier-free design, design for all, inclusive design, etc.

While not the same, Inclusive Design and Design for All are similar in terms of the philosophy of recognising the broad spectrum of human abilities. Everyone passes through infancy, childhood, periods of temporary illness, injury and old age. We can all be disabled by the urban environment when the design does not match the population's range of needs. Universal Design has been confused with accessible design or design for the disabled. Accessible design is easily identifiable and is often utilitarian in style. In contrast, good design incorporates universally designed features that are generally unnoticeable except for the fact they are more convenient. At the same time, Universal Design is not the one-size-fits-all approach that some designers perceive it to be. Universal design is about flexibility and offering choice, so that people can decide how to best interact with their environment.

The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2006) refers to Universal Design and it is the most commonly used term in the Southern Hemisphere region. The World Health Organisation (2002) also recognises Universal Design as being critical to resolving the disconnect between design and the range of human function among end users. For these reasons, the Auckland Design Manual has also adopted the term Universal Design.

Although Universal Design is applicable to a variety of design situations, the Auckland Design Manual will focus on the built environment. We refer to the built environment in its broadest context including transport, streetscapes, parks and outdoor facilities, way finding/signage as well as public, private and residential buildings.

## Universal Design and the Built Environment

**Universal Design is a design approach and process; it is not prescriptive, and it is not an end in itself. It is applicable to all projects, products, learning programmes, systems and services.**

Universal Design recognises human diversity and basic human rights. It focuses on the needs that are common to us all

and aims to incorporate features that will enable as many people as possible to independently use and interact with an environment, object or a product.

Industries such as car manufacturers have recognised this, and designed adjustable car seats to suit different body sizes. If further specification is required, cars are flexible enough to accommodate specialised features such as hand brakes instead of foot brakes.

However, the built environment is more permanent and takes longer to develop and construct. Careful planning is required to ensure the range of tolerances/allowances required. The adaption or retrofitting of an inappropriately designed environment is likely to be slow and expensive. This results in some groups of people being excluded altogether or having significant difficulties for a considerable time.

To prevent such exclusions or barriers, it is essential that the starting point for any design is to aim to meet the needs of as many people as possible. Careful consideration is required of all elements of a building including the outside and surrounds, entrances and exits, as well as inside of the building.

## Introduction

**The Eight Goals of Universal Design were developed to provide a clear and holistic picture of what the universal design approach aims to achieve.**

They are a combination of body awareness (Body fit, Comfort, Awareness and Understanding) and wellbeing goals (Social integration, Personalisation and Cultural Appropriateness).

**Body Fit** - Accommodating a wide a range of body sizes and abilities

**Comfort** - Keeping demands within desirable limits of body function

**Awareness** - Ensuring critical information for use is easily perceived

**Understanding** - Making methods of operation and use intuitive, clear and unambiguous

**Wellness** - Contributing to health promotion, avoidance of disease and prevention of injury

**Social Integration** - Treating all groups with dignity and respect

**Personalisation** - Incorporating opportunities for choice and the expression of individual preferences

**Cultural Appropriateness** - Respecting and reinforcing cultural and the social and environmental context of any design project

*(Steinfeld and Maisei, 2012)*

These goals underpin the Universal Design approach and help to deliver a broad framework for the design of places, systems, information, policy, and strategy. The goals enable us to understand the wider purpose of Universal Design, instead of just trying to address it through technical standards or a checklist.