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## Neighbourhood Planning and Design

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### Introduction

The design and layout of new neighbourhoods greatly influences the nature of the urban form.

When a neighbourhood is well designed it:

- allocates land for a range of uses, eg shops, community centres, parks, as well as housing, thus enabling a community to meet most of its daily needs within walking or cycling distance of where people live
- sets the urban character and design of an area
- provides the footprint for public spaces that allow social interaction, and
- defines access and movement networks that will encourage active transport.



Neighbourhood paths at Burswood, Perth  
Source: TPG Town Planning and Urban Design

A well designed neighbourhood will assist in enhancing the health and wellbeing of a community by encouraging people to be more physically active and engaged in the community.



## Development Type - Neighbourhood Planning and Design

[www.healthyplaces.org.au](http://www.healthyplaces.org.au)

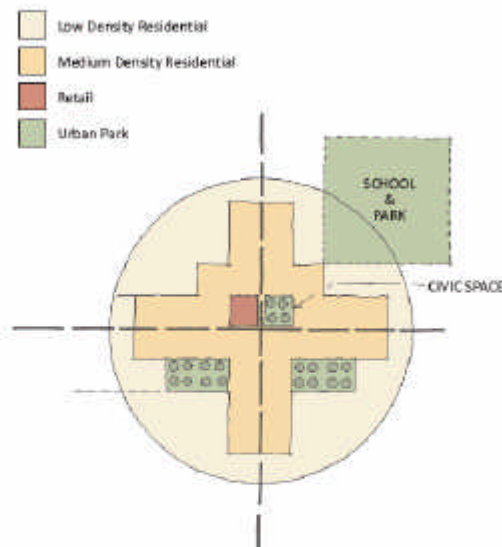
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### PLANNING CONSIDERATIONS

The planning and design for new neighbourhoods needs to support liveable and sustainable communities. That is, neighbourhoods that offer a range of opportunities to meet the daily needs of the community within walking and cycling distance in places that are safe, attractive and convenient.

The planning and design of new neighbourhoods should integrate with adjoining neighbourhoods through integrating and linking access and movement networks (eg cycle paths) and integrating with key destinations in the adjoining area such as schools and shops.





#### RESIDENTIAL SUBDIVISION

This figure indicates the general arrangement of a walkable neighbourhood. Key components are a local shop at the core, surrounded by medium density residential and then low density residential, all within a 5 minute walk of the neighbourhood centre. The street network (not shown) must be designed to provide a choice of movement options to the centre and within the neighbourhood.

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#### Health and Planning Fact

Examples can be found in Australia of low density residential development with few if any, key attractors and destinations, such as shops and employment and which have been planned around the car. Such areas have resulted in lower levels of physical activity and reduced levels of social cohesion and interaction (VicHeath Active Transport Fact Sheet, 2007).

It is recognised that increased car use leads to a decrease in physical activity. A study undertaken in Atlanta, Georgia (USA) found that every additional 30 minutes driving per day translates into a 3% increase in the likelihood of being obese, with each additional

kilometre walked per day associated with a 4.8% reduction in the odds of being obese (Frank, Andersen & Schmid, 2004).



Walkways in new subdivision, Perth  
Source: Planning Institute of Australia

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### PRACTICE ADVICE

#### Good Practice

The physical characteristics of neighbourhoods that encourage people to be more physically active and connected to their community include:

- mixed land use offering a range of opportunities and destinations for the community to meet people's daily needs, eg employment, shopping, education, recreation
- mixed density of development, increasing the population catchment around key destinations and public transport, and improving the viability and vitality of activity centres
- an active transport network, including an interconnected street network and a safe and legible walking and cycling network that enables direct access to key destinations
- availability of public transport and suitable shelters
- integration with adjoining neighbourhoods such as with cycle paths and access to key destinations in the adjoining neighbourhood, and
- access to active and passive public open space that caters for multiple users such as sports players and recreational walkers.

The characteristics above need to be considered in the context of design based on a walkable catchment. The extent of a walkable catchment is generally defined by a circle of radius 400m or a 5 minute walk around a centre and an 800m or 10 minute walk around a centre that includes a public transport stop. As bicycles generally travel three to four times faster than a person on foot, the bicycle catchment for a five minute ride is around 1.5km (Western Australian Planning Commission, 2007).

However, the extent of a catchment can be impacted by physical and environmental barriers that deter walking, such as a busy road that is difficult to cross or where there is a need to pass through an area that will make people feel unsafe or uncomfortable. A neighbourhood that incorporates well connected streets, with limited barriers to walking can achieve at least 60 per cent efficiency, that is 60 per cent of the area within a 400m or 800m radius of the destination can be reached by a 400m or 800m walk along streets. With poorly connected streets, efficiency can be as low as 10 per cent (Department of Planning, Infrastructure and Natural Resources, 2004).



New subdivision, Shellharbour, NSW  
Source: Planning Institute of Australia

### Avoid

- Gated communities as they do not encourage residents to connect with the public realm and inhibit connectivity in and between neighbourhoods.
- Street layouts that do not allow direct pedestrian movement through the neighbourhood.
- Neighbourhoods that do not allocate appropriate levels of services to residents such as shops and schools.
- Barriers to walking such as busy roads, creeks, etc with no safe crossing points.



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### REFERENCES

City of Greater Geelong and David Lock, 2008, *Clause 56 Walkability Toolkit - Making walking preferable, not just possible*, City of Greater Geelong.

Department of Planning, Infrastructure and Natural Resources (DIPNR), 2004, *Planning Guidelines for Walking and Cycling*, Department of Planning, Infrastructure and Natural Resources, Sydney.

Frank, L. D., Andersen, M. A., Schmid, T. L., 2004, 'Obesity relationships with community design, physical activity, and time spent in cars'. *American Journal of Preventative Medicine*; 27(2):87-96.

National Heart Foundation of Australia (Victorian Division), 2004, *Healthy by Design: a planners' guide to environments for active living*, National Heart Foundation of Australia (Victorian Division), Melbourne.

Western Australian Planning Commission, October 2007, *Liveable Neighbourhoods*, Western Australian Planning Commission, Perth.

VicHealth, 2007, *Active Transport Fact Sheet*, VicHealth, Melbourne, viewed on 18 February 2009, [www.vichealth.vic.gov.au/physicalactivity](http://www.vichealth.vic.gov.au/physicalactivity).

