3.0 Users of the Street
At some time we’re all pedestrians. We may drive or ride from one place to another but at some point we have to get out of our car, bus or off our bike and walk. Even wheelchairs require pathways. With a growing obesity in the population, the proportion of distance that each of us walks needs to increase. Combining the health imperatives of a future active community with the need to develop more sustainable neighbourhoods means that walkable communities are essential for positive futures.

The ease of walking is determined by the distance between our place of residence, our destination and our physical abilities, but the incentive and our desire to walk is more influenced by the quality of the experience. The majority of our walking experience in the public domain is in the street and as such, walkers need to be provided with the facilities and quality of environment that makes it enjoyable to be there.

A good part of providing us with the facilities and incentives for walking is the design of our neighbourhoods to make them more walkable. In view of this, the distances from where we live to where we shop or play or even work needs to be based on what is reasonably easy to walk.

The quality of the experience can and must vary as we expect a different experience when walking in our local street to that of the centre of town or near a highway. In our local street or the centre of town we expect to be able to walk anywhere in the public realm, even across the roadway, with relative ease at any location.

We expect the pedestrian to dominate. However, the opposite is expected on the highway where the primary function is to effectively and efficiently move vehicles between destinations. The requirements and facilities provided for pedestrians and vehicles therefore differs with changes in the function of the place.

Pedestrians need a well linked easily understood network of paths that feel and are safe from crime and traffic. This does not mean a system of isolated pathways away from the vehicle network. On the contrary, the street system is the best place for safety through the surveillance of many eyes on the street from passers by and adjoining properties.

If designed logically, the street system can also be easily understood with visible destinations and sightlines, short lengths and a minimum of opportunities for wrong turns. In this way the layout of the street system needs to be logical with the provision of cues and landmarks that are easily understood and direct pathways are essential to wayfinding.

It is important to consider those less able when designing the street; those with ambulatory, sensory and cognitive disabilities but also the aged and the young. If you can satisfy the needs of the these users you have satisfied the needs of all.

As with cyclists and motorised vehicles, pedestrians and bicycles travelling on the same path are at risk from a larger vehicle moving at a much greater speed. Cyclists should be catered for on the carriageway where possible to reduce this risk or, where not appropriate and a mix of cyclists and pedestrians on the same path is likely, the path needs to be widened to cater for the needs and safety of both users.

The first priority in designing for people in the street is to identify where they may want to walk. The resultant Pedestrian Desire Lines should be satisfied wherever possible especially at intersections and where busy pedestrian activity is found.

Kerb Lines that run parallel to buildings are easily understood and provide the traditional distinction between the roadway and the footpath. Build-outs, island refuges and staggered pedestrian crossings tend to fragment the street.
Build-outs place the pedestrian out next to the traffic and should only be used where specifically required to gather space for the pedestrian or, to narrow the roadway for ease of crossing that is more convenient and safe or, where the alternative would be to apply unattractive street marking.

Above or below grade access for pedestrians should be avoided due to the quality of the experience and problems of ensuring personal safety. Where the need to provide subway or overpass access in unavoidable then it must be short, direct, well lit and safe with good visual access to the destination points. However pedestrian needs should be considered first in design of streets and alternative measures found to satisfy the grade difference issue.

**Design Principles:**

- **Ensure neighbourhoods are designed as walkable places where the streets are comfortable and inviting to walkers, cyclists and the disabled:**
  - Design communities that are pedestrian orientated with walkable distances between origins and destinations.
  - Achieve appropriate density that makes good efficient use of facilities that are sustainable and able to provide facilities and services within 5 minutes walking distance of the majority of pedestrians.

- **That the quality of the walking environment and pedestrian facilities are appropriate to the location and the needs of the users.**

- **Pedestrians need a well linked easily understood, logical and accessible network of paths that feel and are safe from crime and traffic:**
  - Locate paths in locations that are overlooked to increase security through surveillance.
  - Design paths that are easily understood, with visible destinations and sightlines.
  - Provide paths of short lengths with a minimum of opportunities for wrong turns.
  - Design paths that are accessible at night as well as through the day.
  - Design paths that are logical and direct with the provision of cues and landmarks in the street that are easily understood.

- **Consider those less able when designing the street, the aged and young and those with ambulatory, sensory and cognitive disabilities:**
  - Cater for vehicles used by the disabled and aged.
  - Provide surfaces to footpaths that are smooth and free from trip hazards, have minimal crossfall and are properly drained.

- **Provide seating, bubblers and associated elements on paths that are part of a long distance route or have heavy pedestrian activity:**
  - Place seating:
    - approximately 100 m apart,
    - where good natural surveillance is available,
    - with other appropriate furniture, and
    - and preferably at locations adjoining appropriate uses such as bus stops, school and aged facility entries and outside takeaway shops.
Design to reduce conflict between cyclists and pedestrians.

Pedestrians are to have priority in the street, their needs should be considered first as they are the most impacted by their environment and the least able to manage it:

- Pedestrian ‘Desire Lines’ should be satisfied wherever possible especially at intersections and place of busy pedestrian activity.
- Minimise the distances and time that pedestrians are exposed to traffic by reducing volume and speed of traffic and narrowing roadways in important pedestrian streets.
- Pedestrians should be unimpeded and comfortable in the street at all times and in all seasons.
- Create a continuous and predominantly straight path for pedestrians to navigate through in the street.
- Avoid substantial changes in grade for pedestrians.
- Minimise obstructions to footways especially for the sight impaired.

Avoid where possible the need for above or below grade access for pedestrians such as narrow bridges and subways.

Streets and the elements in them should be designed to relate to and be at an appropriate scale to users.

Design and maintain streets to ensure there is a feeling of safety as well as being safe:

- Provide pathways in locations that are overlooked for a good proportion of the day and night (e.g. shops and offices through the day and living rooms to dwellings at night).
- Design or build out blind corners, dark areas, hiding places and blank walls so there is good visual access between the public and the private realm.
- Provide good lighting with no dark spots, particularly on paths used at night.
- Maintain the area well to quickly remove any evidence of anti-social behaviour (e.g. vandalism or litter).

Provide adequately wide unobstructed pedestrian pathways on verges recognising the level of pedestrian activity, the context and the local need:

- Pedestrian pathways wider where people move in large groups e.g. near school gates, but not too wide to make them feel uncomfortable and vulnerable.

Urban street edges should provide continuous enclosure and be of a scale that is reflective of the human dimension.

Buildings on street edges should be appropriately transparent to improve the feeling of overlooking and security for pedestrians.
Cyclists

There is considerable variation in the type and the needs of cyclists. They ride for sport, to school, to work, for exercise or to play. They could be exceptionally fit, aged or very young. There are however some common needs in the street that can make the cyclist’s journey whoever they are, more enjoyable for the trip and/or the arrival.

Cyclists, as with pedestrians, need a coherent network that, where possible reflects the road system. The network needs to link with key destinations and be scaled to the users needs. Especially on recreation routes, the aesthetic values of the route are important, as is the integration of the route with the context. It is important that cyclists feels safe and are safe, as with the pedestrian network, the cycle network needs to be located to ensure opportunities for casual surveillance are available.

Cyclists can generally be provided for on the roadway with special lanes where the traffic volumes and speed warrants. At the same time care needs to be taken that cyclist are not placed into situations of undue risk through conflict with vehicles. This is especially true of the less able cyclist, the aged and the young.

To support the growing use of cycles in the region more cycle racks and other facilities such as seating and bubblers need to be provided at places of interest and destination. Without cycle racks cycles are often parked haphazardly and can cause an obstacle and a danger for pedestrians, especially those who are aged and/or disabled.

Design Principles:

- Provide a coherent barrier free access network for cyclist, as part of the street network:
  - Provide direct barrier free cycle routes with smooth surfaces.
  - Provide signage that informs the cyclist of the route, destination and cycle facility availability.

- Reduce the incidence of conflict between cyclists and pedestrian.

- Provide end of trip facilities in the streetscape at destinations:
  - Place cycle racks, bublers and seats as close as possible to a destination.
    - in a location that provides appropriate casual surveillance.
    - in a location that does not obstruct pedestrian pathway and/or sightlines.
    - in a location that is on a level base or if not then place so as cycles stand across the slope, and
    - in small groups and spaced along the street rather than in a large group.

- Co-locate cycle racks with other street furniture to reduce clutter and make the most of a synergy of use.

- Relate cycle facilities to their surroundings and adjoining street furniture.
On-road Public Transit provides an extended and flexible network of public access across and out of the region. Beginning and end of trip public transit facilities need to be of a high quality to ensure as high a patronage as possible is attained. Appropriate quality beginning and end of journey facilities are essential to the comfort level of passengers.

Good public transport is a key to providing walkable neighbourhoods and the assurance that compact community development is sustainable and viable.

As a minimum, bus stops need to be well integrated into the street and are located to provide walkable access for the majority of the population. Bus stops should be at locations where pedestrian pathways coincide and where the level of patronage will be high. Stops need also to be located at intervals along routes that ensure that the majority of communities that they travel through are within easy walking distance.

Where passengers are required to spend any time waiting to begin their journey or the next stage in a journey, the need for shade and shelter is high. The need for shelters should be assessed against use criteria.

The greatest need for shelters are at locations where passengers are accessing the service and/or waiting for a change of service. This occurs on the inward bound routes from residential areas and at locations where passengers wait near or outside places of employment. Stops where passengers depart from the service, unless waiting for further transport, are less in need of shelter.

The preferred orientation for shelters is to face the carriageway with clear visual access to the approaching service and to the back of and not to obstruct the pedestrian movement.

Bus shelters are a significant element in the street due to the activity they generate, their size and visual impact. Therefore location and design needs to be considered carefully in relation to the context, other street furniture in the proximity, their impact on other users and uses of the street and the needs of the passenger.

Shelters need to be well lit where they may be used at night and to deter anti-social activity.

Care should be taken if advertising is to be attached to the facility to ensure that they do not add significantly to light pollution, clutter in the area and/or obscure sightlines to and from the facility, especially in the direction of bus approaches. If the advertising is to be illuminated consideration should be made of the impact of large illuminated surfaces in the vicinity. This can be pronounced in suburban residential streets.

At node points of different transport modes, bus/train, local/long distance bus, such as bus interchanges and regional and interstate bus centres, the quality and size of the development will require greater shelter and may require enclosed facilities including amenities and offices.

No matter what the size of the facility however, from bus shelter to interchange, the facility should be well connected to the street and transparent to allow good visual access to and from the facility for good casual surveillance.
**Design Principles:**

- **Bus stops need to be visible and convenient to pedestrians:**
  - Site bus stops relatively close to pedestrian desire lines and preferably at:
    - the junction of more than one pedestrian route, and
    - passenger destinations e.g. shops, schools.

- **Bus shelters are needed at bus stops where passengers will be required to wait for a service.**

- **Integrate bus shelters into the streetscape with the use of high quality materials and designs that recognise the character and context.**

- **Provide sufficient space at the bus stop to ensure that those waiting feel comfortable and do not obstruct pedestrian paths.**

- **Consideration should be given to providing locality information in near to bus stops, especially in places where tourist and visitors to the area are most likely.**

- **Consider locating cycle storage at bus stops.**
Private Vehicles

Private vehicles by far provide the most used transport mode and as such are an important part of contemporary streetscape and will be for some time into the future. They are an essential part of the street scene and must be considered when designing in streets. If managed carefully, private vehicles can be a positive element in the street providing movement, colour and a barrier between moving vehicles and the footpath for pedestrians.

They can also degrade the street’s quality as a place for people if they are not managed and stored appropriately. The effect of their speed and volume needs to be considered as well as where and how they are stored and the impact of services to cater for their use. One of the highest impacts on a street is the method and amount of car parking that is provided.

On-street parking is the most common source of parking providing temporary vehicle storage for residents, workers and visitors to a place. It is the most efficient form of vehicle parking as it does not take up land which is best used for other purposes (especially in urban centres). As parking in the street is accessible by all at all times, day and night, it can be used by a variety of users.

On-street parking can provide a useful buffer between pedestrians and the traffic lanes. However on-street parking can reduce the number of places that pedestrians may cross the street and obscure them from oncoming traffic. Vehicles parked in the street can add a feeling of populating the street with activity and colour, though too much can reinforce the feeling of vehicle domination of the street throughout the day.

No matter what the location, parking should be able to be overlooked to improve security for vehicles and those assessing them.

When providing for parking off the street it needs to be designed to ensure that it has as little as possible impact on the qualities of the street. Parking areas for cars should not be located so as they are on the street edge but should be placed behind buildings and other uses that are more appropriate to a street frontage.

The access points to off-street vehicle parking can also have a detrimental impact on the street. Consideration should be given to a reduction in their number and width if possible and their location to areas where their impact is minimum. Preferably to the rear of the building. The streets in centres, especially the main street, is the most sensitive to off street car parking with shop fronts being continuous with little to no interruption.

Uses that are designed to service vehicles and to provide directly for the car rather than the pedestrian (e.g. Service Stations, Drive Thru) should be discouraged in areas where pedestrians dominate such as centres and residential areas. They should be located further to the edge of communities and on streets that are more related to higher vehicle and less pedestrian uses.

The scale and size of the setback to buildings and vehicle manoeuvring areas to the front of and around uses, such as service stations buildings, is to respond to the immediate context. Driveways and parking should not be designed to be between the footpath and the building entry and should be placed at the rear or side of a building and in a location that does not hinder pedestrian access.
Design Principles:

• On street parking should be encouraged where appropriate, to:
  • reduce the need for parking on land best use for other purposes;
  • increase street activity and visual diversity; and
  • provide a safety barrier between the carriageway and the pedestrian realm
  • provide for access for commercial and emergency vehicles.

• Parking should be located as to:
  • ensure casual surveillance of the vehicles;
  • be well integrated with the qualities of the street and streetscape;
  • be close to destinations, services and amenities; and
  • not hinder pedestrian desire or sight lines.

• There should be no vehicle obstruction to the footpath with no vehicle parking between the street edge and the built edge.
  • Drive-in uses such as takeaway, banking, hardware etc must not be located to street frontage except in industrial and highly car dominated areas and even then with care to the pedestrian.
  • No parking to be located between the roadway and buildings frontage (e.g. front yards).
  • Vehicle access to rear parking etc should be kept to a minimum in size and number and should not be found on the most important pedestrian frontages (e.g. main streets).

• Vehicle access to private parking areas should be placed in discrete locations to the edge or rear of developments and main streets and consolidated to reduce the number of points of access.
  • They should be located so as they do not disrupt the flow of pedestrian movement or compromise their safety.

• Discourage uses or services that generate greater vehicle numbers and movements (eg takeaway drive-throuhs and service stations) in areas of high pedestrian activity (e.g. centres and residential areas).
  • Driveways to car parking and drive-thru facilities are not to be at the front of buildings to the street.

• Entries and exits to carparking to be located to not disrupt the flow of pedestrians or compromise their safety.

• Parking to the front of buildings should be on-street separated from the building face by a footpath.

• No vehicles are to be parked directly up to the front of buildings.

• Don’t inhabit the street frontage with carparking structures whether on ground or in multi-storeys.

• Reduce the number and size of driveways to the street in urban areas, better to access from the rear.