PEDESTRIAN WAYFINDING IN TIMARU CBD

A REPORT FOR TIMARU DISTRICT COUNCIL

FINAL

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EXECUTIVE SUMMARY

It is proposed to develop a pedestrian wayfinding system to encourage walking to and within Timaru CBD. This Report provides the results of:

- Research into 'best practice' pedestrian wayfinding and the latest signage thinking in the UK
- A study of signage system requirements

The principal recommendations are:

- A sign family is proposed based on world best practice initiated by Bristol UK, but recognising refinements made in Bendigo, Melbourne and Port Phillip. Recommendations are made for the location, orientation, style and content of signs
- A full specification suite of signs is recommended as are lower specification alternatives
- It is strongly recommended that walking times are incorporated in the signage
- A free paper copy of the 'Master Walking Map' should be distributed widely
- It is recommended that street name signage be installed in the centre of the CBD, in the area bounded by (and including) Strathallan St, Church St, Perth St, George St and Station St.
- It is recommended that serious consideration be given to installing a suite of custom-made litter bins that can incorporate street name signs
- The installation of new signage elements should be accompanied by removal of old signage and other street clutter
- There is a need for a pedestrian audit of the CBD to take place before installation of signs takes place, to avoid the risk of encouraging pedestrians to use routes that may not be safe. The audit would evaluate connectedness, comfort, conviviality and convenience of the pedestrian environment in the CBD and would also identify and audit the 'gateways' to the CBD
- The signage system and the pedestrian audit should be pulled together into a Pedestrian Strategy for Timaru. This would also contain recommendations for rolling out signage and other improvements to the walking environment to other parts of Timaru beyond the CBD

PEDESTRIAN WAYFINDING IN TIMARU CBD

1. INTRODUCTION

1.1 The benefits of encouraging more walking

There are many good reasons for governments and communities to support more walking:

- Increased walking in the community can significantly reduce public health costs. Increased walking has positive impacts on the rates of obesity, diabetes, cardiovascular disease, osteoporosis, blood pressure, cancer, mental health, and the maintenance of mobility and personal independence
- More walking will assist in increasing public transport patronage
- The provision of better walking environments increases individual travel choices
- Increased levels of walking are good for the economy
- More walking (and less car use) reduces emissions and problems such as pollution, and climate change
- More walking will lead to safer and more socially integrated communities
- Walkable communities are child-friendly communities
- More walking and less car use lowers Local Government capital and maintenance cost of providing for movement, through reducing the need for car parking, road space and traffic infrastructure
- Walking is a win-win-win, for individuals, the community and the environment

Cities that foster the development of legible and walk-friendly environments are likely to be successful and vibrant from a range of perspectives. Cities that are good for walking are also good for meeting, visiting, shopping, spending and watching the world. Cities that attract pedestrians are places where people want to be.

However, more walking, by more people, more often, depends on the provision of attractive, safe, comfortable and coherent pedestrian networks which are clear and easy to follow. Clear wayfinding signage for pedestrians is an essential pre-condition for the development of high quality pedestrian environments. A pedestrian wayfinding system is thus an important element in a suite of initiatives designed to make walking (and cycling) more attractive for residents, employees and visitors alike.

1.2 The Brief: Draft proposal for a wayfinding strategy for Timaru CBD

It is proposed to develop a pedestrian wayfinding system to encourage walking to and within the CBD. This Report's contribution to that process involves:

- Specification of locations for signage
- Specification of content for each sign
- Adoption of a street name standard for treatment of intersections

The full Brief appears as Appendix 1.

2. THE CONTEXT FOR A WAYFINDING SYSTEM FOR TIMARU

2.1 The national context

2.1.1 The Timaru Draft Active Transport Strategy

The *Timaru Draft Active Transport Strategy* reports that *"Central government is putting significant effort and resources into strategies to achieve more sustainable transport systems and more active living within communities."* Some of the initiatives include:

- New Zealand Health Strategy
- New Zealand Climate Change Programme
- New Zealand Transport Strategy

2.1.2 The New Zealand Transport Strategy

In 2004 the *New Zealand Transport Strategy* was produced with the following objectives:

- Assisting economic development
- Assisting safety and personal security
- Improving access and mobility
- Protecting and promoting public health
- Ensuring environmental sustainability

2.1.3 The Draft New Zealand Pedestrian Facilities Network Design Guide

In 2004 the *Draft New Zealand Pedestrian Facilities Network Design Guide* was released. One section of this focused on signage and the relevant paragraphs are included in this Report as Appendix 2. It should be noted that the recommendations in this report are consistent with those in the Design Guide.

2.2 The regional and local context

2.2.1 Regional strategies

Environment Canterbury **(**Regional Council) has produced the following documents:

- Regional Land Transport Strategy
- Timaru Passenger Transport Strategy
- Cycling in Canterbury

2.2.2 Local strategies

The Timaru District Council has a Transportation Vision. This vision is:
"we will provide a transport system that promotes community prosperity."

The Timaru District Council is soon to commence a Physical Activity Plan.

The *Timaru Draft Active Transport Strategy* was produced in 2006 and states that it could contribute to achieving the objectives of the NZ Transport Strategy by:

- Reducing transportation costs
- Reducing congestion costs
- Increasing tourism opportunities
- Reducing health costs

(All of these would contribute to the New Zealand Strategy of "assisting economic development")

- Developing more and safer off-road cycling facilities
- Providing safer rural roadsides and shoulders
- Providing more cycle lanes
- Improving linkages to public transportation
- Improving footpaths and safer road crossings
- Providing better facilities for vulnerable road users

(All of these would contribute to the New Zealand Strategy of "assisting safety and personal security and improving access and mobility")

- Reducing vehicle emissions / pollutants
- Increasing physical activity levels within the community
- Reaping benefits from improved open space and urban design

(All of these would contribute to the New Zealand Strategy of "protecting and promoting public health and ensuring environmental sustainability")

The Strategy's Vision is:

- *"The Council, together with the Timaru District community, will realise the potential that the district offers to maximise participation in active transport."*

Its proposed policies include:

- Encourage and assist with active transport initiatives that increase tourist numbers
- Provide resources to develop high standard cycle and walking networks

The principles of design are articulated as follows:

- Aim for a total network (coherent, connected, complete)
- Make routes as direct as possible (convenient)
- Make facilities attractive (comfortable, convivial, compatible)
- Make facilities safe (conspicuous, capable)

2.2.3 Context summary

These documents reflect the resurgence of interest in New Zealand in encouraging active and sustainable modes such as walking and cycling and the recognition that appropriate environments need to be provided if these modes are to flourish. The provision of more and better wayfinding signage in Timaru is thus in line with national policy. Moreover, signage is essential for Timaru's own Active Transport Strategy vision to be achieved, its policies to be articulated and its principles to be followed.

3. IDENTIFYING A LOGICAL PEDESTRIAN NETWORK

3.1 The pedestrian network

The Study Area is indicated on Figure 3.1. It is bounded by the railway to the east and north, North St to the south and Grey Road to the west. Though this area is broadly described by the acronym 'CBD', it is evident that within it there is a district where there is a particular concentration of retail, civic and commercial activity. Within the area contained by Station St, Strathallan St, Church St, Perth St and George St are the busiest pedestrian streets, the most shops and offices and the most attractive environments for people on foot. This is the Timaru Activity Centre.

However, though the level of pedestrian activity varies considerably throughout the CBD, it is not sensible to isolate some streets as the 'pedestrian network' and thereby exclude others. Of course the current of foot traffic is strongest in Stafford Street and nearby, but this is simply the aggregation of many tributary flows. People access the CBD from many points of the compass from surrounding residential areas, whilst others join from peripheral car parks and bus stops. Still others flow through to the foreshore, parks, community facilities and neighbouring schools. Without these connections, activity in the core would be stifled. Logically, then, all of the streets in the CBD should be thought of as part of the 'pedestrian network'.

The present Report is concerned with wayfinding signage. Ideally, such a Report would be part of a process which begins with an audit of the pedestrian environment, to identify the infrastructure in place and assess its quality, and to spot missing elements or maintenance issues that may make use of the network unattractive or unsafe. However, for logistical reasons that ideal sequencing has not been possible in this case. This has two consequences, the need for a pedestrian audit and the need to identify the location of 'gateways'.

3.2 The need for a pedestrian audit

The development of improved legibility, through the use of signage with an emphasis on the needs of the pedestrian, will normally lead to more walking within a city. However, it is axiomatic that people should not be encouraged to cross roads or walk more where it is unsafe or unpleasant to do so. As a result, it is strongly recommended that before signage installation takes place, an audit of the pedestrian environment takes place. The standard methodology would use the 'Five Cs' (see Figure 3.2). This will identify the necessary

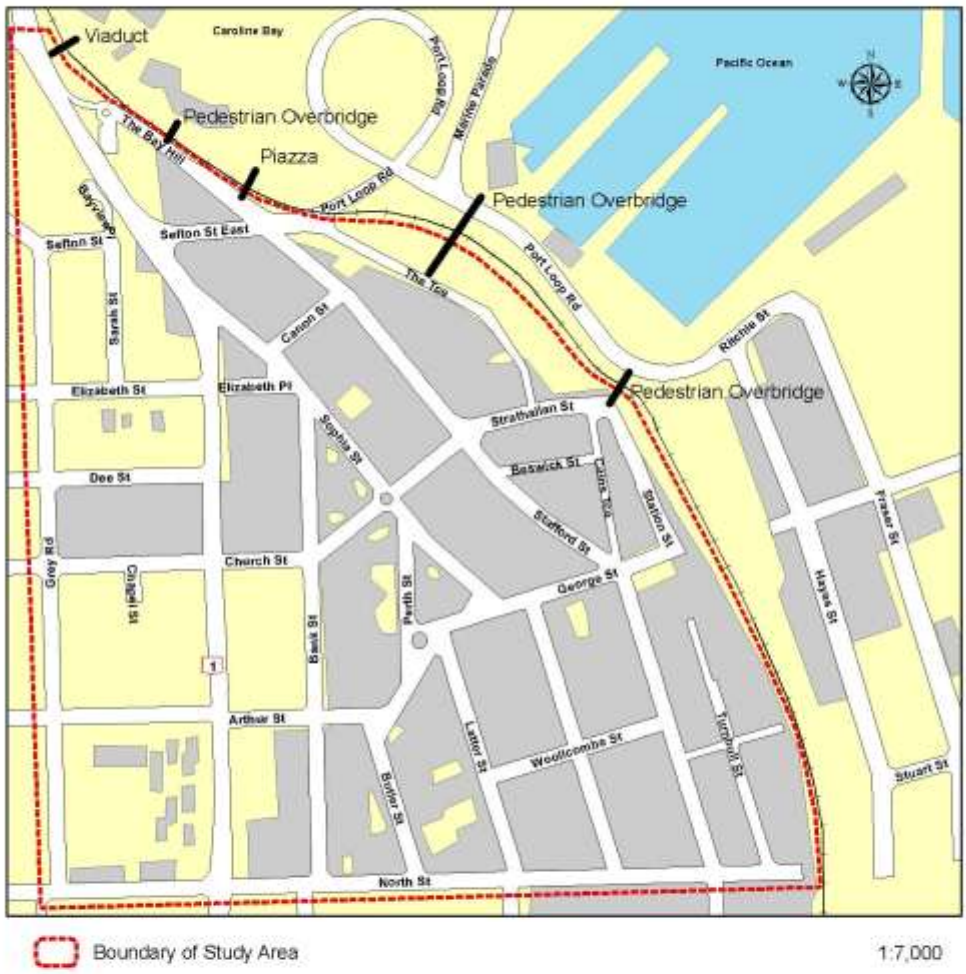

Figure 3.1 The study area

Characteristics	Definition	Benefits
Connected	The extent to which the pedestrian network or route links to key trip origins and destinations, as well as the extent of linkages between different routes on the network	People can walk from one place to another without encountering major obstacles, obstruction or severance
Convivial	The extent to which walking is a pleasant activity, in terms of interaction with people, the built and natural environment, and other road users	Pedestrian routes are friendly and attractive, and are perceived as such by pedestrians
Conspicuous	The extent to which walking routes and public spaces feel safe and inviting for pedestrians	Suitable levels of lighting, visibility and surveillance over its entire length, with high quality delineation and signage
Comfortable	The extent to which walking is accommodated for all types of pedestrian within the transport corridor	High quality and well-maintained footpaths of suitable widths, attractive landscaping and architecture, shelter and rest places and a suitable allocation of roadspace to pedestrians
Convenient	The extent to which walking is able to compete with other modes of transport in terms of efficiency (in time, money and space)	Walking is a realistic travel choice, partly because of the impact of the other criteria set out above, but also because walking routes are of a suitable length as a result of land use planning, with minimal delays

Figure 3.2 The '5 Cs' evaluation of the walking environment

public space enhancements and the infrastructure required to facilitate the development of a high quality walking environment.

As it is, the inclusion of a street in the overall pedestrian network does not imply that that it is either 'safe' or fit for purpose.

3.3 The need to identify the location of 'gateways'

Unimpeded walking access to the CBD is critical for its economic health. If it is difficult to cross roads to get into the core, people may feel that they have to drive to go shopping. They are then no longer tied to their local centre and could just as easily go somewhere else, such as as to shopping opportunities in suburban areas.

Access points ('gateways') should seamlessly connect the cyclist and pedestrian networks inside and outside the CBD. Through their design, they should show clearly that the traveller is entering the CBD, a place where different standards of travel behaviour and activity are normally expected. Design elements may include lighting, signs identifying the city, textured surfaces, vegetation, landscaping, tree planting and other elements to enhance the entry experience.

Gateways are an opportunity to make sure that the visitor can quickly find out where they need to be and how to get there – trouble free. They should make a visitor feel good from the outset, so that they will feel more comfortable and kindly disposed towards the city from then on. And hopefully they will tell their friends what a nice time they had there. For all of these roles, signage is critical.

Until a full pedestrian audit is undertaken, it is impossible to identify the principal gateways to the CBD. There are many access points, but not all of these would carry significant volumes of pedestrians. Sensible resource allocation dictates that the provision of gateways be limited to a few significant locations. It is thus vital that the gateways to Timaru CBD are identified and audited. It is recommended that this takes place as part of a wider pedestrian strategy for Timaru, allowing signage and other interventions to be rolled out from the CBD.

Figure 3.2 Some examples of gateways, clockwise from top left, in Bristol, UK; Bilbao, Spain; Preston, UK; and Buxtehude, Germany

4. PEDESTRIAN INFORMATION AND SIGNAGE

4.1 Existing signage

4.1.1 Wayfinding

There is virtually no wayfinding signage in Timaru CBD for pedestrians, though there are some directional signs for drivers. There are no aids to finding the shops or civic services: visitors would most likely be completely lost. Overall, it would be fair to say that Timaru is almost completely illegible for the first-time or occasional visitor. This means that many destinations may not be found, or that exploration will be done mainly by car. If the intention is to maintain the economic importance of Timaru's CBD, then improved pedestrian wayfinding is key, as this will increase visitation to destinations, reduce vehicle traffic and improve the environment for both visitors and residents.

It is also worth observing that there are also no signs at all for cycle routes, or towards cycle destinations or parking. An opportunity to welcome cyclists to the town, perhaps to spend some time and money, is thus being lost.

4.1.2 Street name signage

There is very little point in providing information such as maps and directional signs for pedestrians if the nameplates on the streets themselves are in any way inadequate in number, position or legibility. In Timaru there are some locations where pairs of street names are easily visible, but in general the existing street name signage in the CBD is extremely poor:

- Most signage that currently exists appears to be designed for car drivers – it is high up on poles and not easily visible to pedestrians and people with disabilities such as poor eyesight, or those confined to wheelchairs
- It is of limited quantity, so that in many places at junctions it is extremely difficult to see any signs at all from the footpath (for example, the Stafford Street/George Street intersection, one of the most important nodes for pedestrians in Timaru)
- It is not consistent in location vis-à-vis other elements of the street

4.2 Legibility principles

4.2.1 Introduction

This Report will now consider what signs are required and where they should be located. First, however, it is necessary to appreciate the principles of pedestrian signage provision, so that provision in Timaru will be appropriate and cost-effective. These principles have been derived from research across a variety of publications and websites listed in Appendix 8. One of the most useful was *Legible London: a wayfinding study* (2006).

It is clear that many journeys are 'walkable' – but how many more people could be persuaded to walk, merely through better information? A study by Research Business

International (2002) found that 66 per cent of travellers – and 80 per cent of tourists - said they would consider walking instead, after being shown a walking map.

4.2.2 Putting the needs of walkers first

The road maps designed for drivers are not reliable references for assessing the walk involved. It is necessary therefore to look at what is required first from the walker's point of view.

Two fundamental principles in meeting walkers' needs are:

- A walking map should be for walkers, not a road map overlaid with walkers' information
- If it works for the first-time user – then it will work for everyone

Putting the needs of walkers first requires that we appreciate the many different kinds of (potential) walkers: tourists, locals, visitors and customers. Their needs (and the needs of those who benefit from their custom) are met haphazardly at present. Instead, there needs to be a focus on core principles. For example, all kinds of walkers want to:

- Know where to look for wayfinding information when they need it
- Understand the way in which the information is communicated
- Obtain the information they want quickly, intuitively and without fuss

From the City's perspective, there may be a need to:

- Promote/direct people to a particular destination
- Promote the character/identity of the local area
- Reduce street clutter
- Reinforce awareness of the city

In sum, it is in everyone's interest to make the walker's experience a positive one.

4.2.3 Information you can trust

Reliability is a key factor in encouraging walking. Without signage for pedestrians, reliability favours the car and bus. Without signage, we cannot reliably judge how long a walking journey will take. We cannot trust that there will be sufficient signage along the way so that we won't get lost. If we rectify these problems, then – for manageable journeys – the reliability factor starts to favour the pedestrian, because walking journey times are always reliable, whereas the bus and car can suffer delays.

4.2.4 A coherent wayfinding system

Navigational strategies used by pedestrians include a mix of planning (often with maps) and doing (walking along deciphering the street and looking for markers). In other words, signage is not the only means people use to find their way from A to B. Landmarks, public art, lighting and urban landscaping all play their part in encouraging legibility and defining a city's key characteristics. Street layouts, geometries and route hierarchies should ideally make the street environment self-explanatory to all users and communicate messages about correct behaviour without the need for signing.

Nevertheless, many studies confirm that street signage is a key component of the wayfinding system. It will be the focus of the paragraphs below.

4.3 Street wayfinding signage

4.3.1 Types of signs

The *Draft New Zealand Pedestrian Facilities Network Design Guide (2004)* comments that:

> *"Due to the lack of directional signs for pedestrians in MOTSAM (Manual of Traffic Signs and Markings), a variety of non-standard signs has been developed. No clear guidance is currently available concerning which types of sign to use under particular circumstances."*

It goes on to list four types of Non-Standard Pedestrian Signing: these are described below.

- **Fingerpost**
  These are thin, directional signs bearing the name of a major trip destination and pointing in the direction in which to walk to reach it. They have a number of advantages:
  - Fingerposts to different destinations can be clustered together
  - Additional destinations can easily be added subsequently
  - They provide positive directions
  - They are intuitive for users
  - They can be seen over 360 degrees
  - Confirmatory signs can be of an identical type

Figure 4.1 Fingerpost signs in The Hague, Netherlands

- **Information board**
  These are upright 'monoliths' that list key destinations each with associated arrows showing the direction to walk. The advantages of these include:
  - Their greater physical area allows for more destinations and use of symbols
  - Information can be displayed at head height, in the 'natural' line of vision
  - They are more vandal resistant
  - They can incorporate 'real time' information
  - They are easily lit

Figure 4.2 Information board, Southern Cross Station, Melbourne

- **Maps** (which can be used independently or on information boards)
  Signs that use maps have certain advantages over other types of signage:
  - Maps show many more routes and destinations compared to a finger post, encouraging far more walking. For example, maps can show a five minute walking circle for all streets
  - Maps provide different types of route finding information instead of just the names on finger posts, for example by providing 3D pictures of landmark buildings that are key components in legibility and route finding. This could help overseas visitors who are less familiar with English, the visually impaired, etc. This should also encourage more walking
  - Using heads-up map-based signs (i.e. the maps face the same way as the viewer) is a more intuitive system that can improve wayfinding and so encourage walking. "Where you are is what you see" is a key principle of these systems
  - Map-based signs have reduced street clutter in Bristol, UK and the City of London. Bristol installed 180 map-based signs and removed over 300 fingerposts and other street clutter, a 40 per cent reduction in street furniture
  - Map-based signs have greater potential for absorbing street clutter as they could be designed to incorporate street lights, litter bins, etc

- Map-based signs can be more reliable than fingerposts as they do not have fingers that can be easily ripped off or rotated
- Maps can be combined with information boards and fingerposts
- Paper maps behind transparent protection can be updated quickly, easily and cheaply

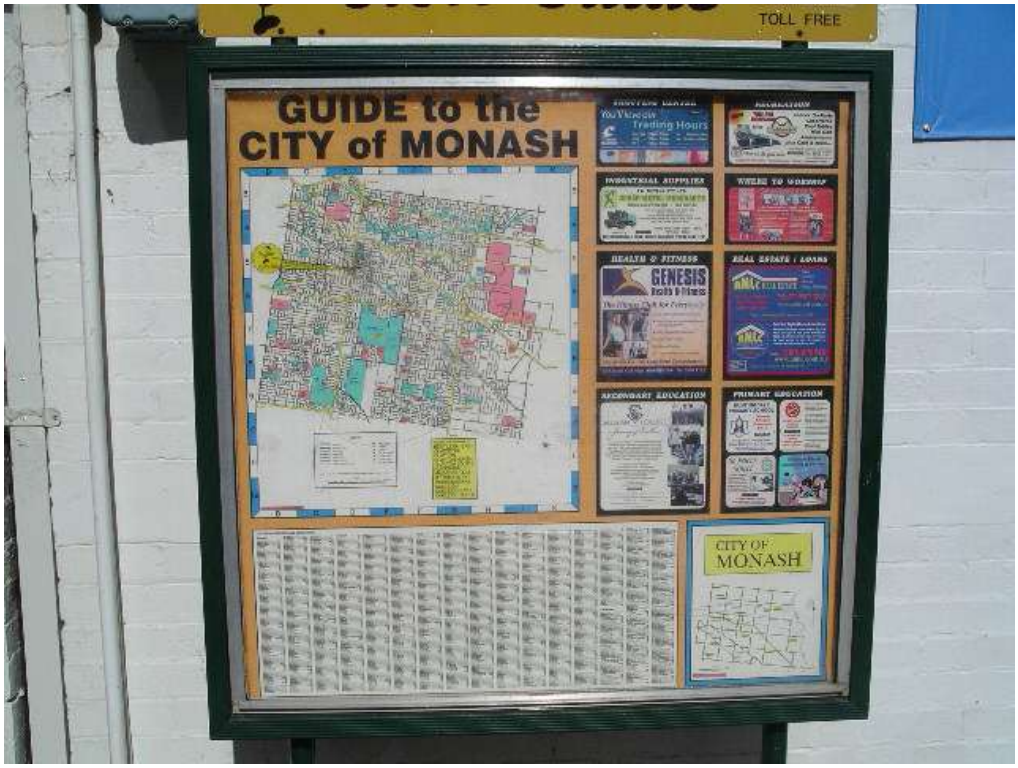

Figure 4.3 Civic Guide Map, Monash, Victoria

- **Trails**
  These are markings (such as metal studs, coloured or solar-lit tiles or painted markings) set directly in the footpath, which are followed by pedestrians to reach their destination. Their advantages include:
  - They are intuitive to follow
  - 'Bread-crumb' trails can be used to navigate very difficult 'dog-leg' routes
  - They can be used to show 'walks' around an area, not just destinations
  - They are easily comprehended by the majority of pedestrians
  - They are quick to install
  - They are very difficult to vandalise
  - They can be installed temporarily (for short-term routes to a destination, such as an event)

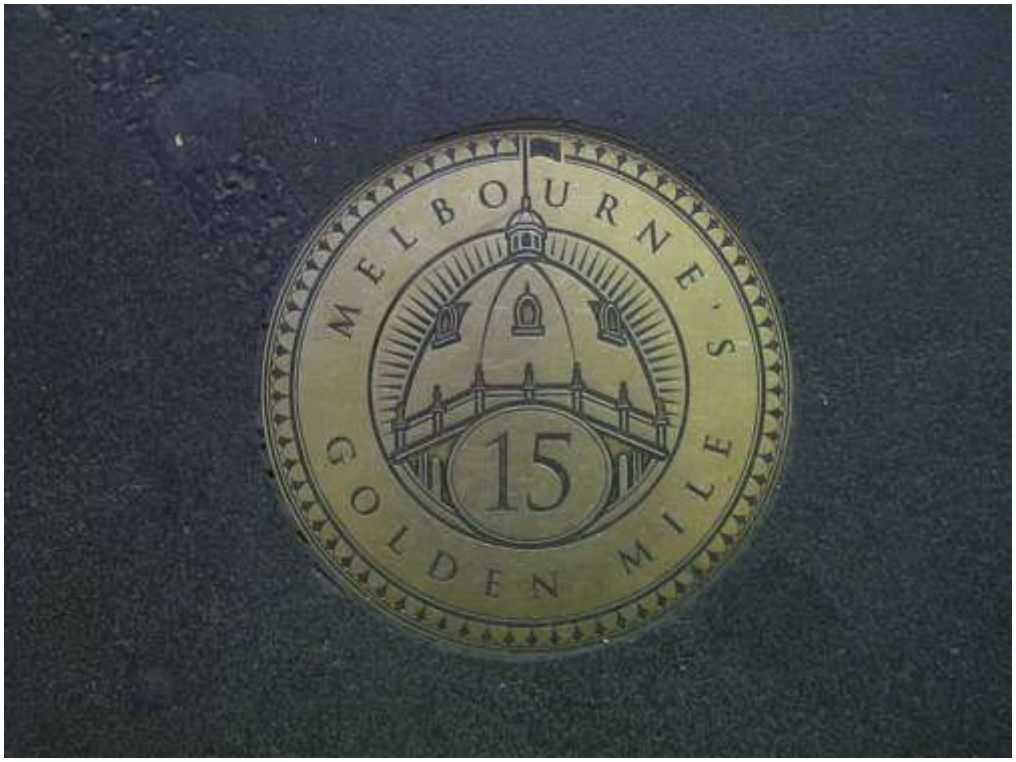

Figure 4.4 Trail marker in the footpath, Melbourne CBD

- **Overview**
  A pedestrian encountering one type of sign is likely to seek signs of a similar style at other points on their journey. Consequently, the strategy should employ as few of the different types of signs as possible and sign face designs, colours, and mounting height should be consistent. This approach also assists in minimising installation, maintenance and replacement costs.

4.3.3 Sign location within the pedestrian network

Coherent information along all parts of the journey is a key requirement for encouraging walking. A signing strategy should be based on locating signs at 'decision points' on the pedestrian network, specifically:

- Trip origins, that is, where people join the pedestrian network such as transport interchanges/stops, car parks and park and ride sites
- Pedestrian trip destinations - once the visit has been made to that location, it will become a trip origin either to another destination or back to the original origin (e.g. the public transport stop). Examples include tourist attractions, community facilities, sporting venues and retail areas
- Locations where there is possible ambiguity in the route, including major junctions and open areas
- On long routes where pedestrians may be uncertain that they have chosen the correct direction and confirmation is required

4.3.4 Frequency

A certain frequency of signs is required for the system to work. It is critical that the signs are located where they are needed, using the principle 'as few as possible, as many as necessary'. There's nothing worse than following a sign and then being abandoned at a key junction halfway through the walk. Therefore consistent and predictable positioning of signs is essential, with sufficient flexibility to fit in with local circumstances. Procedures are required to ensure that this is correctly and intelligently achieved. It is important to get the right balance between effective placement of walking signs and cluttering up the streets.

4.3.5 Progressive disclosure

The 1963 methodology for the placement of UK road signs, which uses the principle of 'progressive disclosure' of information (telling people what they need to know when they need to know it), is still effective forty years later. Information design and usability have been the guiding principles in the development of this system.

There are potentially a very large number of destinations that could be included on signs and potential information overload can be avoided by following the progressive disclosure rule. For example, in cases where there are a large number of destinations placed close together it is good practice to agree on a generic label, such as "town centre" or "recreation facilities" and only mention individual destinations when a decision-point is reached and the pedestrian needs to have more precise directions. This avoids the clutter that results from listing all of the destinations on separate finger signs, all pointing in the same direction, on one post.

Of course, once a destination appears on a sign, it must continue to be signed at every subsequent decision point until the destination is reached. There must be no 'falling off the edge'.

An established convention is to exclude private sector buildings, since their susceptibility to change of use or name can quickly make signage obsolete. Exceptions can be made of course, for example where the building is particularly well known or is an historic or landmark structure.

4.3.6 Siting signs

There is no common standard for exactly where in the street signs should be positioned. In contrast, road signs for motor vehicles have resolved all of these issues decades ago.

The introduction of a coherent system will tidy up the street environment by replacing inconsistent interventions with a coordinated range of useful street furniture. At present in most cities, there is little consistency in the placement of signs in any given location. Clear guidelines need to be developed for sign height, pavement location, fixing and so forth.

The *Draft New Zealand Pedestrian Facilities Network Design Guide* provides this advice on siting signs:

"Sign faces should be sited within the normal field of vision for their proposed user. For signs which are intended to be viewed at close range, mounting them between 0.9 and 1.5m above the ground provides the most appropriate compromise for those seated and standing. This may be done through mounting them on walls or other structures.

Other important issues to consider for siting signs are that:

- *Sign faces are most easily read if they are perpendicular to the direction of travel. Where this is not possible the approach angle should be within 30 degrees*
- *The immediate area around each sign should be level, even, well-lit and accessible for those with mobility impairments*
- *Signs should not themselves become an obstacle or hazard for pedestrians so they must comply with criteria for protrusions. Free-standing signs should not be placed in the through route*
- *Pedestrians reading the sign should not become an obstruction for other pedestrians, or inadvertently place themselves or other road users in danger"*

4.3.7 Lighting of signs

Existing lighting may not be sufficiently bright to enable pedestrians to use some signs after dark. However, the installation of new or improved lighting to illuminate signs may not be justified, as all lighting has cost implications in installation, maintenance and operation. Using solar technology is feasible for some applications, but will affect the shape of the product, as it needs a large top surface to accommodate photocells and sufficient space to contain the batteries.

4.3.8 Quality and maintenance

Enduring quality is important if products are to give a positive reflection of context. Materials that are robust and stand the test of time contribute to a product appearing in a good state of repair for a much greater percentage of its life. High quality materials, although necessitating higher capital expenditure, can also deliver value through much longer replacement cycles and lower day-to-day maintenance costs.

The perceived quality, maintenance and newness of a piece of street furniture affects its functionality. This has a special relevance to signage. If the user is to believe that the information being communicated is relevant then they have first to decide that it is current. A badly maintained sign that appears to be neglected can never instil this confidence. Quality of materials and design alone are not enough: maintenance and ownership is important too.

More detail is provided on design and maintenance in Appendix 3.

4.3.9 Reducing clutter

Reducing clutter is one of the major benefits that can be achieved by introducing a

coherent pedestrian sign system, especially using map-based signs. The idea is to replace inconsistent and untidy elements with a useful, coherent, managed and respected system. The street environment will benefit in various ways:

- Consistent look and placement creates a tidier streetscape
- The overall number of signs can be reduced
- A managed signage system reduces vandalism and makes it easier to combat

4.4 Best practice in wayfinding signage

For this Report, specific signage systems were examined in Exeter, Newcastle, London and Bristol in the UK. The Bristol approach is widely regarded as world best practice and was thus studied in some detail. This appraisal appears as Appendix 4.

In recent years, cities in Australia have adopted signage strategies based on the Bristol approach, but modified to suit their circumstances. It was felt relevant to this Report to examine the systems adopted in Bendigo (Appendix 5), Melbourne (Appendix 6) and Port Phillip (Appendix 7).

4.5 Street name signs

Good street name signage is essential so that people can locate themselves and use the street names to navigate. In a recent report on wayfinding in the City of Bendigo the adoption of a "street name signage standard" was recommended:

> *"Every intersection should have 2 pairs of street name signs, correctly oriented to the streets, at no more than 2m from the ground, installed on poles as close to the intersection as possible".*
> Source: *Bendigo CBD: A wayfinding strategy and walkability report*, J.A.Grant and Associates, October 2006

Though it may be difficult to achieve in practice, the location of street name signing on buildings, boundary walls or other street furniture, rather than on dedicated posts can be considered. This would assist in simplifying the streetscape as well as reducing potential hazards to blind and partially sighted people. A recommendation to this effect for Timaru is one outcome of this report.

5. PROPOSED SIGNAGE SYSTEM FOR TIMARU

5.1 Selection of signs for Timaru

5.1.1 Use of the Bristol model

Based on the consideration of the signage principles outlined above and of the nature of signage systems recommended and installed in various cities, it seems most practical to recommend a wayfinding system based on the Bristol Legible City sign family. However, this does not have to be rigidly applied, particularly for two reasons:

- The Bristol project area is very large whereas that of Timaru is very small in comparison. This will affect the number, size and type of signs used
- The Bristol signs are part of a broad, high-budget legibility project, in which the use of high quality materials was felt to be paramount. In Timaru there is no such obligation and it may be felt that more flexible, lower cost signs and materials may be used with equal effect

5.1.2 Proposed wayfinding sign family for Timaru

The proposed sign family for Timaru is thus based on the Bristol model (as illustrated in Appendix 4) as follows:

- The Full Area Map covers the whole area to be signed
- The Information Panels cover areas in front of the viewer
- The Area Reference Map used in Bristol is not applicable in Timaru's small Centre
- The Title and Branding can give a title to the map – such as "George Street"
- When attached to Information Panels, the Direction Signs point to important off panel destinations
- Independent Directional Signs point to important destinations. However, it is not envisaged that these will be recommended in Timaru CBD

5.1.3 The importance of using walking times

The graphic design of the maps and signs to be used in Timaru is not part of the Brief for this Report. Nevertheless, it is helpful to bear in mind that one of the most valuable features of the original Bristol legibility system was the use of a four-minute walking contour on the maps. People walk at around 80 metres a minute, so each map covers an area of approximately 500 metres square, 300 metres to the sides of the viewing point and 500 metres in front. It is strongly recommended that this feature is retained in the maps and panels in Timaru. Moreover, research has shown that journey time is a more important factor than distance when it comes to deciding whether to walk, with, for example, 75 per cent of respondents in a London survey describing a journey in minutes, rather than metres or miles. There is thus a strong argument that walking times should feature on all directional signs too.

5.1.4 Conventions adopted

The following conventions have been adopted with respect to wayfinding sign content:

- Every destination should appear on the Full Area Map
- The majority of the destinations will appear on at least one of the Information Panels
- When a destination appears on an Information Panel it is not separately signed on the Direction Signs attached to that Panel. Only important off-panel destinations are signed
- Directional Signs should guide users along the shortest footpath route, although for some destinations this will be round two sides of a block

5.1.5 Options for signage installation

Because of the potential variety of types of maps, signs, panels and street name signs that could be used, together with a great range of potential locations at which they could be installed, it is sensible in this Report to recommend a series of signage packages that could be adopted. The Full Specification Option (or FSO) comprises the full range of installations, whilst Lower Specification Options (LSOs) successively describe packages with more restricted ranges of sign types and locational choices.

5.2 Full Cost Option for location, design and orientation of signs in the CBD

5.2.1 The Full Area Map

As part of the process of producing the signage materials for Timaru, a 'Master Walking Map' needs to be produced (See the Bristol example in Appendix 4). From this all of the Panel Maps can be derived. It would be cost-effective to use this map at one location, immediately outside the Visitor Information Centre, mounted on a one-sided panel. The map would cover most of the CBD and its gateways, with a radius of more than 400 metres. Walking time contours would be superimposed on the map.

The production of this map would present an opportunity for a paper-based version of it to be distributed widely, free, for visitors to the city. The most obvious place for the map to be obtained would be the Visitor Information Centre, but it is important to make it available throughout the city, perhaps in dairies, corner stores and kiosks, hotels and also in public buildings such as the Library and Council Offices.

5.2.2 Information Panels and Direction Signs

These are described below and then summarized in Table 5.1 They fall into two groups:

- 16 Information Panels (IPs) at entrance points to the CBD
- 4 IPs at the entrance to the heart of the commercial/retail Activity Centre

Unless indicated otherwise, these would be single-sided panels, with the heads-up panel display showing the Centre. All single-sided panels would have Direction Signs attached, indicating attractions (to be specified later) lying in the opposite direction to the Centre. The precise location on the footpath depends on the results of a later audit of physical conditions and existing infrastructure at the site.

IP1 would be sited at the intersection of Stafford St and North St. It would be orientated E-W and show the area to the north. It would serve people entering the CBD from residential areas to the south.

IPs 2 - 4 would be sited at the intersections of North St with Latter St, (IP2), Butler St (IP3) and Bank St (IP4). They would be orientated E-W and show the area to the north. They would serve people entering the CBD from residential areas to the south.

IPs 5 - 10 would be located on Grey Rd at the intersections with North St (IP5), Arthur St (IP6), Church St (IP7), Dee St (IP8), Elizabeth St (IP9) and Sefton St (IP10). They would be orientated N-S and would help people coming from residential areas, car parks and community facilities to the west.

IP11 would be located on the east side of Highway 1 just south of the Sefton St East junction. It would be orientated NE-SW and assist those arriving from the north.

IP12 would be sited to the SE of the pedestrian underpass beneath the railway, to the north of the Bay Hill. The panel would be orientated NE-SW. It would inform people coming from residential areas to the north and north-west, and also those walking from the north end of the Caroline Bay foreshore and park.

IP13 would be on the Piazza and would be orientated E-W. It would be double sided, with the side showing the area to the south covering the CBD and the side showing the north depicting the Caroline Bay area.

IP14 would be located at the west end of the pedestrian overbridge on the Terrace. It would be orientated NW-SE and would be double sided, to show the CBD to those entering from Caroline Bay, and vice-versa.

IP15 would be sited at the west end of the pedestrian overbridge on Station St at Strathallan St. It would be orientated NW-SE.

IP16 would be located outside the former station building and orientated N-S with its heads-up map showing the area to the west.

IPs17 -20 would ring the heart of the Activity Centre in the CBD. They would be located at the intersections of Strathallan St and Stafford St (IP17); Sophia St with Strathallan St and Perth St (IP18); Perth St with Latter St and George St (IP19); and George St with Stafford St (IP20). The precise orientation of these panels will depend on their exact location at these complex junctions. However, all would be double sided, with the intention of showing the heart of the retail Activity Centre on one side and the appropriate area of the rest of the CBD on the other.

5.2.3 Independent Directional Signs

No Independent Directional Signs are recommended.

Information Panel	Location of Panel	Orientation of Panel	Direction of 'top' of map	Direction of Direction Signs	Off-panel destinations to be signed
IP1	North St/Stafford St	E-W, one-sided	N	S	tbc
IP2	North St/Latter St	E-W, one-sided	N	S	tbc
IP3	North St/Butler St	E-W, one-sided	N	S	tbc
IP4	North St/Bank St	E-W, one-sided	N	S	tbc
IP5	North St/Grey Rd	N-S, one-sided	E	W	tbc
IP6	Grey Rd/Arthur St	N-S, one-sided	E	W	tbc
IP7	Grey Rd/Church St	N-S, one-sided	E	W	tbc
IP8	Grey Rd/Dee St	N-S, one-sided	E	W	tbc
IP9	Grey Rd/Elizabeth St	N-S, one-sided	E	W	tbc
IP10	Grey Rd/Sefton St	N-S, one-sided	E	W	tbc
IP11	Highway 1/Sefton St	NE-SW, one-sided	SE	NW	tbc
IP12	SE of pedestrian underpass, Bay Hill	NE-SW, one-sided	SE	NW	tbc
IP13	Piazza	E-W	2-sided, one S and one N	none	n/a
IP14	On Terrace at W end of overbridge	NW-SE	2 sided, one NE, one SW	none	n/a
IP15	On Station St at W end of overbridge	NW-SE, one-sided	SW	NE	tbc
IP16	Outside former station	N-S, one-sided	W	E	tbc
IP17	Strathallan St/ Stafford St	tbc	2-sided, orientation tbc	none	tbc
IP18	Sophia St/ Strathallan St/ Perth St	tbc	2-sided, orientation tbc	none	tbc
IP19	Perth St/Latter St/ George St	tbc	2-sided, orientation tbc	none	tbc
IP20	George St/ Stafford St	tbc	2-sided, orientation tbc	none	tbc

tbc = to be confirmed

Table 5.1 Location, design and orientation of Information Panels and Direction Signs

5.2.4 Street name signage

It is necessary to identify each street properly with a conspicuous sign easily read by pedestrians. The Bendigo standard outlined in 4.5 above could be followed. If all corners of a four-way intersection were signed, so that signs can be easily seen whatever the direction of approach, eight signs would be visible.

However, if the Council wished to upgrade its litter bins at the same time as improving signage, a new opportunity would present itself. This would involve placing new square bins on street corners and then providing street name signs on the four sides of the new bins, so that the signs are at pedestrian/wheelchair level and would be easily visible to pedestrians approaching from any direction.

It is recommended that serious consideration be given to adopting this style of street name signage.

Full coverage would be provided by placing two, three or four bins (depending on the geometry of the junction), on diagonally opposite corners. Bins should be sited as close as possible to the street corner. Street name signs should be located on the appropriate number of sides of these bins. Thus for a four-way junction, four bins would be installed with 16 street name signs attached (see Figure 5.1).

Figure 5.1 Street name signs on litter bins on a four way intersection. Four bins are present, three of which are pictured (City of Port Phillip, Victoria)

For the Full Specification Option, it is recommended that such Street Name Signage (SNS) be installed in the heart of the CBD, in the area bounded by (and including) Strathallan St, Church St, Perth St, George St and Station St. The SNS locations would be as follows:

SNS1 Station Street/Strathallan St and Cairns Terrace
SNS2 Strathallan St and The Terrace
SNS3 Strathallan St, Stafford St and Church St
SNS4 Church St and Sophia St/Perth St
SNS5 Perth St and King George Place
SNS6 Sophia St and George St
SNS7 George St, Stafford St and Cairns Terrace
SNS8 George St and Station St
SNS9 Cairns Terrace and Beswick St
SNS10 Beswick St and Stafford St
SNS11 Stafford St and Royal Arcade
SNS10 Sophia St and Royal Arcade

If this approach towards street name signage in the heart of the CBD is considered to be successful, it could subsequently be rolled out to the remainder of the area.

5.2.5 Full specification option

The total amount of signage recommended for the CBD in the Full Specification Option (FSO) would thus be:

- 1 Full Area Map
- 20 Information Panels, 6 of which are 2-sided, therefore 26 panels in total
- 20-40 litter bins and 80-160 street name signs (i.e. 10 junctions with a minimum of two bins each and a maximum of 4)
- Additionally, free paper maps would be available

5.3 Lower Specification Options

If it is desired to install a simpler specification, then the following options could be considered.

5.3.1 Lower Specification Option 1 (LSO1)

This option maintains the geographical coverage, but replaces many panels with a simpler, cheaper option. LSO1 would be as for FSO, but would:

- Omit IP1- IP12 and IP14 -16, leaving just one ‘peripheral’ panel IP13 at the Piazza, together with the 4 central area panels IP17 - 20
- Replace IP1 - IP12 and IP14 -16 with a pair of litter bins. These would not only have Street Name Signs, but also would have appropriate directional information and walking times as used in Port Phillip and illustrated in Figure 5.2

LSO1 thus recommends 1 Full Area Map, 5 Panels (10 sides), 50 - 70 bins and 200 - 280 Street Name Signs. Additionally, free paper maps would be available.

5.3.2 Lower Specification Option 2 (LSO2)

This option reduces the coverage to just the Activity Centre and the Piazza. LSO2 would be as for FSO, but omit IP1 - IP12 and IP14 - 16 and would not replace them with litter bins.

LSO2 thus recommends 1 Full Area Map, 5 Panels (10 sides), 20 - 40 litter bins and 80 - 160 street name signs, with free paper maps available.

5.3.3 Lower Specification Option 3 (LSO3)

This option reduces both the range of coverage and the level of sophistication. It is as for FSO, but omits:

- Production of a Master Map
- Full Area Map at the Visitor Information Centre
- All free paper maps
- All remaining IPs (IP13 and IPs17 - 20)

LSO3 thus recommends only 20 - 40 litter bins and 80 - 160 street name signs. As there would be no wayfinding signage in this option, the opportunity could be taken to include directional information and walking times as recommended for LSO1

Figure 5.2 City of Port Phillip litter bin with street name signs and directional information and walking times

5.3.4 Other options

Depending on budgetary constraints, other options could be devised that would combine the various elements above in different ways. However, if any of the lower specification options is chosen, it is important to be aware that some of the following principles may be compromised.

- Maps and map-based signs are necessary for an integrated signage and information strategy
- Maps can show the location of seats, toilets and other street furniture which enhance the pedestrian experience. This is much more difficult to do with directional signs.
- Walking is an important ally for public transport, delivering to it many of its passengers. Potential riders are much more easily fully informed about the location of bus stops through good quality maps than through directional signage
- Map-based signs absorb more street clutter as they can incorporate other elements
- Walking times and arrows may help people to wayfind, but they do not help the Centre to be legible and they do not allow people to develop their own mental maps, which are vital in encouraging people to explore and enjoy the area

It is also useful to note that if no Full Area Map is used, then it would not be worth the expense of producing one solely for free paper-copy distribution to the public

5.4 Other considerations

5.4.1 Areas outside the CBD

If it was desired to increase the 'visibility' of the CBD from surrounding residential areas, then litter bins with directional information (and walking times) could be installed in appropriate locations.

5.4.2 Removing clutter

One of the advantages of a signage strategy usually is the opportunity to remove old, mismatching, badly maintained and inaccurate signs and thus achieve a unified, uncluttered streetscape. In Timaru's case, there are hardly any signs in existence and so this situation does not arise. However, if any of the options involving the installation of new litter bins is adopted, then this could form the basis of an audit (and rationalisation) of existing litter bin provision, or better still, of street furniture generally.

5.4.3 Auditing the impacts of signage infrastructure installation

It may be advisable for the likely outcome of these recommendations to be audited from the perspectives of traffic movement and visibility; streetworks and maintenance; liability; and the urban design impacts. None of these have been explicitly considered in this Report.

6. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

6.1.1 All of the streets in the CBD should be thought of as part of the 'pedestrian network'

6.1.2 The inclusion of a route in the overall pedestrian network does not imply that that it is currently either 'safe' or fit for purpose

6.1.3 There is virtually no wayfinding signage in Timaru CBD for pedestrians

6.1.4 Street name signage is of low standard and limited quantity

6.2 Recommendations

6.2.1 A sign family is proposed for Timaru. This is based on world best practice initiated by Bristol UK, but recognising refinements made in Bendigo, Melbourne and Port Phillip

6.2.2 Recommendations are made for the location, orientation, style and content of signs across the CBD

6.2.3 A full specification suite of signs is recommended as are lower specification alternatives. It is possible and acceptable to combine different elements according to budget, though this must be done without undermining the coherence and integrity of the signage system

6.2.4 It is strongly recommended that walking times are incorporated in the signage adopted

6.2.5 As part of the process of producing the signage materials for Timaru, a 'Master Walking Map' needs to be produced

6.2.6 A paper copy of the 'Master Walking Map' should be distributed widely, free, for visitors to the town

6.2.7 It is recommended that street name signage be installed in the centre of the CBD, in the area bounded by (and including) Strathallan St, Church St, Perth St, George St and Station St.

6.2.8 It is recommended that serious consideration be given to installing a suite of custom-made litter bins that can incorporate street name signs

6.2.9 The installation of new signage elements should be accompanied by removal of old signage and other street clutter

6.2.10 It may be advisable for the likely outcome of these recommendations to be audited from the perspectives of traffic movement and visibility; streetworks and maintenance; liability; and the urban design impacts. None of these have been explicitly considered in this Report

6.2.11 If it was desired to increase the 'visibility' of the CBD from surrounding residential areas, then litter bins with directional information (and walking times) could be installed in appropriate locations.

6.3 A Pedestrian Strategy

6.3.1 There is a need for a pedestrian audit of the CBD to take place before installation of signs takes place, to avoid the risk of encouraging pedestrians to use routes that may not be safe. The audit would evaluate connectedness, comfort, conviviality and convenience of the pedestrian environment in the CBD and would also identify and audit the 'gateways' to the CBD.

6.3.2 The signage system and the pedestrian audit should be pulled together into a Pedestrian Strategy for Timaru. This would also contain recommendations for rolling out signage and other improvements to the walking environment to other parts of Timaru beyond the CBD.