

ENCOURAGING AND INCREASING WALKING 2005

A policy document for the City of Yarra

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ACKNOWLEDGEMENTS

Council acknowledges the Wurundjeri community as the first owners of this country. Today, they are still the custodians of the cultural heritage of this land.

Further to this, Council acknowledges there are other Aboriginal and Torres Strait Islander people who have lived, worked and contributed to the cultural heritage of Yarra.

This document has been compiled with the assistance of many people who have attended workshops, filled in questionnaires and attended meetings. Council wishes to thank all those who took part in the Encouraging and Increasing Walking Strategy consultation.

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Abbreviations

DDA	Disability Discrimination Act
DEH	Department of Environment and Heritage
DHS	Department of Human Services
DOI	Department of Infrastructure
DOTRS	Department of Transport and Regional Services
DSE	Department of Sustainability and Environment
DVC	Department of Victorian Communities
EIWS	Encouraging and Increasing Walking Strategy
MSS	Municipal Strategic Statement
GGAP	Greenhouse Gas Abatement Program

FOREWORD

The purpose of the Encouraging and Increasing Walking Strategy (EIWS) is to act as a policy basis for Council officers to make appropriate decisions to effectively encourage and increase walking in the City of Yarra. It also provides information for residents, businesses and visitors regarding the principles behind decisions made by Council relating to the walking environment.

Efforts to encourage and increase walking include support for people who walk; or people who use mobility aids (wheelchairs, walking frames, 'walkers' - combined walking frames and shopping jeeps etc.); or who use prams or pushers for children. Walking is not only a means of transport, it is important as both a means of improving individual health and is a major form of recreation for people of all ages, regardless of their income levels. Many people walk because it is an enjoyable way of using public space. As a result efforts to encourage and increase walking involve improving the amenity of public space and making it attractive to those who need or want to walk.

1. INTRODUCTION – Why have a walking strategy?

The City of Yarra is one of the first municipalities in Melbourne to recognise the importance of local government's role to 'encourage and increase walking'. The City of Yarra has become part of a worldwide movement aimed at improving the environment for pedestrians so that more journeys can be safely and enjoyably made on foot. Walking is the glue that binds the urban fabric together. Almost everyone walks. People with disabilities and walking limitations require the same facilities (or better) as other pedestrians, this includes: good footpaths, good access to public transport and urban spaces, easy access to buildings and activity centres. Parents and carers with prams and young children also require good pedestrian facilities.

Sedentary lifestyles are causing concern amongst health professional and politicians alike. Petrol prices are set to continue to rise making private transport expensive for most people, parking in the inner city is difficult and as more people choose to drive will become even more difficult and costly. The impact from transport and its pollution on the environment is being experienced more keenly through climate change. These factors point towards a need to change behaviour. High levels of pedestrian activity were once associated with low standards of living and unsophisticated economic activity. Today major cities that have world-class pedestrian environments have a high standard of living and quality of life.

Unfortunately the amount of walking in most Australian cities has declined over the past 2-3 decades. As transport planning focused on the needs of the private car, deference was given to provision for the rapidly growing number of cars and walking was neglected in both policy and planning. Council's responsibility is in providing a high-class pedestrian environment to ensure that those people who wish to walk can do so easily and safely.

The Encouraging and Increasing Walking Strategy is not about forcing unrealistic expectations on our population but it is all about choice. There are times when walking trips are appropriate, for example local (under two kilometre) trips for fit and healthy people and there are times when other transport is better suited to a journey e.g. long distances or going to the supermarket for the weekly family shop. Equally there are some trips we make that we may be able to change. For example, the journey to work – if we don't have to carry heavy items for our job or work late at night, can we walk to work or walk to public transport?

The City of Yarra has an excellent structure to enable people to walk, with a predominantly grid street pattern, a high density of activity and numerous good local shopping strips. It also has public transport services within a few hundred metres of most residents and workplaces. The City of Yarra has a high proportion of households without cars (20% of Yarra's dwellings have no car), a more ageing population than the rest of Melbourne, a growing workforce and population and a community that recognises the importance of the quality of the environment. Walking is currently the single most important mode of travel in the City of Yarra. Yarra also has the second highest share of trips made on foot in the Metropolitan area – only the City of Melbourne has more.

Yarra not only provides an exceptional structure for walking for transport, it also has fantastic open space along the Yarra River and through its parks which are well used by recreational walkers. Recreational walking is an important aspect of this strategy as it provides Council with an opportunity to foster health and well being in the community.

Policy in Victoria is changing with the publication of 'Melbourne 2030' (2002) and the 'Metropolitan Transport Plan' (2004). Both of these documents support the view that walking should be encouraged for both local trips and as access to public transport. The State Government also supports walking for health and recreation and has different programs to promote these.

Encouraging and increasing walking will be good for the users of all modes of travel in the City of Yarra. Pedestrians will benefit. The public transport system will benefit, as more people are able to walk more easily to train, tram and bus stops. Fewer cars on local streets will benefit those motorists who still need to drive, as congestion is reduced. Reduced road congestion will make the streets safer for cyclists, who will then be less likely to compete with pedestrians on footpaths or shared routes. Multiple positive impacts can be achieved by encouraging and increasing walking in Yarra.

The reasons that people make the decision to drive are important to this study. It may be that there are a number of barriers preventing them from walking or that it is a choice they have not considered. Removing the physical barriers to walking and actively influencing people's decision to walk (rather than drive) will be major components of this Strategy.

The pedestrians of Yarra are a vital part of the local transport system and in promoting health and well being – as they walk, rather than drive, to many destinations. On this basis alone they deserve a high level of attention, support and provision with excellent pedestrian facilities.

2. EIWS Key Action Areas

In order for Council to focus effectively on encouraging and increasing walking in Yarra, EIWS has identified four key action areas which affect departments across Council. All four action areas contribute equally to improving the walking environment and concentrating on just one of these areas will not bring about increased rates of walking.

1	The continued improvement of internal co-operation within Council, so that the interests of pedestrians are supported across all Council Departments
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Many projects and programs require the co-ordination of effort of a number of Departments so that innovations (such as the production of good pedestrian-focused maps) can be implemented.

2	New hardware and infrastructure
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This includes items such as pedestrian signage, raised footpaths, improved access crossings and new pedestrian crossing facilities. Where possible Council should slow traffic speed and reduce traffic volume, using a range of measures (identified in the Implementation Section).

3	The promotion of behaviour change programs across Yarra
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Behaviour change programs include School Travel Planning together with the Walking School Bus, Green Travel Plans for businesses and the development of walking groups or clubs.

4	Continue to develop and strengthen land use and transport policies that lead to an improvement of the walking environment as new development takes place
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Ensure that there is integration across all Council policies and strategies to ensure pedestrian considerations are included.

3. THE EIWS PROJECT

3.1 The City of Yarra Policy Context

The City of Yarra recognised the relevance of planning for pedestrians in the Yarra Environment Strategy 2000. The Strategic Goal of the Transport and Access element of the Environment Strategy is: 'to reduce dependence on private transport and promote alternatives transport options'. The Environment Strategy goes on to note the potential importance of substituting walk trips for short car trips.

Council's policy position on walking has been reinforced in the '2005-2009 Council Plan'. In the Council Plan a number of Strategies support or are complemented and improved by encouraging and increasing walking in Yarra. For example, BF01 'Pedestrian amenity' is to *'Improve pedestrian amenity and encourage walking'*; BF02 'Sustainable transport' is to *'Increase the choice and quality of transport modes and infrastructure'*.

Other strategies which will directly benefit from a focus on encouraging and increasing walking are:

- CO01 'Responsible asset management' – this includes managing and planning for assets which meet the needs of current and future generations. EIWS would directly affect programs to improve seating, signage and toilet facilities that are needed to promote walking.
- CO11 'Risk management' – EIWS recommends improving footpaths and access ramps which will mean there is less chance of trips and slips from poor infrastructure.
- PCN02 'Families and children' – by providing programs for children, such as the walking school bus, healthy active lifestyle behaviour is in place to develop into adulthood.
- PCN03 'Neighbourhood houses' – by promoting walking for recreation programs in Neighbourhood Houses goals of social inclusion plus health and well being can be addressed.
- PCN05 'Older people' – this strategy focuses on increasing opportunities for older people to participate in community life. Walking programs can not only provide an opportunity for participation but also to maintain health and fitness.
- PCN06 'Neighbourhood planning' – this strategy addresses need on a neighbourhood level and will benefit from some of the EIWS recommendations re infrastructure e.g. signage, seating, toilets and also social applications of walking groups across all age groups.
- PCN07 'Health and well being' – undertaking a holistic approach to health and well being issues includes adopting actions such as promoting walking which encourage less sedentary lifestyles and promotes mental health through increased participation and activity.

- PCN08 'Recreation' – by improving footpaths, lighting and signage as recommended in EIWS opportunities to access recreational and environmental services are somewhat improved for some of Yarra's community.
- PCN09/ BF06 'Community safety' – more people on the streets (both day and night) increases safety for all. In addition suggestions to improve the walking environment are commensurate with the strategy to support a safe, clean and welcoming physical environment.
- PCN10 'People living with a disability' – EIWS addresses issues of improving footpaths and access crossings and providing seating, lighting and DDA compliant toilets, all of these contribute to improving access and inclusion.
- BF07 'Community access' – Many of the actions for infrastructure improvement recommended in EIWS relate to the Disability Discrimination Act (DDA) compliance. Improving access for all will have far reaching consequences for all abilities.
- CCT01 'Arts and culture' – public art and ownership is intrinsic to the walking environment particularly in an urban context. Attractive and interesting streetscapes that engage the community are an important recommendation in EIWS.
- LEB01 'Economic development' – EIWS recognises the importance of the local Yarra community in contributing to the economic vitality of Yarra. Many of the local trips made to businesses by Yarra residents are made on foot. Improving the walking environment will contribute to improving economic vibrancy.
- EPS01 'Public space/civic pride' – this strategy identifies several actions which are intrinsic to the success of encouraging and increasing walking in Yarra. These include improving signage at gateways, removing graffiti in hostile spaces and ensuring technical design standards to ensure a well-designed, safe and attractive public environment.
- EPS02 'Open space network' – recreational walking in Yarra's parks and along trails is vital to quality of life of our population. Efforts to enhance and expand these areas are important to the continued growth of walking in these areas.
- EPS04 'Sustainable resource use' – the environmental impact of reducing greenhouse emissions by increasing walking for short trips, is just one aspect of EIWS, but it is also an important long term goal.

(Appendix 1 contains a detailed analysis of the policy and programs for walking, at the Federal, State and local levels.)

3.2 The EIWS project aims

The goal of the EIWS project is:

To develop a Strategy which encourages walking as a mode of transport and outlines actions to create a city which is a great and safe place to walk, stop rest and be in.

EIWS aims to:

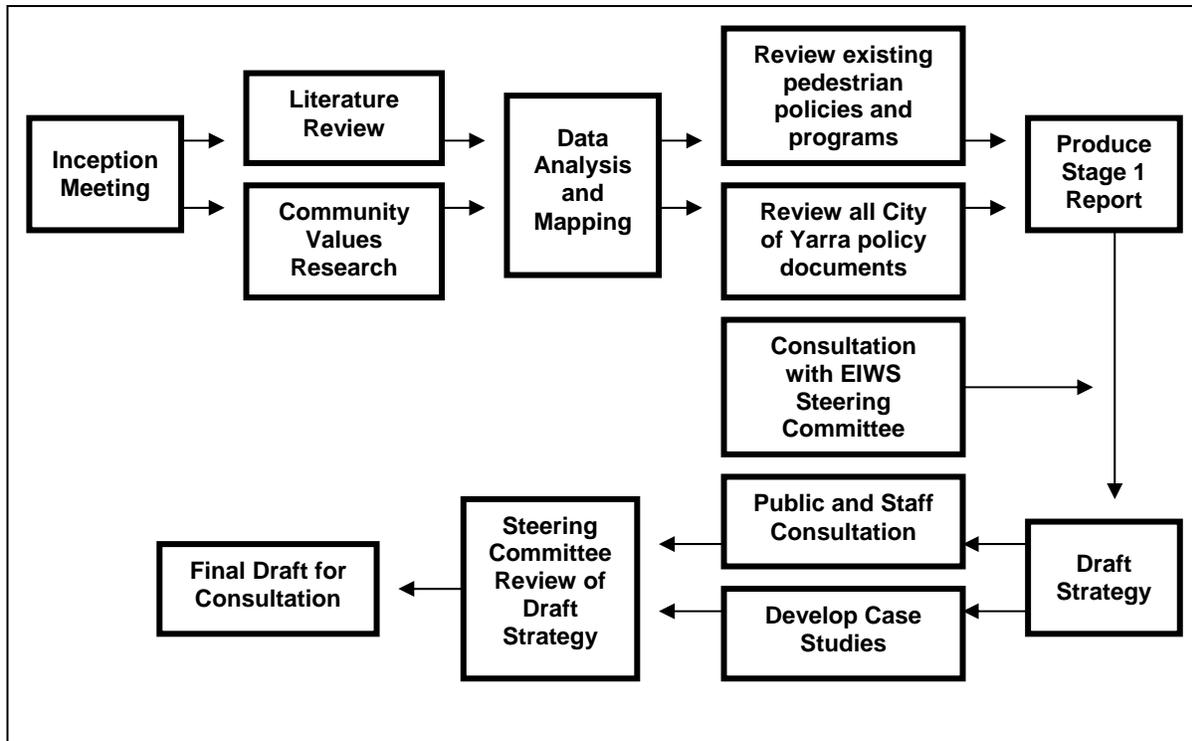
1. Encourage walking as a mode of transport within Yarra;
2. Bring life back into Yarra's streets as spaces for people and allow them to function as actively used public spaces;
3. Promote a sense of community and encourage social interaction in the public domain;
4. Improve safety and security by activation and other measures;
5. Create attractive streets by enhancing streetscapes and improving pedestrian amenity in the public domain and identify suitable locations for public squares, places to sit, short cuts to activity centres and public transport etc;
6. Encourage walking for health and wellbeing; and
7. Promote connectivity and permeability especially to shops, schools, health centres and public transport.

3.3 Study Methodology

There were ten distinct stages in the EIWS study methodology. The first stage (February 2005) included an inception meeting to formulate the process and outcomes. The second stage was a research stage which reviewed literature and assessed community values. The next stage was to analyse the data and map information. The fourth stage reviewed and related policies and programs both within Yarra and those available elsewhere. The next stage was the production of the Stage 1 Report for the steering committee. The sixth stage was the consultation with the steering committee and editing of the Stage 1 Report to form the draft strategy. Stage 8 involved consultation with Yarra's staff and community and the development of the case studies. After the consultations and case studies informed the report the steering committee had another opportunity to comment. Stage 10 was the production of a final draft for consultation.

The Study Methodology is illustrated below:

Figure 1



3.4 Research Review

Throughout Australia there is a growing recognition that supporting the growth of walking and environments that encourage people to want to walk more is a ‘win-win’ approach. Walking is an efficient mode of transport for ‘short’ trips (less than 1-2 kilometres), many of which are currently made by car. It is often the best mode to access public transport as it eliminates the need to find car parking. It is also the most popular form of recreation, an excellent form of health promotion, and the most equitable form of access for people of all ages, abilities and income levels.

In order to encourage people to walk more it is generally accepted that it is necessary to both improve the quality of the walking environment, for example by providing smooth surfaces for footpaths and to promote walking through encouragement programs for example the Walking School Bus program to encourage children to walk to school.

(Appendix 2 contains detailed analysis of the benefits of walking and the processes involved in encouraging behaviour change.)

3.5 The Policy and Program Context

The policy context for encouraging and increasing walking is positive. The Australian Federal Government and the Victorian State Government both fund and operate programs that support travel behaviour change and promote walking. At the State level the policy context (through Melbourne 2030 and the Metropolitan Transport Plan) is also supportive of

initiatives that encourage people to walk more, through safety and related physical programs. State and Federally funded initiatives include TravelSmart, the Walking School Bus, 'Active Script', 'Go for your life', traffic speed reduction and other safety programs.

At the local level it is increasingly recognised that works and programs that assist walking will contribute to the achievement of a range of other objectives. Many of the Strategies in the City of Yarra Council Plan 2005-2009 will be easier to achieve by encouraging walking. Yarra's current positive policy context can be improved with detailed attention to the quality of the walking environment and the promotion of walking, especially in the fields of sustainable transport, the quality of the environment, economic development and social and recreational fields. (See Appendix 1)

3.6 Data Analysis

The City of Yarra is an ideal place in which to encourage and increase walking. It has a compact layout and a permeable, grid street pattern. Most shops, workplaces and dwellings are within a reasonable walking distance (less than 800 metres or 10 minutes walking) to at least 2 forms of public transport. However, there is considerable fast and heavy through traffic and major roads bisect the City, including Hoddle Street, Alexandra Parade, Johnston Street and Queens Parade. In addition, some of the City's major shopping strips for example, Bridge Road and Swan Street still carry large volumes of through traffic, although at reduced speeds.

Data shows that walking is the major mode of travel in the City of Yarra. However, there are still many short car trips (less than 2 kilometres) made within Yarra, to shop, to work and to school. Most people who work in Yarra drive to work. Only 13% of workers in the City of Yarra use public transport, in spite of the fact that many people who work in Yarra live in suburbs with good public transport connections. Over 4,000 people who live and work in Yarra drive to work.

The City of Yarra has a large local population that do not own a car and a high percentage of those find car ownership and use prohibitively expensive. There are many in the community who rely on walking and public transport as their major mode of transport and need the support of Council to improve the walking environment for their journeys to school, work and shop.

Yarra's five major strip shopping centres (Brunswick, Smith, Swan and Victoria Streets and Bridge Road) rely heavily on the local population for their economic well-being. The Retail Activity Centres Report¹ shows that for most of the shopping strips the trade from local residents and local workers ranges from 65% in Victoria Street up to 85% in Swan Street. Across all five shopping strips the average is close to 75%. Even though local residents spend less per visit they visit much more frequently than others. It is important for Council to acknowledge this in future business analysis and actions.

(Appendix 3 contains more detail of the data analysis)

¹ Charter Keck Cramer, for the City of Yarra, March 2003

3.7 The Consultation Program and Analysis

Consultation was undertaken in order to correctly gauge community issues and values in relation to walking in Yarra. The EIWS Consultation Program consisted of a number of components designed to enable all stakeholders to participate in the development of the strategy. They included:

A community values questionnaire (to over 80 individuals and organisations), Council staff consultations, three public consultations (one in each ward), a business consultation and attendance at Yarra's Disability Advisory Committee meeting discussing capital works.

3.7.1 Community Values Questionnaire

The Community Values Questionnaire (Appendix 5) was developed to enable respondents to identify both the nature and the location of walking 'issues' in the City of Yarra. Approximately 80 questionnaires were sent to community groups, community organisations and individuals within the community. The questionnaires were distributed both by mail and electronically.

The main response from the Community Values Questionnaire focused on two major issues:

1	Traffic speed and volume	<ul style="list-style-type: none">• including poor driver behaviour• difficult and potentially unsafe road crossings
2	Footpaths	<ul style="list-style-type: none">• footpath condition• space on footpath• access crossings• objects blocking footpaths• leaves• cyclists• inadequate signage

3.7.2 Public Consultation

There were three structured public consultations. The consultations were held in each of Yarra's three wards. The sessions consisted of opportunities for the attendees to identify where they currently walked, what issues and problems they experienced and what they believed could be done to rectify any problems.

At the Collingwood Public Consultation the main suggestions for action were:

1	Footpaths	<ul style="list-style-type: none"> • Maintenance • Cleaning – especially of leaf-fall which conceals trips and slips • Dogs – responsible behaviour of dog owners to clean up afterwards
2	Signage	<ul style="list-style-type: none"> • Direction • Distance and walk time to major destinations
3	Road crossings	<ul style="list-style-type: none"> • Making it easier to cross roads – reduced pedestrian wait-time and more crossings
4	Bicycles	<ul style="list-style-type: none"> • Improve bike routes so that cyclists don't need to ride on footpaths
5	Pedestrian amenities	<ul style="list-style-type: none"> • Seats • Drinking fountains • Shade trees
6	Smaller shopping areas	<ul style="list-style-type: none"> • Council support for smaller shopping areas which are closer to homes and easier to walk to

At the Richmond consultation the main suggestions for action were:

1	Information	<ul style="list-style-type: none"> • Produce a pedestrian-focused map – showing where it is safe and possible to cross roads, access to the Yarra River, walk-times to destinations and public toilets
2	Footpath blockages	<ul style="list-style-type: none"> • 'Oversize' footpath trading • Trees overhanging footpaths
3	Traffic speed and volume	<ul style="list-style-type: none"> • Pollution - air quality was poor • More traffic treatments so that road crossability is improved
4	Pedestrian lights	<ul style="list-style-type: none"> • Speed up responsiveness • More pedestrian green time – especially at Epworth Hospital, Swan Street Coles and Bridge Road Post Office lights
5	Pedestrian facilities	<ul style="list-style-type: none"> • Lighting • Toilets – accessible for people with disabilities • Drinking fountains
6	Health and recreation	<ul style="list-style-type: none"> • Council should facilitate more walking outings and regular walks, preferably within the local area
7	Infrastructure	<ul style="list-style-type: none"> • Footpath needed over a corner of Golden Square Park, to avoid current 'detour' via Burnley Rail station

At the Fitzroy North Consultation the main suggestions for action were:

1	Wide roads	<ul style="list-style-type: none"> Encourage drivers to speed and as a result they are difficult for pedestrians to cross
2	Pedestrian lights	<ul style="list-style-type: none"> Green phase is too short for mothers with children, or older people who walk more slowly than allowed for by the prevailing standards - crossing Alexandra Parade is a particular problem 'Offset' pedestrian light crossings require pedestrian detours and should be removed where possible
3	Traffic speed and volume	<ul style="list-style-type: none"> Lengthen green phases on pedestrian crossing lights
4	Drug use	<ul style="list-style-type: none"> Gold Street was identified as a problematic location, often deterring people from walking in the area
5	Toilets	<ul style="list-style-type: none"> More DDA compliant toilets – need to be self cleaning as drugs are a problem
6	Seating	<ul style="list-style-type: none"> In the shade
7	Lighting	<ul style="list-style-type: none"> Improve lighting in and near the major activity centres in this area
8	Laneways	<ul style="list-style-type: none"> Important short cuts for pedestrians are provided by laneways – Council should develop a policy to retain these short-cuts
9	Garbage bins	<ul style="list-style-type: none"> Footpaths are blocked by garbage bins – better enforcement for prompt removal is needed
10	Maps	<ul style="list-style-type: none"> A good local map showing distance and approximate timings of safe walking routes, including the shared footways/cycle ways and amenities such as shops, toilets, BBQ's and schools

Independent submissions (by mail and email) were made by people unable to attend any of the public consultation sessions who wanted to contribute to the strategy. The issues raised, by the independent submitters, included a range of similar issues – cyclists on shared routes travelling too fast (and the lack of safety for them on the roads), poor footpath condition, difficulty in crossing roads, garbage day blockages of narrow footpaths and footpath trading.

Overall there were some common themes that emerged from the consultations. For those who do walk the first steps for improving the physical walking environment, in Yarra, are:

1. The need for **maps and information** for pedestrians.
2. The need for attention to detail over the quality of the **footpath** so that trips and slips are prevented.
3. Road **crossability** needs to be improved, including the installation of more pedestrian crossings and faster traffic light responsiveness.
4. The **removal of blockages** to pedestrians on footpaths, including the enforcement of footpath trading regulations.

3.7.3 Business Consultation

The Retail Business Forum held in April 2005 is held every six months. The object is for Council to provide an update to the business community and get feedback. Representatives from Yarra's major retail strips and Yarra's Business Advisory Group attend.

The general condition of the walking environment was raised as an issue by the Business representatives and in particular the condition of the footpaths along shopping strips. There was general agreement that improving the footpaths and encouraging walking would be good for business. However, businesses were also concerned about the lack of parking and one participant recommended a business worker and owner car park so that the street parking could be used for visitor and shoppers needing to park.

It was suggested at the forum that an analysis of the walking / parking relationship to business viability sponsored by businesses, similar to that undertaken by Acland Street Traders², would help to clarify priorities regarding asset management in shopping strips.

3.7.4 Council Staff Consultations

Staff members from all Council Departments having responsibility for a range of aspects of walking issues attended the consultations.

Staff were asked to identify new opportunities for encouraging and increasing walking and the issues involved in implementing the new opportunities.

The staff consultation showed that there is a good appreciation, by staff, of the links between walking and a range of initiatives that could be adopted in the City of Yarra. It also showed that most of the initiatives required support and co-operation across a range of Council Departments. Most new initiatives will require interdepartmental co-operation, through planning to implementation. This will be enabled through consistent Council policy.

² Over the past two decades a number of City of Port Phillip Council studies illustrated the importance of expenditure in this street by people who walked in to shop. However, for many years businesses rejected the idea of reducing on-street parking in order to increase pedestrian amenity. In 2003 the Council funded businesses to commission their own study. That Study showed that 74% of expenditure was made by people who walked, cycled or caught public transport to the centre. In 2004 businesses sought removal of car parking and the widening of the footpaths in Acland Street.

In priority order (based on the frequency of mentions) staff nominated the following initiatives:

1	Signage and maps	Install better pedestrian signage and produce all of Yarra and local maps
2	Parking	Develop a clear policy regarding parking to support encouraging walking
3	Footpaths	Widen footpaths on the major shopping streets and those streets with narrow footpaths
4	Clutter	Reduce clutter, which act as barriers to pedestrians, on existing streets as a means of effectively improving space for pedestrians on footpaths
5	Road crossability	Improve road crossings, for example, including the installation of splitter islands at road junctions
6	Walking routes	Identify walking routes between major origins and destinations
7	Shared zones	Install shared zones in busy pedestrian areas of Yarra
8	Shared path network	Link up shared paths
9	Schools	Improve the walking culture to and around schools
10	Lighting	Provide better lighting especially around stations and other major pedestrian destinations

(Appendix 4 contains a detailed description of the consultation and Appendix 5 is a copy of the Community Values Questionnaire)

4. THE CITY OF YARRA – URBAN FORM

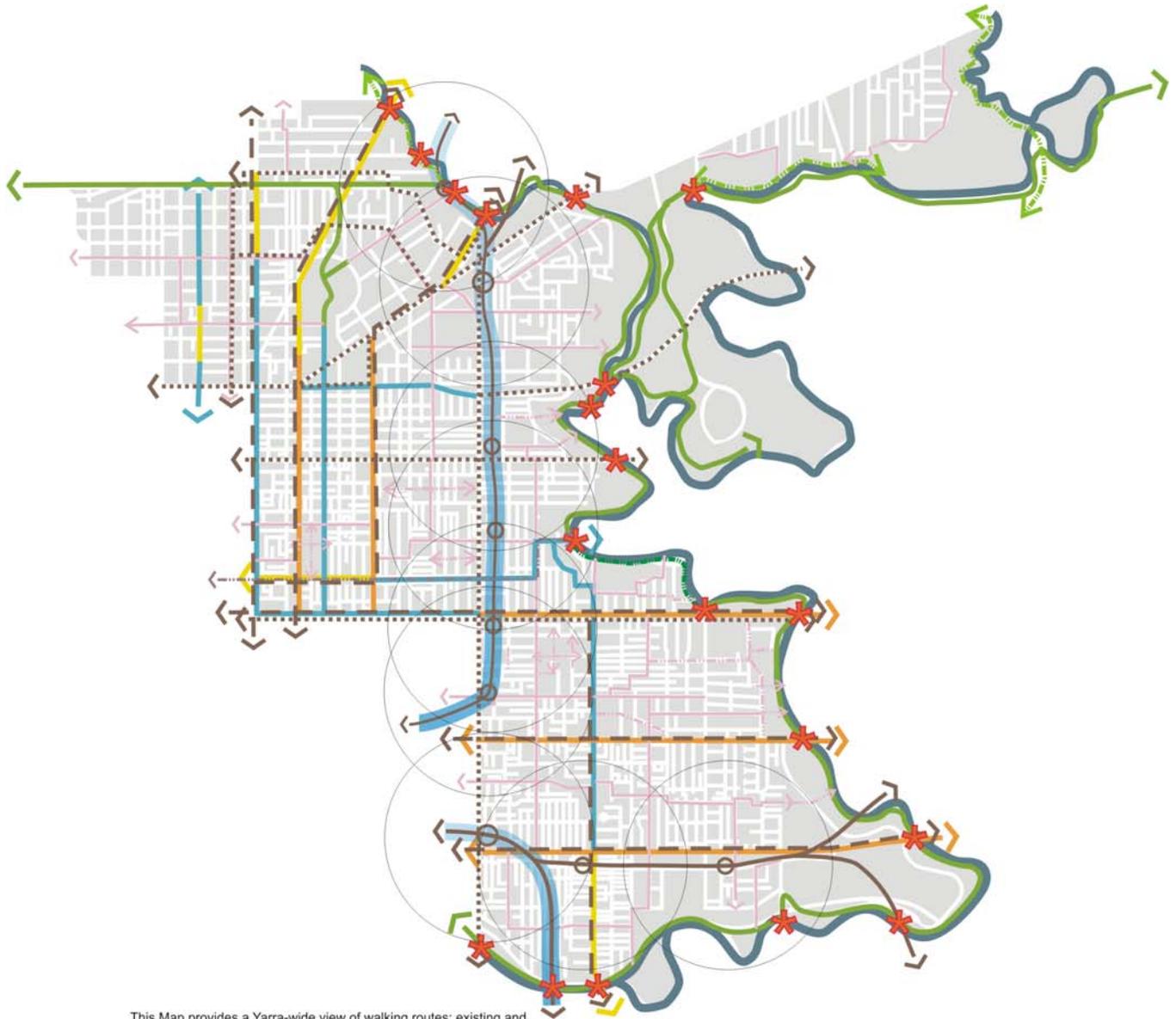
The suburbs that now make up the City of Yarra were laid out with the pedestrian in mind. The blocks of housing and shops are generally short and very pervious to foot traffic. In structure and theory it is the ideal walking environment. Over 95 percent of all dwellings, shops and workplaces are within either 800 metres of a rail station or 400 metres of a tram or bus route. Up to 50 percent of the City is within these limits for 2 or 3 of these types of public transport services. In addition, most of the city is within 400 metre of an activity centre.

Rail stations, tram and bus stops are both ‘destinations’ and ‘origins’. For the residents of Yarra they are the destinations that local people walk to in order to travel elsewhere in Yarra or other Melbourne suburbs, including the City of Melbourne. However, for the residents of other Melbourne suburbs these stops are the origins of walk trips to places in the City of Yarra. Access to public transport is usually by walking, so that a good public transport service will encourage walking. By Melbourne standards Yarra has a good level of public transport service.

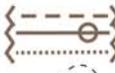
As a result improving the ‘access’ to rail stations and other public transport stops (within the 400-800 metre radii) has a dual benefit. It not only encourages local resident walking, but visitor walking too. The types of initiatives that have been demonstrated as valuable include information services (e.g. walking maps), workplace ‘Green Travel Plans’, signage, and works to remove the physical barriers to walking for example, lack of road crossing points and poor footpaths.

The City of Yarra also has a good set of walking tracks and shared paths using most of the rail trails, parks and gardens in the city. These pathways need to be linked to form a coherent network, since many come to a halt when they meet major roads or other barriers. The gaps in these networks are barriers to walking, and limit the potential for its growth, in the City of Yarra.

The map on the following page shows the existing pedestrian framework and proposed future links to improve pedestrian movement.



This Map provides a Yarra-wide view of walking routes: existing and proposed under various Council Strategies.

-  Major shopping strips
-  Existing regional cycling/walking routes, links
-  Existing regional on road walking routes/link
-  Local shopping district
-  Local links
-  Bridge
-  Transport-
Tram
Railway
Bus
-  Railway station with 800m radius
-  Proposed Actions:
Proposed extensions to existing regional and major links,
especially along those along the river
-  Rail corridors: parts of these corridors are barriers -
pedestrian links across these barriers should be introduced.
The quality and pedestrian amenity of existing
underpasses/overpasses should be improved: better
lighting, pavement, accessibility for disabled etc.
-  Upgrade regional link linking Yarra Bend Park to the Carlton
Gardens, two key destinations in the Inner Melbourne
Visitor Domain.
-  Possible local extensions through existing developed areas,

5. THE AUDIT APPROACH AND THE THREE CASE STUDIES

The methodology for the development of this strategy included using case studies. Time and resource limitations meant that an analysis of the whole city was not practicable. The case study approach identifies particular issues in different types of areas and suggests recommendations. These recommendations can be applied universally, within Yarra, to areas which are similar to the case study areas within Yarra.

The 3 case study areas were selected to:

- Provide the City of Yarra with the analyses of 3 areas which have different types of walking issues and problems – and therefore solutions
- Provide the City of Yarra with a range of recommendations from each area that could be applied to other relatively similar areas within the City
- Spread the case studies throughout the City, so that different areas could benefit from the implementation of the recommendations

The case studies used the '*pedestrian audit process*' which audits areas from a pedestrian's perspective. This involves walking through areas and along routes and visually examining the footpaths, road crossings, transport interchanges and other elements which determine the 'walkability' of an area or route. It is a thorough process aided by constant reference to a list of questions, referred to as the '5C's'³.

The '5C's' is a checklist of questions to be asked (and answered) at all points along all routes throughout a study area. The basic elements of the checklist are:

1. **Is the route Connected?**
e.g. are there good connections to public transport and other destinations?
2. **Is the route Comfortable?**
e.g. are there good footpaths, lights, seats etc?
3. **Is the route Convenient?**
e.g. are there good and safe crossings?
4. **Is the route Convivial?**
e.g. are the routes interesting and free from threats?
5. **Is the route Conspicuous?**
e.g. is the route 'signed' and easy to follow?

There are, in practice, between 5-10 'questions' within each of the categories listed above – they are provided in detail in the case study reports in Appendix 7.

³ Adapted from Llewelyn-Davies & the National Retail Planning Forum, '*Going to Town: Improving Town Centre Access*', London, 2002

5.1 COLLINGWOOD

5.1.1 CASE STUDY EXECUTIVE SUMMARY AND RECOMMENDATIONS

The boundary of this case study area is:

- North = Johnston Street
- South = Gipps Street/Peel Street
- East = Hoddle Street
- West = Smith Street

This is a case study of an area which has a relatively poor walking environment, is largely surrounded by major roads and contains a high percentage of public housing land with unclear access. The density of the dwellings presents opportunities to address equity issues in travel options. The area also includes a shopping strip, Smith Street, as a major attractor for walk trips. This type of area presents some opportunities for change to the walking environment which will affect large numbers of residents. (See Map 2)

The audit process identified:

- The lack of space for walkers, through narrow footpaths, and the dominance of traffic and space allocated to it
- The barriers that Hoddle Street and Johnston Street present to walking to the north and east and the lack of nearby 'destinations' to the south.
- The major local destinations are Smith Street a Major Activity Centre, St Josephs Primary School and the North Melbourne Institute of TAFE College
- The walking environment between the public housing area and Smith Street is poor and the major route needs considerable upgrading, given its importance to local residents.
- The walking environment of Smith Street needs immediate improvement (especially for those with disabilities living in this area, as identified by the Disability Advisory Committee, and longer term restructuring.
- There is little or no useful pedestrian signage in the area
- There is almost no useable public space
- There is no sense of public ownership or involvement via art or sculpture
- There is only 1 public toilet which is not signposted and is in poor condition.

Recommendations

5.1.1a Hardware

1. Subject to Heritage considerations, all side road crossings of Smith Street (on both sides) between Stanley Street and Johnston Street should be raised to footpath height. Footpath treatment to continue across the raised area.
2. When work is undertaken in Smith Street, investigate opportunities to widen the footpaths.
3. Attend to all Disability Discrimination Act (DDA) issues in Smith Street in the short term.
4. Otter Street should be designated the 'priority route' to Smith Street from the public housing. There is the need undertake a full pedestrian treatment of Otter Street –

including signage at both ends, lighting, seats, quality access crossings at corners, footpath surface, traffic calming and a permanent full-time 40 kph limit.

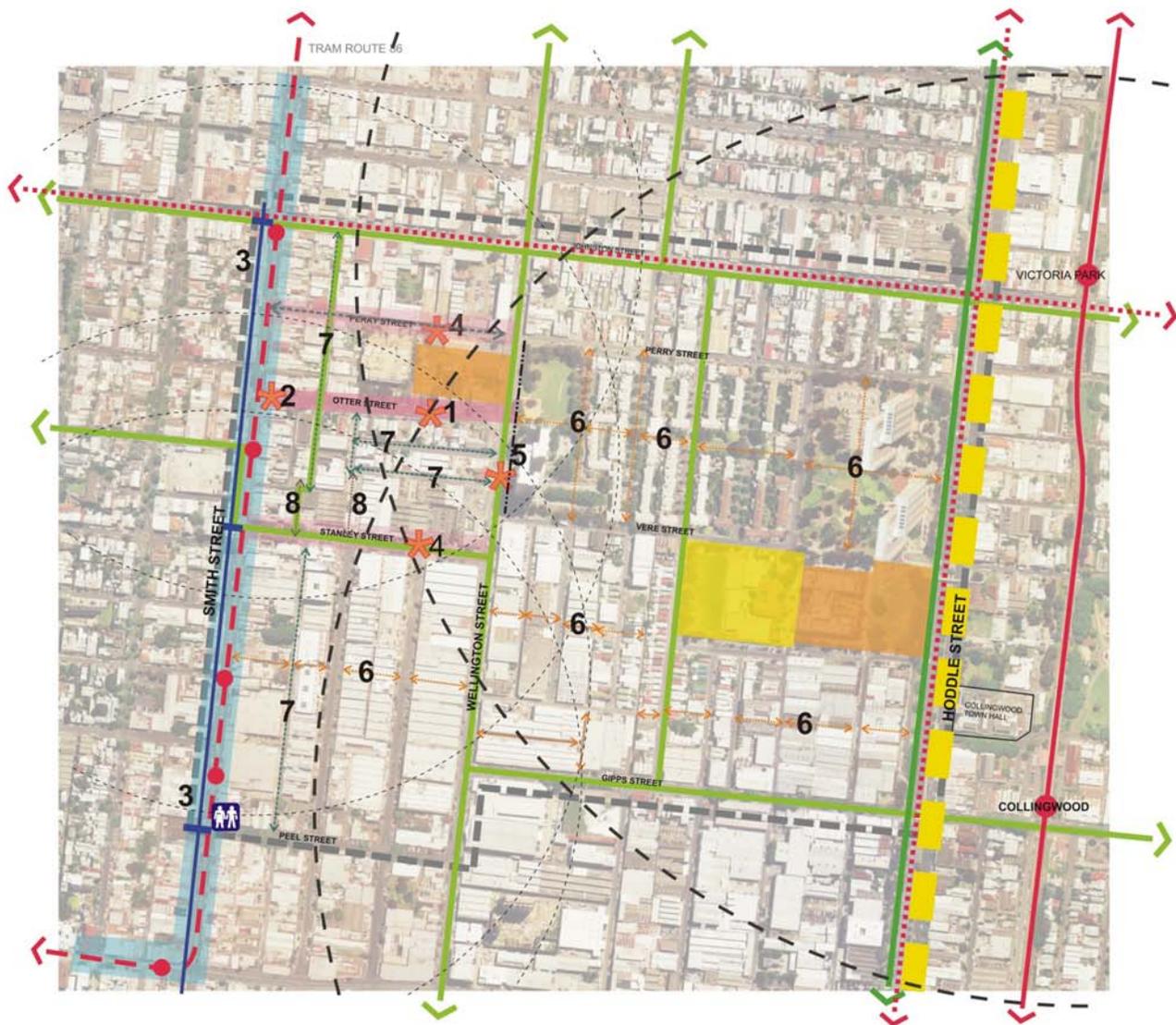
5. Recognise that Otter Street may not be convenient for those coming from all residences. Those that use Perry Street between Hoddle Street and Wellington Streets are entitled to expect a good quality pedestrian environment all the way to Smith Street. Similarly, those that use Vere Street are naturally funnelled into Stanley Street for the last part of the journey. A second priority to Otter Street, therefore, is to upgrade Perry and Stanley Streets to at least acceptable standards – including DDA compliant access crossings.
6. Remove roadside fencing on Wellington Street and slow the traffic.
7. Move the pedestrian crossing on Wellington Street to the end of Otter Street.
8. Check and install street name signs in correct directions.
9. Investigate the options for including ‘art and beauty’ into the area.
10. Increase public seating in the area.
11. Consider traffic bans or (partial) road closure on the most westerly 50 metres of Otter Street at the junction with Smith Street to gain room for a new community space, which is virtually absent in this area.

5.1.1.b Software/programs

12. Establish adequate data collection on walking along specific routes, especially Otter Street before and after signage and improvements. Monitor effects of improvements.
13. Work with both St Josephs School and North Melbourne Institute of TAFE in Otter Street to assist them develop Travel Plans.
14. Print and distribute a clear local map showing the initial walking network with proposed extensions.
15. Review Council’s maintenance programme so that street lighting and footpath resurfacing are afforded a much higher priority in this area.
16. Develop and stimulate community participation and involvement in solutions, including auditing the ‘walkability’ of their local community, using a standard checklist of criteria. (Appendix 7 provides a guide to ‘Auditing the ‘walkability’ of a local community’)
17. Investigation of the possibility of establishing walking clubs or classes perhaps based on shared interest for example age and ethnicity.
18. Provide information relating to home delivery services from shops and supermarkets and encourage shops to participate.
19. Generate data on ‘walk spend’ in Smith St to get support of traders

5.1.1.c Application to other areas

20. Apply the same treatment types to other areas around major shopping strips, perhaps prioritizing those with public housing nearby:
 - a. identifying 1 or 2 good safe routes and give them full treatment
 - b. reviewing of the maintenance programme
 - c. community participation and involvement in solutions, including auditing
 - d. establishing walking clubs
 - e. data collection on walking along specific routes
 - f. Travel Plans for schools and businesses



- Bike path - existing
- Major shopping strips
Major roads/barriers
Priority streets
- Case study boundary
- Key Note [see text]
- Education / School
primary
Secondary
- Transport-
Tram
Train
Bus
- Railway Station 800m radius
Tram Stop 400m radius
- Public toilets

1. Otter St should be priority route from public housing to Smith St; actions include: ensuring DDA compliance; improving signage, lighting, seating, pram crossings and footpath surface and a permanent speed limit of 40 km/h
2. Consider traffic limiting and partial road closure for 50m of Otter St at the intersection with Smith St to introduce an urban square/community space.
3. All side road crossings on both sides of Smith St between Stanley Street + Johnston Street to be raised to footpath height. Widen footpath on both sides of Smith St and improve crossings at street intersections.
4. Upgrade Perry St + Stanley St as with Otter St to improve east-west connectivity. Investigate Perry St as a shared zone with a traffic speed limit of 30km/hr.
5. Move the pedestrian crossing on Wellington St, from end of Napoleon St to end of Otter St to allow continued pedestrian movement from the housing estate to Smith St. Remove roadside fencing to improve pedestrian movement along this side.
6. To improve connectivity and permeability and provide a choice of pedestrian routes, any Structure Plans, Frameworks or development plans for large sites have to incorporate through block linkages to break up large super blocks into finer and more permeable grain, which is a prerequisite for any walkable environment - the maximum length of any block should not exceed 150-200m. Specific blocks for urgent attention in this area, include:
 - Collingwood Housing Estate;
 - The Industrial sites bounded by Hoddle, Wellington, Vere and Gipps St;
 - The warehouse/ former industrial sites between Wellington, Stanley, Smith and Peel Streets.
7. Streets narrower than 10m to be investigated for potential as shared zones.
8. Consult with the community regarding reopening closed laneways.
9. Work in partnership with businesses and educational institutions to develop Travel Plans, in particular with North Melbourne Institute of TAFE, St. Joseph's Primary School and Collingwood College



5.2 FITZROY NORTH

5.2.1 CASE STUDY EXECUTIVE SUMMARY AND RECOMMENDATIONS

The boundary of the study area is:

- North = the Municipal boundary
- South = Princes Street and Alexandra Parade
- East = Hoddle Street and the Merri Creek
- West = Nicholson Street

Fitzroy North was selected for examination and survey because it was identified as an area with a reasonably good walking environment and potentially excellent walking environment. There is also the potential to undertake works and programs, which could successfully encourage and increase walking. The audited area covers most of Fitzroy North. (See Map 3)

The area is predominantly residential, with 2 strip shopping areas, one on Queens Parade and the other along parts of Brunswick Street and St Georges Road. The other main elements of the areas include:

- One rail station (Rushall), but with Clifton Hill on the east side of Hoddle Street.
- Three tram routes – No. 86 Queens Parade, No. 112 Brunswick Street and No. 96 Nicholson Street.
- Five bus routes.
- Three parks (Edinburgh Gardens, Darling Gardens and Mayor's Park).
- Five schools – 4 primary and 1 secondary.
- A network of formal and informal cycle paths and shared path trails.
- Two concentrations of elderly citizens' developments.

The audit process identified:

- Hoddle Street and Alexandra Parade act as pedestrian barriers to the area
- The minor roads seemed to attract limited amounts of through traffic, although there was considerable traffic on the major roads through the area – St Georges and Queens Parade.
- Many of the minor roads have been 'calmed' and the pedestrian routes in the area are generally quite good for pedestrians (and cyclists). However, one 'uncrossable' intersection can make a whole route unusable for elderly pedestrians, people in wheelchairs, using walking frames or pushing a pram.
- The local streets have interesting architecture, are wide and attractive, and many link to a school, a park, a public transport stop or a retail area.
- The major local pedestrian destinations are the small shopping/service areas in St Georges Road/Queens Parade, the schools, parks and public transport stops.
- There is little evidence of graffiti or other anti-social behaviour.
- The parks are in good condition and appear to be well-used.
- There is little or no useful pedestrian signage in the area.
- There was limited pedestrian activity on the streets outside the major retail areas.

Recommendations

5.2.1a Hardware

1. Improve pedestrian movement on Hoddle St and Alexandra Pde significantly. Give priority to pedestrians over vehicles at existing crossing points across both streets and where possible introduce signalised crossing points with longer duration for pedestrian crossing - same should be applied to existing signalised crossing points. In addition, implement the following specific actions:
 - a. Introduce new crossing point across Hoddle St at Clifton Hill Station;
 - b. Introduce new crossings at the nominated points across Alexandra Pde.
2. Ensure that all footpaths and kerb crossings are DDA compliant; in some cases this involves repairing broken edges, replacing high kerbs, filling holes in footpaths etc.
3. To improve connectivity and permeability and provide a choice of pedestrian routes, new structure/ development plans for large sites have to incorporate through block linkages to break up large super blocks into finer and more permeable grain, which is a prerequisite for any walkable environment - the maximum length of any block should not exceed 150-200m. One particular site/block needs urgent attention in this area is the Gas and Fuel Site with the following recommendations for incorporation into any development plans for this site:
 - a. Extend Hodgkinson St through the site to George St to improve east-west
 - b. permeability;
 - c. Extend Jamieson St through the site linking it to Gore St to the south to improve
 - d. north-south connectivity.
4. Audit the area around the Retirement Village at Rushall Station and identify paths of travel for elderly and highlight inaccessible areas or those that are not DDA compliant.
5. Reallocate road space to pedestrians. Currently most footpaths drop kerbs when meeting roads. This means that cars have a smooth run but pedestrians have to negotiate kerbs of varying levels. Constructing a continuous pedestrian network where cars have to slow down to cross raised footpaths is preferred. (Such a pedestrian network would involve prioritising those routes with the highest levels of potential use, starting outside schools, park entrances, shopping areas, and road intersections in residential areas. Where the network intersects busy roads, appropriate crossing treatment should be installed. The approach would be gradual and incremental, building on success and public support).
6. The installation of a zebra crossing to Rushall Station over Rushall Crescent.
7. The installation of a pedestrian crossing at the intersection of Newry Street and Brunswick Street. At this location a cycle route crosses Brunswick Street and there are two tram stops, but there is no safe crossing of Brunswick between Princes Street and the Edinburgh Gardens Bowling Club. Newry Street lies in the middle of this gap.
8. The installation of signage along the Capital City shared route to indicate safe road crossings. There is a specific need for a sign to tell people that there is no safe road

crossing of the route to Edinburgh Gardens over St Georges Road and that cyclists/pedestrians should divert via the Capital City route. The recommended approach to signage is the Bristol Approach⁴.

9. The installation of signage to the Merri Creek shared route from St. Georges Road.
10. Notwithstanding issues of maintenance, vandalism and inappropriate usage, it is essential that additional toilets be provided if walking is to be encouraged in the area.

5.2.1b Software/Programs

11. There is a need to assess the usefulness of all existing signage in the case study area and to remove unnecessary or outdated signs
12. There is a need for a review of existing provision of seating and for a consistent style of seats to be installed.
13. Encourage walking to school: - Fitzroy North contains five schools, to which walking should be encouraged through the development and implementation of School Travel Plans. Some are in ideal locations and represent great opportunities to increase walking.
14. Encourage walking for health: Fitzroy North has two retirement communities for elderly people. Because it already has some of the elements of a good walking environment in place, there is an opportunity to increase the amount of walking by senior citizens, whether to the shops or other activities, or as a pleasure in its own right. This requires attention to detail in the physical environment (dealing with trip risks, kerbs, lighting and signage for example). The recommendations of Healthy by Design: a planners' guide to environments for active living (National Heart Foundation of Australia, Victorian Division, 2004) could be usefully followed. However, it also requires encouragement and promotion to elderly people themselves: here reference would need to be made to the many health walking programs operated in Australia specifically targeted at getting more elderly people walking. This could be done, for example, through encouraging the appropriate Division of General Health to involve local doctors in the 'Active Script' program.

It is specifically recommended that the area around the retirement community at Rushall be audited in detail to improve its useability for elderly people on foot, particularly for important and necessary journeys, to clinics and to shops on Queens Parade. An improved retail mix, would enhance the Queen's Parade centre and probably increase the amount of walking into the area from the surrounding streets and residential developments

11. Encourage recreational walking: North Fitzroy has three parks and several shared walking and cycling trails, such as the Capital City and Merri Creek. It thus has great

⁴ The Bristol signage system is widely acknowledged as being of world best standard. It consists of a range of components, including On-street Information Panels, Directional Signs (which can be attached to the panels or used independently), Street Signs, pedestrian maps (as opposed to car focused maps) and tactile signs. See Appendix 7.

potential for recreational walking, which can be released by taking the action recommended. This includes attention to the physical environment as detailed above, particularly the development of an area-wide pedestrian network which would allow access to all open spaces without having to contend with busy road crossings. Social safety issues also require specific attention, such as lighting, and vegetation maintenance. Signage and information is of vital importance. Walking can be encouraged through the development of walking clubs, groups or 'Walk and Talk' programs and is especially apt in Neighbourhood Houses, Community Health Centres and Recreation Centres. Promotion of walks is an important component in encouraging recreational walking. It is an area where the cooperation of Council departments concerned with leisure, open space and heritage is vital.

5.2.1c Application to other areas

There are other parts of the City of Yarra where this approach may well be applicable, i.e. they have been 'traffic calmed' and treated to reduce through traffic, where cycling is safe, and where there are schools, shops and parks. They potentially include Burnley, Clifton Hill, Alphington, Princes Park and the calmed 'inter-block' areas of Richmond.



Figure 26 A raised pedestrian crossing - Toorak Road, South Yarra



Figure 27 A raised pedestrian crossing, in a mid-block location, Nelson, New Zealand

Evidence shows that vehicle speeds are reduced sharply when drivers cross road humps, and that vehicles are driven slowly and considerably on paved areas that are unambiguously the preserve of pedestrians.

Such a pedestrian network would involve prioritising those routes with the highest levels of potential use, starting outside schools, park entrances, shopping areas, and road intersections in residential areas. Where the network intersects busy roads, appropriate crossing treatment would be installed. The approach would be gradual and incremental, building on success and public support.



- Pedestrian path
- Shared path
- Bike path
- Shopping strips
- Case study boundary
- Major pedestrian barrier
- Key Note [see text]
- Education / School
primary
Secondary
- Retirement Village
- Transport
tram
rail
bus
- Significant transport interchange
- Railway station 800m radius
Tram Stop 400m radius
- Public toilets

1. Improve pedestrian movement on Hoddle St and Alexandra Pde. Give priority to pedestrians over vehicles at existing crossing points across both streets and where possible introduce signalised crossing points with longer duration for pedestrian crossing - same should be applied to existing signalised crossing points. In addition, implement the following specific actions:
 - Introduce new crossing point across Hoddle St at Clifton Hill Station;
 - Introduce new crossings at the nominated points across Alexandra Pde.
2. Install new zebra pedestrian crossing at Rushall Station across Rushall Crescent.
3. Install signage along the Inner Railway Linear Park/ Capital City Trail shared route to indicate safe road crossings and encourage people to use this route. In particular, there is a need for a sign to inform pedestrians about the existing protected crossing point at 3a, as there isn't a safe crossing at 3b.
4. Install signage to the Merri Creek shared route from St. Georges Rd.
5. Install new pedestrian crossing at the intersection of Newry St and Brunswick St, preferably signalised.
6. To improve connectivity and permeability and provide a choice of pedestrian routes, new structure/ development plans for large sites have to incorporate through block linkages to break up large super blocks into finer and more permeable grain, which is a prerequisite for any walkable environment - the maximum length of any block should not exceed 150-200m. One particular site/block needs urgent attention in this area- the Gas and Fuel Site with the following being investigated for incorporation into any development plans for this site:
 - Extend Hodgkinson St through the site to George St to improve east-west permeability;
 - Extend Jamieson St through the site linking it to Gore St to the south to improve north-south connectivity.
7. Audit the area around the Retirement Village at Rushall and identify paths of travel for elderly and highlight inaccessible areas or those that are not DDA compliant to improve these routes.
9. Work in partnership with educational institutions to develop Green Travel Plans, in particular the schools in the area.
10. Ensure that all footpaths and kerb crossings are DDA compliant; in some cases this involves repairing broken edges, replacing high kerbs, Filling holes in footpaths etc.



5.3 RICHMOND – EAST RICHMOND STATIONS

5.3.1 CASE STUDY EXECUTIVE SUMMARY AND RECOMMENDATIONS

The boundary of the study area is roughly:

- North = Swan Street and just north
- South = Yarra River
- East = Both sides of Church Street
- West = Punt Road

This case study examines an area around railway stations. Almost all stations in Yarra are inconspicuous and poorly signed and (probably) not performing to their full potential of carrying workers and shoppers into Yarra. This poor level of service results in increased car traffic and reduces the quality of the walking (and living) environment. (See Map 4)

The audit and other research suggested that there is significant potential for redevelopment in the area surrounding Richmond Station, on both sides of Punt Road and the rail line (TAFE, Nylex, Olympic Park, and other smaller industrial/commercial sites)

Pedestrian access and amenity to Richmond Station is poor and significant improvements should be built into redevelopment plans for the area, especially the interface of Richmond station with its immediate surrounds. As a priority there is a need to re-open the north exit/entrance. The short-term potential for improving walking in the vicinity of this station is limited until redevelopments occur.

East Richmond Station has good short-term potential for development into a visible, well-connected transport interchange serving the retail and commercial jobs in the area:

- The station is closer to the heart of the Swan Street/Church Street shopping district and to business employment complexes on Church Street. As a result it is already well used by pedestrians. Its catchment includes a substantial residential area to the east of Church Street.
- The station intersects with two tram lines (Swan Street and Church/Chapel Streets)
- There are existing sheltered tram waiting areas under shop verandas.
- Pedestrian crossing facilities (lights and yellow painted strips) are provided nearby on Church and Swan Streets.

However, there are a number of infrastructural issues in the vicinity of East Richmond station that require attention. Specifically, these include:

- The poor signage for train and trams and their interconnection
- The absence of signage to the station from Swan Street
- The lack of a road crossing to the southbound tram at the Church Street exit from station
- Lack of space for walking and the dominance of traffic and space allocated to it
- Lack of useable public space
- The area has no sense of public ownership or involvement via art, sculpture etc
- The area was not audited at night and may be unsafe. Improved lighting may be required

There is thus the need for appropriate works to make the intersection area a clear and welcoming transport interchange.

Recommendations

5.3.1a Hardware

1. Improve the area surrounding Richmond Station to optimise the use of the station by a variety of user groups. Proposed actions include:
 - (a) Re-open the north exit/entrance and ensure it is kept open all the time.
 - (b) Improve pedestrian link/access from the station across Punt Rd by creating a pedestrian overpass attached to the rail bridge, which could be integrated in any development for the station.
 - (c) Provide improved public access under the railway as part of any redevelopment of Richmond Station.
 - (d) Install good quality signage to the station from different directions on Swan St and Punt Rd.
 - (e) Improve lighting around the station, especially entries and exits.

2. Improve the area around East Richmond Station and the station itself to optimise its use. Proposed actions include:
 - (a) Review the area around Swan/Church Intersection, upgrade footpaths and highlight the area as an area where priority is for pedestrians.
 - (b) Provide for crossing between tram stops at station entrance on Church St.
 - (c) Upgrade the railway underpass and improve lighting, and if possible, encourage the redevelopment of this station to incorporate mixed-uses and shops along both sides of the underpass to add activity and improve security and surveillance. Investigate the development of the land currently used as at grade car park on both sides of the station and integrate car parking into any new mixed-use development on these two sites.
 - (d) Upgrade Railway Place. The street needs urgent attention and the following works should be included in the Capital Works Program:
 - Nominate the street as a shared zone, with a permanent traffic speed limit of 20km/hr
 - Remove existing upended rails on the south side of the street and replace with new high quality, well designed bollards, preferably lower, with lighting integrated into their design
 - Remove on-street parking on the north side and introduce a set of bollards, such as seating, along this edge demarcating a 1.5m footpath. The footpath width along the south side will be constrained by the location of the electricity poles and has to remain as it currently is. This leaves a clear carriageway of approximately 6.5m width. Note this way is a shared zone and priority is for pedestrians at all cases.
 - Incorporate some well-designed seating that is well integrated into the overall streetscape, primarily concentrated at the east and

- west ends of the street, where pedestrian activity is focused - station entry and Coles.
 - Introduce signage at various locations along this street indicating speed limits and pedestrian priority over vehicles. Recommended locations for the signs include: railway station entry/exit, east and west ends of the street.
 - Review the pavement of this street to ensure consistency along its length. Part of its north side incorporates some blue stone paving. The street does not fall in a Heritage Overlay and the blue stone should be examined and if possible either extended along that entire side or removed all together and replaced with the same paving material for the whole street.
- 3. Install good quality signage to direct people to East Richmond station from Swan Street
- 4. Install devices to slow traffic entering the transport interchange – (e.g. road surface treatment). This should be designed to send a clear signal that this is a space where pedestrians dominate
- 5. Improve seating and lighting at the intersection/near stops.
- 6. Install 'Real-time' train and tram information on both Church and Swan streets at major points, in particular the junction of Swan and Church Streets.
- 7. Install a pedestrian crossing to the southbound Church Street tram from the station exit.
- 8. Where possible widen the footpaths to accommodate additional walking traffic.
- 9. Improve pedestrian access under the railway, and in particular improve pedestrian amenity in the railway underpasses such as better lighting, upgraded surfaces where needed.
- 10. Maintain and improve pedestrian bridge to South Yarra Station across the Yarra River. Works include the provision of disabled access, upgraded path of travel, clean up graffiti and signs on both sides on Yarra St in Stonnington and Green and Coddys Streets in Yarra.

If East Richmond Station environs were upgraded in the way suggested here, access would be improved for shoppers. It would also be improved for employees who commute to the Church Street, Cremorne and Burnley areas and use the lines that serve the Eastern suburbs – the Belgrave, Lilydale, Alamein and Glen Waverley Lines.

For employees commuting on the Sandringham, Frankston, Cranbourne and Pakenham lines, disembarking at Richmond station is feasible, though it involves a difficult and lengthy walk. A better alternative for this group would be to use South Yarra Station, which is within a 10-12 minute walk or tram ride from the southern part of Cremorne and the Church Street employment areas. Access from South Yarra Station could be either via Toorak Road and

Chapel Street (on foot or by tram - or both), or via the footbridge over the Yarra River/SE Freeway which is beside the rail line.

This bridge route would require signage both in Stonnington and Yarra, at South Yarra Station, at both ends of the bridge and in Church Street. It would also require off-site publicity – on maps, for example – but represents a real opportunity to improve this route to benefit to pedestrians. The route would complement the pedestrian improvements suggested for East Richmond Station and provide commuters to the Cremorne/Burnley area with public transport or walking options from both the East and SE suburbs of Melbourne.

5.3.1b Software/Programs

11. Encourage and assist businesses or complexes with large employment numbers to produce Green Travel Plans, to complement the proposed improvements to the walking environment in this area.
12. Footbridge signage as described above from Stonnington to Yarra.
13. Print and distribute a clear local map showing the walking network.
14. Generate data on 'walk spend' in Swan and Church Streets to get support of traders

5.3.1c Application to other areas

The treatments recommended for East Richmond could be applied to many other station areas in the City of Yarra. Most stations in Yarra link with tram and/or bus services (e.g. Burnley, Victoria Park, North Richmond, Clifton Hill, as well as Richmond and East Richmond) and should be promoted and developed as 'transport interchanges'.

It is important to stress that more walking will result in more public transport use and less car use. Supporting public transport fits with the Council's wider environment and transport policies.



-  Pedestrian path
-  Shared path
-  Bike path
-  Major shopping strips
Cluster shopping
-  Case study boundary
-  Major pedestrian barrier
-  Key Note [see text]
-  Education / School
Primary
-  Transport-tram
rail
bus
-  Railway station 800m radius
Tram Stop 400m radius
-  Public toilets

1. Improve the area surrounding Richmond Station to optimise the use of the station by a variety of user groups. Proposed actions include:
 - Need to re-open the north exit/entrance and ensure it is kept open all the time.
 - Improve pedestrian link/access from the station across Punt Rd by creating a pedestrian overpass attached to the rail bridge, which could be integrated in any development for the station.
 - Provide improved public access under the railway as part of any redevelopment of Richmond Station.
 - Install good quality signage to the station from different directions on Swan St and Punt Rd.
 - Improve lighting around the station, especially entries and exits.
2. Improve the area around East Richmond Station and the station itself to optimise its use. Proposed actions include:
 - Review the area around Swan/Church Intersection, upgrade footpaths and highlight the area as an area where priority is for pedestrians.
 - Provide for crossing between tram stops at station entrance on Church St.
 - Upgrade the railway underpass and improve lighting, and if possible, encourage the redevelopment of this station to incorporate different uses along both sides of the underpass to add activity and improve security and surveillance.
 - Upgrade Railway Place. The street needs urgent attention and the following works are recommended:
 - Nominate the street as a shared zone, with a permanent traffic speed limit of 20km/hr;
 - Remove existing bollards on the south side of the street and replace with new high quality, well designed bollards, preferably lower, with lighting integrated into their design;
 - Delete on-street parking on the north side and introduce a set of bollards, or other elements along this edge demarcating a 1.5m footpath. The footpath width along the south side will be constrained by the location of the electricity poles and has to remain as it currently is. This leaves a clear carriageway of approximately 6.5m width. Note this way is a shared zone and priority is for pedestrians at all cases.
 - Incorporate some well designed seating, primarily concentrated at the east and west ends of the street, where pedestrian activity is focussed - station entry and Coles.
 - Introduce signage at various locations along this street indicating speed limits and pedestrian priority over vehicles. Recommended locations for the signs include: railway station entry/exit, east and west ends of the street.
 - Review the pavement of this street to ensure consistency along its length. Part of its north side incorporates some blue stone paving. The street does not fall in a Heritage Overlay and the blue stone should be examined and if possible either extended along that entire side or removed all together and replaced with the same paving material for the whole street.
3. Install signage along Swan St, to direct pedestrians to East Richmond Station
4. Install "Real Time" train and tram information on Church St at major points, in particular the junction of Swan and Church Streets.
5. Improve pedestrian access under the railway, and in particular improve pedestrian amenity in the railway underpasses. Measures include: better lighting, upgraded surfaces where needed etc.
6. Maintain and improve pedestrian bridge to South Yarra Station across the Yarra River. Works include the provision of disabled access, upgraded path of travel, clean up graffiti and introduce signs on both sides on Yarra St in Stonnington and Green and Coddys Streets in Yarra.
7. Work in partnership with businesses and educational institutions to develop Green Travel Plans, in particular the Schools in the area.



Richmond/Richmond East Case Study

EIWS 2005

6. IMPLEMENTATION OF EIWS ACTIONS

6.1 Building on Council's current actions

This section of the EIWS contains two tables; one outlines priority action areas for all of Yarra (6.2) and the second illustrates the Council Branches which either have responsibility for or can contribute to implementing the various recommendations (6.3).

The EIWS should not be seen as a separate 'bolt-on' strategy that is an addition to existing strategies and policies. It involves a change in Council priorities and some changes in the ways that departments allocate expenditures – giving higher priority to the needs of those on foot and other sustainable transport options and a lower priority to other modes.

The development and implementation of Local Area Traffic Management schemes are prime examples of opportunities to support the needs of pedestrians, especially if they are given priority over cars and footpath and access crossing improvements are made a priority within these schemes. Any LATM's planned should be consistent with the principles of improving pedestrian amenity and priority and are additional to our recommendations.

The implementation process will also involve negotiations with external stakeholders, including developers, businesses, VicRoads, and (in the case of signage for South Yarra Station) the City of Stonnington. It will also involve entering into discussions with local schools, retirement communities, the Division of General Practice/Doctors practicing in the City of Yarra, major employer organisations, train and tram operators and others who can contribute resources to the implementation of their elements of the Strategy. The initial approaches to these organisations will need careful planning so that the benefits, for example of more local shoppers in a quality public realm, calmer streets, more passengers, healthier children, healthier staff and less demand for parking, are made clear to them from the outset.

The need for 'new' funding for the implementation of the Strategy will depend on:

- The extent that existing City of Yarra Department funds can be re-oriented to supporting the Strategy;
- The extent that external stakeholders will contribute resources to the implementation of their elements;
- The capacity of Officers to source external funding, from organisations such as VicHealth, Department of Victorian Communities (DVC) and other grant sources (as identified in Appendix 1); and
- The capacity of the Council to identify and acquire additional funding sources.,

The cost of the implementation of the Strategy will be dependent on the above factors and the extent to which Council determines to construct the more expensive 'hardware' components, such as 'at grade' road crossings in major retail streets and the repair or re-installation of footpaths that are unsafe.

Many of the elements, such as maps, signage, seats, toilets and the various walking support programs are not high-cost items. Staff will be needed to manage the implementation of the Strategy, but the responsibility for different elements can be spread widely across the Council. In the short-term (years 1 & 2 of implementation) it will be easier to implement the

lower-cost hardware and some of the programs, allowing more time to plan and design the more expensive elements for example, new pedestrian crossings, raised footpaths along activity centre streets.

6.2 Yarra - wide Priority Actions

Table 1 A summary of priority actions
(developed from the consultation process)

ORDER OF PRIORITY		DESCRIPTION	
1	Pedestrian Information	• Signage	Especially around stations
		• Pedestrian maps	Whole of Yarra plus local maps
2	Traffic speed and volume	• Road crossings	Install more crossings, reduce 'detour crossings, improve responsiveness of pedestrian lights
3	Footpaths	• Quality	Increase widths and maintenance
		• Clutter	Enforce Footpath Trading Policy and garbage bin removal; Audit signage to remove incorrect and unnecessary signs
4	Access Crossings	• DDA compliance	Ensure access crossings conform to DDA standards
5	Pedestrian Facilities	• Seating	Develop a seating policy to ensure current seats are retained and more seating is installed where possible including in bus/tram shelters
		• Lighting	Improve - especially around stations and along routes which link major attractors
		• Toilets	Develop a toilet strategy to ensure more toilets which are DDA compliant and self cleaning
		• Drinking water	Installation of water fountains which include water bowls for dogs
6	Policy focus	• Pedestrian emphasis	Ensure people are prioritised over private vehicles especially where competition for funding or space may arise

6.3 Which Council departments are affected?

Table 2 A summary of Council department involvement

ACTION		RESPONSIBLE BRANCH (ES)
BUSINESSES	Encourage and support development and implementation of Green Travel Plans for businesses	Urban Planning; Economic Development.
DATA	Fund data collection to identify importance of 'walk-in' spend (including cycle and public transport) vs. car drive-in spend in retail areas	Economic Development; Urban Planning.
ENFORCEMENT	Continued enforcement of existing Footpath Trading Policy regulations	Building and Regulatory Services
FOOTPATH MAINTENANCE	1) 'Clutter' reduction 2) DDA compliance of access crossings	Infrastructure; Assets
FOOTPATH CLEANING	Special reference to autumn/winter leaf-fall	Environment and Recreation Services.
HEALTH	Encourage adoption of 'Active Script' program by GP's	Family and Children's Services
LAND USE	Continue to develop land use and transport policy that creates a supportive environment for walking	Urban Planning
MAPS	Production and distribution of pedestrian maps. 1) Whole of City of Yarra pocket maps 2) Local area pocket maps 3) Bristol ⁵ style fixed maps	Urban Planning; Infrastructure; Economic Development.
PEDESTRIAN FACILITIES	1) Seating 2) Lighting 3) Toilets	Urban Planning; Environment and Recreation Services; Infrastructure; Assets; Culture and Community Planning
ROAD CROSSINGS	1) Improve road 'crossability' – medians 2) Pedestrian light responsiveness, 3) Pedestrian light - duration of crossing time 4) Installation of new crossings	Infrastructure.
RUBBISH BINS	1) Ensure rubbish bins do not block footpaths before and after emptying	Environment and Recreation Services
SCHOOLS	Encourage and support development and implementation of School Travel Plans	Urban Planning; Environment and Recreation Services; Family and Children's Services.
SIGNAGE	1) Production and installation of Bristol-type ⁵ maps 2) Audit and production of directional signs	Urban Planning; Infrastructure; Assets.
WALKING CLUBS	Stimulation of local Walking Clubs	Environment and Recreation Services. Culture and Community Planning.

⁵ See Appendix 7

APPENDICES

APPENDIX 1 - THE POLICY AND PROGRAMS CONTEXT FOR WALKING

'Walking' has only relatively recently emerged onto the policy agenda for most levels of Government and other organisations in Australia. The recognition that encouraging and supporting walking can contribute positively to a range of problems is still developing, in spite of the fact that it is the most popular form of recreation, a major element in preventative medicine and the most efficient and emission-free form of transport. Developing walking is a relatively low-cost activity. Currently it is supported by a number of new programs and policy initiatives.

1.1 Federal Government involvement in walking

At the Federal level there is limited interest in walking from Department of Transport & Regional Services (DOTARS). However, the Department of Environment and Heritage (DEH) has committed to providing funding for 'travel behaviour change' programs under the Greenhouse Gas Abatement Program (GGAP). The Greenhouse Gas Abatement Programme is a \$400 million Australian Government initiative designed to reduce Australia's net greenhouse gas emissions by supporting activities that are likely to result in substantial emission reductions. The travel behaviour change project will involve more than 186,000 households participating in four States and Territories over five years. It is estimated that it will result in a reduction of more than 3.85 billion vehicle kilometres traveled and a reduction of 1.23 million tonnes of carbon dioxide equivalent (CO₂-e).

The DEH believes that a sustainable approach to transport is vital to Australia's future because the transport sector accounts for around 76 million tonnes or 14 per cent of Australia's total net greenhouse gas emissions.

Victoria is one of the main recipients of Commonwealth Grants from this program. It will receive a total of \$2m over 4 years and contribute a further \$3.8m itself.

1.2 The Victorian State Government Policy and approach to walking

The interest in walking at the State level has existed for many years. However, for much of that time the dominant perspective was based on a concern for 'safety' of road users. The 'Safe Routes to School' and concerns for the road safety of the elderly through 'Walk with Care' have been long-standing programs. However, one focus of these types of programs was on warning people of the dangers of walking, while another was on discouraging 'risky behaviours' such as crossing roads in the wrong places. Often this meant erecting barriers. Most road safety strategies blamed the pedestrians for their own deaths.

Over the last 20 years of the 20th Century rates of walking (to school, to local shops and to public transport) declined dramatically. Between 1970 and 1994 walking to education institutes in Melbourne declined from 50% to 20%, while walking to work, shopping and public transport also appears to be declining. In part this has been due to the reduced cost of owning and running cars and the 'motorisation' of society as well as the planning and

transport policies that accommodated (and encouraged) car use. However, the walking policies of the time also contributed to this decline.

Within this broader context there are a number of trends and issues to which the current State Government (and governments in most developed countries) is paying increased attention. They include:

- car dependency, traffic congestion and insufficient choice in more sustainable modes of transport
- air pollution, greenhouse gas emissions and climate change
- increasing health problems (including obesity) in the community
- the ageing of the population
- the equity implications of current development patterns and transport systems.

Policy has begun to change. The introduction of the 50km default speed limit and the 40km speed limits near schools and in some retail areas, demonstrate the Government's acceptance that traffic speed is a major safety issue. Streets can and should be made safer for pedestrians. (The 50km limit has reduced pedestrian accidents by 22% in Melbourne) In addition there are a range of State funded programs, including:

- TravelSmart Education – for schools and higher education establishments;
- TravelSmart Communities – which will be rolled out, eventually, to over 500,000 households in central/inner Melbourne;
- TravelSmart Workplaces – providing advice on Staff Travel Planning;
- A range of programs to support public transport to schools (which usually includes more walking) e.g. Travel On, Get on Board.

(A comprehensive listing of other programs funded by a variety of State government Departments, agencies and other groups and organisations is included within this section the report.)

The change in State policy towards walking was first articulated in Melbourne 2030 – released in October 2002. This document acknowledged the importance of walking as a mode of travel and sought to improve the quality of the environment so that it encouraged and assisted pedestrians, people with prams and those in wheelchairs. Most of the M2030 policies, including urban concentration, the development of Activity Centres and Transit Cities, urban growth management, fairness and equity and a better physical environment, depend on increasing the share of walking in Melbourne.

The most recent Metropolitan Transport Plan (MTP) – Linking Melbourne (released late 2004), also acknowledges the need to improve the safety of pedestrians and cyclists because 'safety for users of these modes is fundamental to increasing transport choice and to fostering a more sustainable transport system' (MTP page 15). There is a specific Strategy aimed at improving (BOTH) safety and access for pedestrians and cyclists which aims to provide safer travel and to increase the number of people walking and cycling through improved road management of existing road space and the provision of more off-road paths.

The list of Metropolitan Transport Plan 'priority actions' for pedestrians is included below. However, at this stage the Government has not yet completed an implementation and funding strategy to go with it. Nevertheless, it would seem that the MTP potentially provides a number of opportunities for real change in the City of Yarra. They include:

- Introduce more appropriate speed limits in shopping strips. (*Some centres - Bridge Rd, Brunswick Street, Johnson Street, Smith Street - now have 40Km speed limits, but the program could be expanded within the City of Yarra*)
- Improve the amenity of areas of intense pedestrian activity alongside arterial roads.
- Improve safety and provide more equitable access for pedestrians in high-use areas such as Transit Cities and multi-modal facilities via the Walk Safe program and other innovative and cost-effective measures.
- Establish a program to provide greater priority for pedestrian access across busy arterial roads which sever community activities.

Other Strategies in the MTP also include a number of initiatives with the potential for implementation in the City of Yarra, such as:

- Improve the safety of people at and around tram and bus stops, through road improvements.
- Review road rules in relation to trams and other road users to ensure measures are in place to protect public transport users at tram and bus stops, and reduce the need for sudden braking by public transport vehicles.
- Launch an education and enforcement program concerning road rules related to trams to reduce the number of incidents involving cars passing stationary trams.
- Introduce CCTV on trams to deter and detect motorists who endanger passengers by passing stationary trams or otherwise cause danger to public transport users.
- Provide comparative travel time information on congested routes that offer efficient public transport alternatives, to encourage a shift in mode.

(These Strategies will be examined to identify where and how the City of Yarra may be able to benefit from them in the development of this project)

Finally, the MTP states that:

'The Victorian Government aims to encourage people to use public transport, walk or cycle rather than use the car, where this is practicable. This will require a significant shift in travel behaviour.'

Travel demand management is any measure that is aimed at modifying travel behaviour to reduce or redistribute travel demand. Although people generally recognise the environmental benefits of travel by public transport or non-motorised modes, they are more likely to modify their travel behaviour when there are direct personal benefits – such as cost savings or a healthier lifestyle. The TravelSmart program helps people to explore and assess their transport options.

In the future, it will be increasingly important for regulatory structures, including pricing, to reflect the full economic, social and environmental costs of transport. Around the world, a number of pricing initiatives have been introduced to manage car travel in congested or

sensitive areas. These initiatives will be monitored, and their implications for Melbourne examined.

Initiatives in car sharing will also be monitored with interest and encouragement given to local government to assist such schemes’.

Given these policy statements the prospects for innovative measures that support walking seem good.

A further change in state policy was announced in November 2004. The government commenced an intensive public awareness campaign ('Go for your life'), which will spearhead a \$22 million State Government strategy aiming to get Victorians off the couch, and actively involved in their local communities.

The strategy contains initiatives across a range of Government areas, including health, sport and recreation, community building, seniors and education. The \$22 million in new funding includes:

- \$10 million to prevent obesity and diabetes
- \$10 million to promote physical activity and
- \$1.9 million to promote healthy and active living for senior Victorians.

As part of this campaign the Minister for Sport and Recreation announced a new grants program - the 'Go for your life' Physical Activity Grants, in February of this year. The program, administered by Sport and Recreation Victoria, encourages increased participation in physical activity by all Victorians, particularly those that are currently inactive or disconnected from their communities.

Grants of up to \$30,000 per year, for up to two years (maximum grant \$60,000), are available to incorporated, not-for-profit community organisations and Local Government Authorities. A total grant pool of \$1.13 million is available for the period to June 2007.

In addition, 'Active Living projects' have been funded by the Office of Senior Victorians (Now located in the DVC) through Primary Care Partnerships. The funding aims to increase the capacity of professional organisations and community groups to provide appropriate, accessible and attractive programs to keep older people involved socially and physically. The broad objectives are to:

- **Address barriers to participation** and improve older persons' access to active living programs.
- **Build networks** which involve older people and enhance links between the health, sport and recreation and community sectors.
- **Improve referral and support** for older people to participate in active living programs, especially those with a physical activity focus.
- **Advocate for supportive environments** that promote active living by older persons.

Support for walking is an important component in many of these initiatives and the City of Yarra could use them to advantage the residents and further the aims of this Project.

1.3 Other Organisations and their approach to walking and physical activity

Some of the leading non-government organisations in the area of supporting walking are VicHealth, Vicfit, Environment Victoria and the VLGA

VicHealth has a number of programs, with funding attached to them. The best known is support for the Walking School Bus, which the City of Yarra is currently involved in. Many Councils and schools have used their WSB program to expand into the wider 'School Travel Planning' process.

A recently announced VicHealth program is 'Metro ACTIVE'. VicHealth would like to increase participation in physical activity through community sport and active recreation in the metropolitan area by working with local government through the sport and recreation unit or equivalent.

VicHealth has been seeking applications from local government authorities in the metropolitan area to undertake demonstration projects which develop and apply an integrated planning approach to increase, through community sport and active recreation, levels of participation in physical activity, including walking.

Local government is a major contributor to environments that support physical activity. Its planning and legislative responsibilities give it the ability to influence the spaces and places people live, play and work. This funding aims to explore how local governments in the metropolitan area can work with effective internal practices and in partnership with community organisations to create 'active people - active places'. The City of Yarra could be using this funding to advantage.

VicFit has a number of programs that support walking. The 'Active Script' program, which began in 1999, is aimed at increasing the number of Victorian General Practitioners who deliver physical activity advice to their patients – often involving more walking. The Active Script Program was conceived out of a need to involve General Practitioners in promoting and supporting increased physical activity levels in Victorians.

The program is currently jointly funded by the Commonwealth Department of Health and Ageing and the Department of Human Services and is one of a variety of integrated physical activity programs offered by Vicfit. Councils can support the program by informing local residents of its availability and encouraging them and local doctors to participate in it.

The Neighbourhood Walk & Talk program is Victoria's largest free walking program. There are around 80 Walk & Talk Coordinators encouraging and motivating 4,000 men and women to be active everyday. The Walk & Talk program is a low cost, self help program that encourages participation in regular activity. Of significance is that it primarily promotes walking, along with other appropriate physical activity. In addition, it introduces a support structure for participants to foster continued involvement.

Environment Victoria offers a number of programs to schools and retirement villages. In the latter they provide TravelSmart-type advice to residents who have located in a new environment. At schools they offer 'Smogbusters - Day of Change' program which is a curriculum based program that puts learning into practice and works with students to demonstrate how individual's actions affect the environment.

The City of Yarra has enabled a number of schools to participate in this program and it will hopefully be expanded to all schools on a regular basis.

The VLGA 'Local Government Integrated Transport and Mobility Project' was designed to further develop and enhance the approaches in use by local government to improve the mobility of communities through integrated transport planning.

The project sought to maximise local government uptake of opportunities provided by State government initiatives in transport planning. The project was funded by Department of Infrastructure. The project identified:

- How local government undertakes transport planning at present, and the context in which these activities take place;
- How transport and land use planning activities interface with the provision of mobility and other community goals of liveability and sustainability;
- The current and potential role of local governments in transport planning and providing for the mobility of their communities
- The relatively new emphasis of integrated transport planning, whereby local governments explore the broader range of transport planning and mobility provision across all modes, and also consider the integration of transport with land use planning.

The end product was a 'Transport Planning Toolkit' identifying, amongst other things, how walking can be integrated into Local Government Transport Planning.

1.4 The City of Yarra

The City of Yarra recognised the relevance of planning for pedestrians in the Yarra Environment Strategy 2000.

The Strategic Goal of the Transport and Access element of the Environment Strategy is: ***To reduce dependence on private transport and promote alternative transport options.***

The City firstly identified what it could do to achieve this:

1. Support the development of an integrated approach to transport management for the metropolitan area and for the City of Yarra.
2. Support a metropolitan wide decrease in the use of the motor vehicle and a commensurate increase in the use of sustainable transport options. Particular attention should be given to minimising the use of the car for trips that can be made by bike, foot or with public transport.
3. Support, facilitate and encourage the greater use of sustainable transport options by those living and working in Yarra.
4. Minimise the impact of the car on the environment and local community.

It then identified how it could do this. The recommendations included:

1. ***Raise awareness of the issues surrounding the use of the car within the community and promote a reduction in multi-car ownership in Yarra households***
2. ***Create the right incentives to reduce the community's reliance on the car and to encourage the use more sustainable forms of travel***
3. ***Work with others to improve the public transport system for current and future users***
4. ***Continue to make cycling a visible, attractive, and safe way to travel***
5. ***Continue to make walking an enjoyable and safe way to travel***

The detailed recommendation included:

Review the former City of Collingwood's Pedestrian Strategy and adapt to the rest of the City of Yarra.

Together with other Councils, advocate for reduced pedestrian waiting times at crossing signals.

6. ***Raise the community's awareness of how to minimize the environmental effects of the car. e.g.:***

Through the community awareness program, inform the community about ways to reduce the environmental impact associated with the use of the car e.g. through purchasing decisions, benefits of on-going maintenance etc.

7. ***Ensure that organisational transport practices are ecologically sustainable. e.g.:***

Develop an incentive scheme to encourage staff and Councillors to travel to work by public transport, bike or foot. (E.g. investigate the potential of offering subsidized public transport fares).

Promote the use of public transport wherever this is a viable alternative to the car.

Investigate the feasibility of providing additional bicycle-parking facilities outside the Town Halls.

Investigate the costs/benefits of converting Council's truck fleet from diesel to compressed natural gas or LPG.

Investigate the feasibility of offering shower/locker facilities in work areas.

Since then the Council's understanding and approach to pedestrian issues has further developed and strengthened. The 2005-2009 Council Plan contains a full listing of the Council's current Strategies, which are outlined in 3.1 The City of Yarra Policy Context.

1.5 New Approaches to 'Providing for Pedestrians'

A recent and comprehensive overview of 'best practice' in improving the physical environment for pedestrians is contained in the work undertaken by Rodney Tolley for the Department of Infrastructure in 2003 - 'Providing for Pedestrians: Principles and Guidelines for Improving Pedestrian Access to Destinations and Urban Spaces'. It is available on the DOI website. That document contains references to most of the major studies and reports, undertaken to that date, illustrating the measures that cities around the world have taken to address and redress their problems with pedestrian safety, accessibility and amenity. Examples from that Report include:

- Vehicle speed reduction in the City of Kingston-on-Hull, resulting in a significant reduction in pedestrian deaths and injuries, especially amongst children. Most residential neighbourhoods have 20mph (30kph) speed limits.
- The removal of the 'inner ring road' in Birmingham, reducing traffic volumes, improving pedestrian access and resulting in a major economic revival of that city centre.
- The impact of 'safe routes to bus stops' and the growth of patronage on London buses with safe access stops.
- The impact on school travel when Walking School Bus routes are 'audited' and problems of road crossing, traffic light responsiveness and other local barriers are removed from the routes.

A more recent Report is the Heart Foundation's 'Healthy by Design: a planners guide to environments for active living' (2004). This guidebook won the PIA National Award for Planning, and provides a comprehensive listing of the issues that need to be addressed to design (or re-design) environments for healthy, active living, especially the needs of pedestrians. They include:

- Design considerations for safe, stimulating, accessible walking and cycling routes.
- Creating a 'legible' street network, including safe places to cross roads, clear and direct routes to destinations, and providing amenities for comfort and convenience – seating, toilets, lighting, shade, signage, low fencing for passive surveillance, etc.

There is a relatively simple matrix of guidelines for the design of features for most issues such as lighting, signage, seating, etc. The document concludes with a number of case study examples from around Victoria where improvements have been made.

However, the particular measures that will need to be implemented in any specific location need to result from detailed pedestrian auditing of the local area, as well as input from the local community. Current best practice in pedestrian auditing is the '5C's' approach.

The '5C's' is a checklist of questions to be asked (and answered) at all points along all routes throughout a study area. The basic elements of the checklist are:

Is the route Connected?

e.g. are there good connections to public transport and other destinations?

Is the route Comfortable?

e.g. are there good footpaths, lights, seats etc?

Is the route Convenient?

e.g. are there good and safe crossings?

Is the route Convivial?

e.g. are the routes interesting and free from threats?

Is the route Conspicuous?

e.g. is the route 'signed' and easy to follow?

(Adapted from Llewelyn-Davies & the National Retail Planning Forum, *'Going to Town: Improving Town Centre Access'*, London, 2002)

APPENDIX 2 - RESEARCH REVIEW

Around the world, communities are seeking ways to encourage people to walk more, to make local and civic areas more walkable and to turn the built and natural environments into areas in which people want to walk. Walking is good for people, communities, the environment, the economy and transport systems. Cities that foster the development of 'living streets' and good walking environments are more likely to be successful economically, socially, environmentally and culturally.

Cities that are good for walking are also good for sitting, meeting, talking, shopping, socialising, spending and watching the world. Cities that provide for pedestrians are places where people want to be.

Encouraging and facilitating walking has beneficial implications for those interested in areas as diverse as:

1. **Health outcomes** – Walking is the best-value form of exercise for the prevention (and cure) of many major health problems including obesity, diabetes, heart-conditions and others.
2. **Recreation** – walking is the most popular recreation activity in Melbourne (Based on a 2004 DVC/SRV Survey) – and its potential for growth is significant.
3. **Tourism** – walking in both cities and elsewhere is a major element in the tourism sector. Most tourists are pedestrians.
4. **Social Inclusion** – walking is free and a mode available to almost all ages and groups in society, regardless of income.
5. **Social cohesiveness** – more walking, pedestrian-filled streets and good pedestrian environments encourage social interaction and sense of community.
6. **Improved road/community safety** – good walking environments are safer for all users as drivers slow down in 'people places' – and drivers are safer too as they slow down and have fewer collisions with each other.
7. **Reduced air pollution** – walking reduces short car trips, which are 4 times more polluting than longer car trips, per km.
8. **Reduced Greenhouse Gas (GHG) emissions** – GHG emissions are based on fuel use. About 40% of all car trips in Metropolitan Melbourne (and the City of Yarra) are less than 3kms, (VATS data), many of which could be substituted by walking trips.
9. **Reduced traffic congestion** – Cars making short trips during peak hours make up over 30% of the total vehicles on the roads. Walking can replace many of these.
10. **Improved public transport patronage** – more walking leads to more public transport use, especially when walk access to public transport stops is made safer and easier
11. **Advantages for people with disabilities** – a good walking environment is better for people with disabilities, as roads are made safer and easier to cross, footpaths are clear of obstructions and in good condition, etc. These improvements make walking easier for all pedestrians
12. **Advantages for special age groups** – good walking environments make it safer and easier for children to access schools and the increasing ageing population to reach local services, shops and friends
13. **Local economic development** – walking to local shops is good for the economy. In the City of Yarra between 65-85% of turnover in the 5-retail/activity centres in Yarra

- (Smith, Victoria, Swan and Brunswick Sts. and Bridge Road) comes from local residents and workers. Most local residents (66%) walk to their centre. Walk access to and within activity centres is important economically.
14. **Future growth** – population growth in the City of Yarra will increase the potential for more traffic and congestion, resulting in the need for good walking access (and less local car use) to all destination types (schools, shops, public transport stops, etc)
 15. **Cost** – providing good walking environments and programs that encourage walking are considerably less expensive to Councils, the State Government and private providers than building/maintaining roads and car parking spaces.

There are a wide range of barriers to walking and numerous ways to overcome these problems and the barriers to walking. Methods that are known to encourage and enable more walking and to overcome the many barriers to walking are becoming more commonplace.

'Travel behaviour change programs' are proven to be successful and have a high benefit-cost ratio. Community TravelSmart campaigns (for example) rely on providing information to people about alternatives to using their car and usually reduce car trips by 10-15% and increase walk, cycle and public transport trips by 20-25%, without any changes to the environment or walking infrastructure. There are a wide range of these programs covering most settings and age groups.

Recent experience with the Victorian 'School Travel Planning Project' (as described below) suggests that schools which develop and implement good quality, locally appropriate School Travel Plans can reduce am peak hour chauffeuring by 25-50%. Each Plan is specifically designed by and for the school community within the local environment. They generally include a mix of both new infrastructure (often as the result of a Local Area Traffic Management –LATM- plan) and travel behaviour programs (the introduction of a Walking School Bus), events (Walk to school days, bike to school days) as well as innovative local initiatives such as the formation of class walking groups.

However, it is important to stress that the revival in interest in planning for pedestrians is quite recent and there are only a limited number of data sets that can be used to demonstrate the effectiveness or otherwise of particular interventions. There is a gap between showing that something is popular amongst walkers, or increases the enjoyment had by existing walkers and demonstrating that it actually results in car users leaving their car at home and becoming walkers for particular trips. Without doubt many of the infrastructure improvements may be **necessary preconditions** for increasing walk trips, lengths and frequencies. However, they are not **sufficient on their own** to do so.

The example of bicycle planning is relevant. Releasing the potential in a town or city for more bicycle use depends on the existence of a local cycle plan, an important component of which would be building cycle facilities, such as tracks and paths. But there is now plentiful evidence to show that while such facilities can make cycling safer and are popular, they do not in themselves lead to more cycling.

It is necessary to distinguish between 'hardware' (physical infrastructure such as bicycle paths and parking facilities) and 'software', such as communication strategies to change attitudes; education programmes to improve cycling proficiency; funding and staffing programmes to unlock resources; and research and monitoring to improve programme

delivery. Clearly, core elements of hardware, such as cycle parking facilities, signage and so on is indispensable. But it is now clear also that a hardware strategy cannot be successful without some software components.

The architect of the Netherlands' National Bicycle Master Plan observed that:

'Clearly expansion and improvement of the infrastructure does not necessarily increase the use of bicycles'
(Welleman, 1997)

It seems highly likely that the same issues are relevant to encouraging walking. Thus in recent years, there has been growing interest in a range of initiatives, which are now widely described as 'soft' transport policy measures. These seek to give better information and opportunities, aimed at helping people to choose to reduce their car use while enhancing the attractiveness of alternatives. They are fairly new as part of mainstream transport policy, mostly relatively uncontroversial, and often popular. They include:

- Workplace and school travel plans;
- Personalised travel planning, travel awareness campaigns.
- Public transport information and marketing;
- Car clubs and car sharing schemes;
- Teleworking, teleconferencing and home shopping.

Most of these programs are targeted at reducing car use and increasing other modes of travel, including walking. However, it is now recognised that reducing car use and increasing cycling and public transport use encourage and facilitate more walking in safer environments. Active transport modes work together to support each other.

It has been shown in a number of reports (most recently – *'Smarter choices – changing the way we travel'* the Department for Transport, UK, 2004) that a range of soft measures coupled with limited, essential infrastructure improvements can change travel behaviour and reduce urban peak period traffic volumes by between 11-21%.

The UK Department for Transport report observes:

'These projected changes in traffic levels are quite large, and would produce substantial reductions in congestion. However, this would tend to attract more car use, by other people, which could offset the impact of those who reduce their car use unless there are measures in place to prevent this. Therefore, those experienced in the implementation of soft factors locally usually emphasise that success depends on some or all of such supportive policies as re-allocation of road capacity and other measures to improve public transport service levels, parking control, traffic calming, pedestrianisation, cycle networks, congestion charging or other traffic restraint, other use of transport prices and fares, speed regulation, or stronger legal enforcement levels.'

The main conclusion is

‘that, provided they are implemented within a supportive policy context, soft measures can be sufficiently effective in facilitating choices to reduce car use, and offer sufficiently good value for money, that they merit serious consideration for an expanded role in local and national transport strategy.’

As a result it is our conclusion that a successful strategy to encourage and increase walking in the City of Yarra will need to encompass a range of different components. They fall into 4 main categories:

1. The implementation of policy development and co-ordination – within Council across all relevant Departments (health, planning, transport, etc.) as well as between Council and other bodies, including schools, traders groups, employers, etc.
2. The development of ‘Hard Infrastructure’ – pedestrian signage, footpath, crossover, roundabout changes and some redevelopment (e.g. rail station approaches)
3. The development of ‘Soft Infrastructure’ – maps, pedestrian light responsiveness, speed limits, etc
4. The implementation of ‘Programs’ – (Soft Measures) such as TravelSmart, Walking School Bus, events (Walk to Work days), workplace programs, Active-Script, information, promotion campaigns, etc – as described below in Chapter 6 of the report.

All of these are supported by the collection of better data, the conduct of research and the evaluation of the outcomes of program and infrastructure implementation.

APPENDIX 3 - DATA ANALYSIS

There is limited available data on walking for most places in Victoria. The Victorian Activity Travel Survey (VATS) is one source of this data. VATS is a data set collected by RMIT University from 1994 to 2002 providing information on personal travel and out of home activity. It is based on a survey of 10,000 households across the Melbourne metropolitan statistical district and provides the most comprehensive travel data information for Melbourne. The VATS data were collected through a process of asking a 'stratified sample' of families and individuals to keep a diary of their travel, by location, by mode, by distance and by purpose for up to 1 month. The aggregated data from a large sample of diary keepers has been used to assemble data on where, how and why people travel in Melbourne.

3.1 VATS Data

VATS data for the City of Yarra is presented in Table 1. It shows the average numbers of daily trips that were made either wholly within or finished in the City of Yarra, during the late 1990's.

Average Daily trips in Yarra by Mode, Purpose and Travel Distance⁶

TRIPS AS CAR DRIVER PER DAY

	All Distances		Less Than 1km		1km to 2km		2km to 3km		More than 3km	
	Number	%	Number	%	Number	%	Number	%	Number	%
Work	66,615	100%	11,345	17%	6,431	10%	7,005	11%	41,834	63%
Education	2,518	100%	278	11%	380	15%	0	0%	1,860	74%
Shop/P.B.	46,251	100%	12,148	26%	6,933	15%	2,789	6%	24,381	53%
Rec./Soc.	24,532	100%	3,904	16%	1,920	8%	1,409	6%	17,300	71%
Link to PT	1,737	100%	410	24%	432	25%	0	0%	895	52%
Total	141,653	100%	28,084	20%	16,095	11%	11,204	8%	86,270	61%

TRIPS AS CAR PASSENGER PER DAY

	All Distances		Less Than 1km		1km to 2km		2km to 3km		More than 3km	
	Number	%	Number	%	Number	%	Number	%	Number	%
Work	8,142	100%	1,312	16%	836	10%	1,585	19%	4,409	54%
Education	4,018	100%	1,628	41%	926	23%	84	2%	1,379	34%
Shop/P.B.	17,006	100%	5,090	30%	2,038	12%	1,323	8%	8,556	50%
Rec./Soc.	11,883	100%	2,463	21%	1,940	16%	704	6%	6,775	57%
Link to PT	4,508	100%	1,578	35%	0	0%	214	5%	2,716	60%
Total	45,558	100%	12,072	26%	5,740	13%	3,910	9%	23,835	52%

⁶ Victorian Activity and Travel Survey (VATS) 1994-1999

WALKING TRIPS PER DAY

	All Distances		Less Than 1km		1km to 2km		2km to 3km		More than 3km	
	Number	Proportion	Number	%	Number	%	Number	%	Number	%
Work	23,165	100%	18,755	81%	1,974	9%	1,593	7%	843	4%
Education	6,429	100%	4,993	78%	1,344	21%	0	0%	93	1%
Shop/P.B.	48,413	100%	46,033	95%	1,073	2%	126	0%	1,181	2%
Rec./Soc.	15,082	100%	12,297	82%	1,971	13%	0	0%	814	5%
Link to PT	50,679	100%	45,858	90%	3,377	7%	836	2%	609	1%
Total	143,768	100%	127,935	89%	9,738	7%	2,555	2%	3,540	2%

CYCLING TRIPS PER DAY

	All Distances		Less Than 1km		1km to 2km		2km to 3km		More than 3km	
	Number	%	Number	%	Number	%	Number	%	Number	%
Work	3,283	100%	766	23%	633	19%	491	15%	1,394	42%
Education	1,571	100%	218	14%	790	50%	110	7%	453	29%
Shop/P.B.	1,815	100%	1,042	57%	681	38%	0	0%	92	5%
Rec./Soc.	1,443	100%	397	28%	617	43%	0	0%	429	30%
Link to PT	80	100%	0	0%	0	0%	80	12%	0	0%
Total	8,193	100%	2,423	30%	2,721	33%	680	8%	2,368	29%

Prepared by Department of Infrastructure 2002

The VATS data illustrates the following major points:

A. TRIP TOTALS

1. Walking is already **the** major mode of travel in Yarra, with 144,000 walk trips per day
2. Car driving is a close second, with 142,000 trips per day.
3. Walking is many times more important than cycling, with 8,000 trips per day.

B. TRIP LENGTHS

1. Most walk trips are less than 1km (89%) and 7% are 1-2kms.
2. Most car driver and car passenger trips are more than 3kms.
3. However, every day there are 40,000 car trips of less than 1km and 22,000 of between 1-2kms in the City of Yarra.

C. TRIP PURPOSE

1. There are 18,000 car driver trips to work of under 2kms each day
2. There are 19,000 car driver trips to shop and personal business of under 2kms each day.
3. There are very few short car trips to public transport.

4. Most cars making short trips for the journey to work are not carrying a passenger (i.e. are single occupant vehicles).
5. Approximately 6,000 people travelling to education walk up to 2kms, but there are 3,000 people who drive or are driven less than 2kms to education each day.
6. Every day in Yarra there are 100,000 walk trips to/from local shops and public transport stops.

D. OTHER IMPLICATIONS

There are 44,000 car driver trips of less than 2 kms ending in Yarra each day – resulting in the need for a large number of short or longer term car parking spaces for these vehicles. Any opportunity to reduce parking demand by a successful mode shift for some of these short trips can only be an improvement for all modes.

3.2 ABS 2001 Census Data

The Census data show that 20% of Yarra's households do not own a car and a further 41% of the households in Yarra own only one car. There are over 18,000 households in these groups, and most members of these households will be required to make all or many of their journeys on foot, bicycle or by public transport – or a mix of these modes.

The Census data also show that most of Yarra's 36,000 workers did not travel to work by car – only 44% used a car, compared with 67% in the Metropolitan area. Almost 25% of workers in Yarra used public transport to get to work (which always requires a walk trip to the public transport stop), while others walked as their main mode (9%), used a bicycle, or worked at home.

3.3 Review of the City of Yarra Retail Activity Centres Report⁷

Introduction

The primary aim of any pedestrian strategy is to make walking a more viable option for visitors, especially customers, so that there will be more trip making by pedestrians and less by motor vehicle.

Analysis of data from the Activity Centres Report

The prospect for getting people to walk or at least to take public transport to travel to and from a centre is likely to vary with their origin. For example, local Yarra residents are more likely to walk because of proximity, whereas those from Metropolitan Melbourne are more likely to travel by motor vehicle or public transport.

⁷ The Retail Activity Centres Report, by Charter Keck Cramer, for the City of Yarra, March 2003

Origin of Visitors to all Five Shopping Centres (Smith, Brunswick, Swan and Victoria Streets and Bridge Road)

ORIGIN	Percentage
Metropolitan Melbourne	48
Local Yarra residents	39
Regional Victorians	5
Interstate	6

The greatest infiltration of Yarra's shopping destinations into Metropolitan Melbourne is from the Northern and Eastern suburbs. This is a result of the relative ease of access by motorcar and public transport from these suburbs.

One could anticipate the following travel characteristics

- Local Yarra resident - high prospect for walking.
- Metropolitan Melbourne - high prospect for travel by motor vehicle.
- Non-metropolitan Victoria – moderate prospect for public transport & walking modes.
- Interstate, international tourist - very high prospect for public transport (incl. taxis) and walking.

As a result, the best prospect of increased walking at the expense of car usage is for the local component (Yarra residents and local workers) to continue to walk many of whom are likely to use their cars for local trip-making even though they are within walking distance.

Survey Respondents by Visitor Group & Shopping Destination (%)

VISITOR TYPE	Bridge Road	Brunswick Street	Smith Street	Swan Street	Victoria Street
Yarra resident	33	37	39	47	46
Local worker	11	13	14	15	10
Other visitor	56	51	46	38	44

The data shows that Swan Street draws 62% of its visitors from local residents and workers, while in Bridge Road the figure drops to 44%.

Local residents and local workers are virtually captive to local centres by their proximity. However, they are not captive to a particular mode of travel of which walking is but one choice. There is always a prospect for increasing walking as the preferred mode over the motor car by improving the pedestrian environment within a shopping district: this is primarily done by reducing deterrence factors such as width of roads to cross, waiting time for pedestrians at road intersections and reducing other physical or perceived barriers to walking.

The size of the 'other visitor' component (international, interstate, non-metropolitan Victoria and Metropolitan Melbourne) in the customer split is surprisingly high signifying that all are more than local centres.

Despite this most of the centres have more 'local residents and workers' as customers than 'other' visitors. However, Bridge Road with its 44:56% local: non-local split is likely to be drawing in metropolitan-wide customers many of whom are likely to have good reasons to use their cars.

It is also likely to be attracting interstate and international tourists temporarily accommodated in inner city hotels, and they can be expected to use public transport and walking as travel modes. The appeal of such modes can be increased by improving the walking environment which is so important to both public transport usage and walking.

Mode of Transport (to business destination) by Visitor Group (% using each mode)

MODE	% used by Yarra resident	% used by local worker	% used by other visitor	Average % all visitors
car (driver)	16	42	43	32
car (passenger)	2	10	16	10
walk	68	17	8	33
bicycle	3	3	2	2
tram	10	24	25	19
train	1	3	3	2
bus	1	1	1	1
taxi	1	1	2	1

It is emphasised that all visitors (or nearly all) eventually become pedestrians to fulfil the purpose for which they have come to the shopping destination.

Travel Behaviour of Local 'Yarra Residents'

Local Yarra residents are the most likely to walk to the shopping destinations in City of Yarra and the statistics show 68% of the local residents walking to the destination.

The corollary of this is that Yarra residents use motorcars the least to get to the shopping destinations in Yarra with 16% as car drivers and 2% as passengers (a total of 18% come by private car).

It is known that shopping facilities are ubiquitous across Yarra and it is relatively easy (in terms of distance) to source most needed goods and services by foot. Therefore it is important to find out why this group of resident car users does not choose to walk to the destination and whether it is possible to have them convert to walking through policies and programs supporting and encouraging walking. For example, car usage may be a reasonable choice if one needs to carry heavy or bulky goods from the shops; this is a commonly cited reason for using a car to do supermarket shopping.

The fact that a large number of Yarra residents walk to the destinations suggest that they do not always have the need to carry bulky or heavy goods. It also suggests that they have little need to do their shopping in one weekly visit but travel to the centre (s) more frequently for smaller transactions. This is characteristic of residential areas that are well served with ubiquitous shopping facilities such as is Yarra.

Travel Behaviour of ‘Other Visitors’

‘Other visitors’ was the group with the heaviest usage of the private car to access the centres. A total of 79% of ‘other visitors’ (non residents and local worker category) came by private car. It is likely that the remaining 21% of ‘other visitors’ are interstate and international visitors who do not have access to a car in Melbourne and therefore are dependent on public transport.

Local Workers

The proportion of local workers who use a car to travel to shopping destinations in Yarra is a problem, with 42% as car drivers and 10% as car passengers. It could be anticipated that this contributes substantially to off-peak vehicular congestion within the areas concerned. This ‘local worker’ group has a potential for substantial conversion to walking because of the proximity advantage and it should be targeted in an attempt to reduce its car usage, at least for travel to shopping destinations, and possibly also to place of work.

Local worker trips to the 5 centres by mode of travel.

MODE	% Used by local Worker
car (driver)	42
car (passenger)	10
walk	17
bicycle	3
tram	24
train	3
bus	1
taxi	1

Note that a proportion of local workers use public transport, 28%, with the majority favouring tram, 24%. All the shopping destinations surveyed have trams running down the centre of the road, and a frequent service.

Expenditure of Visitors

Average Expenditure by Visitor Group per visit - All Centres

VISITOR GROUP	\$ SPENT PER VISIT
Yarra resident	\$44.75
Local worker	\$37.28
Other visitor	\$88.49

Bridge Road has the greatest difference in expenditure between 'local resident' and 'other visitor'. This is hardly surprising given the emphasis on fashion 'factory outlets' along Bridge Road.

Average Expenditure by Visitor Group – Bridge Road

VISITOR GROUP	\$ SPENT PER VISIT
Yarra resident	\$53.80
Local worker	\$40.40
Other visitor	\$127.80

Not only does the 'other visitor' category spend more per visit in all five centres across Yarra (Bridge Road in particular) but in Bridge Road 'other visitors' make up the greatest proportion of overall visitors, by a substantial amount.

However, each individual 'local Yarra resident and worker' identified in the survey returns more often to the shopping districts.

Frequency of Visit by Visitor Group

VISITOR GROUP	% visiting daily	% visiting more than weekly	% visiting monthly	% visiting less than monthly
Yarra resident	51	40	6	3
local workers	21	59	9	11
other visitors	4	25	23	48

'Yarra residents' visit most frequently at 91% visit more than once per week and 51% visit daily. The corollary is that 'other visitors' visit the least frequently at only 29% visit more than once per week. In addition 'local workers' visit very frequently and 80% visit more than once per week.

Each 'local resident' makes the greatest monetary contribution to the returns of the centres with an average expenditure of \$44.75 per visit with 91% visiting more than once per week.

**Expenditure Share by Visitor Group
(as % of total expenditure in shopping destination)**

VISITOR GROUP		% from each group Bridge	% from each group Brunswick	% from each group Smith	% from each group Swan	% from each group Victoria
Yarra resident	a	57	66	61	74	59
local worker	b	12	11	14	11	6
total local	a+b	69	77	75	85	65
other visitor		31	23	25	15	35

This table shows that for most of the five Centres the trade from local residents and local workers ranges from 65% in Victoria Street up to 85% in Swan Street. Across all 5 Centres the average is close to 75%. This means that over a long period local shoppers are up to 3 times more important to the Centres than other visitors. Even though locals spend less per visit they visit much more frequently than others. There is a question mark over whether this is the correct way to calculate the shares of total expenditure by visitor group. However, there is no doubt that local trade is more important to the viability of all centres than is frequently acknowledged.

Conclusions

Neither the Charter Keck Cramer Report nor the City's Economic Strategy mention the importance of pedestrians to the City's economy, or broach the topic of improving pedestrian access to or pedestrian amenity within the centres.

Based on this review there appears to be significant potential to increase the percentage of local workers walking to local activity centres. (Persuading them not to drive to work in Yarra in the first place would assist in this task)

The importance of local residents to the economy of the centres also suggests that they should be given higher priority, and supported and encouraged to maintain, and perhaps increase, the extent to which they walk to local shops and services.

3.4 Journey to work data analysis

Data from the ABS Journey to Work Census Data 2001 survey show that 55,000 people were recorded as normally working in Yarra in 2001. (NB. this data source often undercounts jobs). It also showed that 40,000 of them did not use public transport to get to work (i.e. they were car drivers or passengers) while 7000 did use some form of public transport. This means that approximately 73% used cars and 13% used public transport (the balance either worked at home, or did not go to work during the survey period).

The City of Yarra is well served by public transport and it could be expected that those workers who have good and relatively direct access to work through the public transport system could take advantage of it

The northern part of Yarra (Fitzroy, Clifton Hill and Collingwood) has direct train connections, through the Whittlesea and Hurstbridge rail lines. The residents of Darebin, Whittlesea, Banyule and Nillumbik have the potential to use these services to access jobs in the north of Yarra. There are also tram services running North/South into north Yarra from these areas.

The detailed data in the following table shows that approximately 12,000 residents of the northern suburbs in areas with good public transport links to north Yarra work in north Yarra. The largest single group is people who both live and work in north Yarra (over 4000) of who 2500 drove or were driven to work locally. Overall 68% of the workers in the northern suburbs/north Yarra drove to north Yarra and 12% used public transport.

DESTINATION	ORIGIN	USED PT	PT NOT USED	TOTAL FROM ORIGIN
Yarra (C) - North	Banyule (C) - Heidelberg	104	847	1,095
Yarra (C) - North	Banyule (C) - North	66	543	686
Yarra (C) - North	Darebin (C) - Northcote	360	1,076	1,719
Yarra (C) - North	Darebin (C) - Preston	254	979	1,396
Yarra (C) - North	Nillumbik (S) - South	31	300	380
Yarra (C) - North	Nillumbik (S) - South-West	14	216	260
Yarra (C) - North	Nillumbik (S) Bal	10	76	101
Yarra (C) - North	Whittlesea (C) - North	6	97	122
Yarra (C) - North	Whittlesea (C) - South	137	1,087	1,357
Yarra (C) - North	Yarra (C) - North	325	2,518	4,253
Yarra (C) - North	Yarra (C) - Richmond	84	475	624
TOTAL		1,391	8,214	11,993

The southern part of Yarra (Richmond) has direct train services to Richmond station from most of eastern and south-eastern Melbourne. It is serviced by the Glen Waverly, Alamein, Dandenong, Frankston and Sandringham lines, as well as by tram services into Boroondara, Whitehorse and Stonnington. As a result the residents of Bayside, Glen Eira, Stonnington, Boroondara, Whitehorse, Monash, Kingston, Greater Dandenong and Frankston have the potential to use public transport for access to work in Yarra.

In this sector there are over 11,000 commuters who work in the south of Yarra, the largest group of 2,300 both live and work locally but of these 1,500 drive or are driven to work. Overall 71.5% use cars for work and 13% use public transport.

DESTINATION	ORIGIN	USED PT	PT NOT USED	TOTAL FROM ORIGIN
Yarra (C) - Richmond	Bayside (C) - Brighton	24	181	234
Yarra (C) - Richmond	Bayside (C) - South	31	179	236
Yarra (C) - Richmond	Boroondara (C) - Camberwell N.	49	398	503
Yarra (C) - Richmond	Boroondara (C) - Camberwell S.	74	451	597
Yarra (C) - Richmond	Boroondara (C) - Hawthorn	128	537	789
Yarra (C) - Richmond	Boroondara (C) - Kew	57	366	495
Yarra (C) - Richmond	Frankston (C) - East	9	48	65
Yarra (C) - Richmond	Frankston (C) - West	30	87	131
Yarra (C) - Richmond	Glen Eira (C) - Caulfield	107	448	621
Yarra (C) - Richmond	Glen Eira (C) - South	42	211	275
Yarra (C) - Richmond	Gr. Dandenong (C) - Dandenong	19	109	155
Yarra (C) - Richmond	Gr. Dandenong (C) Bal	46	114	180
Yarra (C) - Richmond	Kingston (C) - North	73	246	354
Yarra (C) - Richmond	Kingston (C) - South	35	88	138
Yarra (C) - Richmond	Monash (C) - South-West	37	161	228
Yarra (C) - Richmond	Monash (C) - Waverley East	29	271	344
Yarra (C) - Richmond	Monash (C) - Waverley West	56	292	389
Yarra (C) - Richmond	Stonnington (C) - Prahran	115	641	843
Yarra (C) - Richmond	Stonnington (C) - Malvern	57	385	512
Yarra (C) - Richmond	Whitehorse (C) - Box Hill	60	309	433
Yarra (C) - Richmond	Whitehorse (C) - Nunawading E.	31	208	273
Yarra (C) - Richmond	Whitehorse (C) - Nunawading W.	46	311	399
Yarra (C) - Richmond	Yarra (C) - North	150	462	701
Yarra (C) - Richmond	Yarra (C) - Richmond	131	1,516	2,319
TOTAL		1,436	8,019	11,214

CONCLUSIONS

The result of this analysis is that people who live in areas that have good public transport connections to both the north and the south of the City of Yarra do not use them any more than the people who live elsewhere in metropolitan Melbourne.

There should be significant potential to alter this pattern, and increase the public transport use rate above the Melbourne average of 13% for those working in the north of Yarra and living in the well-connected northern suburbs, and for those living in the south and east of Melbourne who work in the Richmond area.

There are 11,000 people who commute by car to Yarra from these suburbs and a further 5,000 that both live and work in Yarra but still drive to work.

The DOI has developed a 'TravelSmart Business Case Toolkit' which shows employers the benefits of reducing car parking demand and the other benefits of increased 'active transport' amongst their staff. Improved information on public transport services, better walking links to stops and other improvements to the walking environment will need to part of the overall process of changing the journey to work travel behaviour of these groups.

APPENDIX 4 - CONSULTATION PROGRAM

The EIWS Consultation Program consisted of a number of components designed to enable all stakeholders to participate in the development of the strategy. The stakeholder consultation analyses are contained below.

4.1 Community Values Questionnaire Analysis

A total of 25 questionnaires were returned from a postal and email 'mail-out' of 80. This represents a more than 30% return, which is a moderate-to-good response.

Of the 25 questionnaires received 5 were from people who had no problems with the walking environment in the City of Yarra or were incorrectly completed so that no useful information could be obtained from them.

The remaining 20 questionnaires

- 5 were returned by males and 15 by females
- All respondents were over 40 years of age, and 4 were over 70. The largest response group was in the 41-50 years age group.
- 3 respondents cited they used a mobility aid, although most did not specify which type of aid they used.
- 16 of the respondents lived in the suburbs of Yarra, while 4 lived outside of Yarra but were frequent visitors to friends or organisations in Yarra.
- 19 of the respondents were regular walkers in Yarra, and 1 was a cyclist who used the road/rail system every day for a variety of trips.
- 11 of the respondents were largely dissatisfied with the City's walking environment and as can be seen below are generally dissatisfied with traffic, footpath condition, objects on the footpath, lack of facilities and cyclists.

The respondents cited both specific and general problems with the walking environment as well as specific locations that they knew and where they experienced problems. Because of the difficulty of adequately summarising the questionnaires as a group, summaries of the individual questionnaires are outlined below:

Questionnaire 1.

This respondent was very critical of all aspects of the walk environment in Hanover Street, Fitzroy – poor pavements, lack of facilities, poor attitude of drivers and little attention to issues such as graffiti, cleaning and other issues. There was little information, poor street signage and lighting. The respondent was male aged in his 40's.

Questionnaire 2.

This respondent was critical of the walk environment in the Alphington area, especially traffic speed and volume on Heidelberg Road. She cited the capacity of cars to take short-cuts via Park Crescent during the pm rush hour.

Questionnaire 3.

This respondent cited the need for all people with disabilities (who use wheelchairs, walking frames, have sight problems) to be able to walk safely. There is too much traffic, footpaths are inadequate and of poor quality, and major roads are too wide to cross in 1 pedestrian phase, especially Hoddle Street.

Questionnaire 4.

This respondent cited the problems of crossing and using Fenwick Street and Queens Parade, the poor attitude of car drivers, limited information and the problems of walking on garbage days – when bins block narrow footpaths and impeded the sight impaired or those using jeeps or other walking aids.

Questionnaire 5.

This elderly female respondent uses a 3 wheel 'scooter' and focused on the poor state of footpaths and the difficulty of negotiating streets where footpath trading occurs. It is difficult for her to navigate between the café tables, the staff and patrons.

Questionnaire 6.

This respondent had the same problems as the previous respondent – the problems caused for elderly people by footpath trading – on Bridge Road and Swan Street. 'It is becoming hazardous for elderly pedestrians'

Questionnaire 7.

This respondent cited the poor state of the footpaths outside the Bowling Club, near the tram stop. She also noted the problems caused by footpath trading in Queen's Parade, trees blocking the view of traffic in Delbridge Street as well as the speed of traffic generally.

Questionnaire 8.

This respondent cited the problems of cars parked across footpaths forcing pedestrians into the road especially for people with prams. She also noted that the speed of traffic along Nicholson Street (Abbotsford) being a problem especially for young children trying to cross to the only milk bar. She also noted streets in Abbotsford were used as rat runs by traffic from the freeway.

Questionnaire 9.

This respondent cited the number of crossovers, poles and street furniture along Bridge Road hindering movement. She also there is too much fast traffic and that the traffic signals do not give adequate priority to pedestrians with Hoddle/Bridge Road being particularly bad. She also noted that dog owners need to clear up after their dogs. A lack of good location maps with walk times to key locations was also an issue.

Questionnaire 10.

This respondent cited the footpath condition along Wellington and Page Street being poor. Bicycles on the footpath were also a problem and a lack of time for pedestrians to cross at the signals at Gold Street and Queens Parade.

Questionnaire 11.

This respondent had similar issues to the previous respondent with the condition of the footpath in Page Street (Clifton Hill) and Wellington Streets and the number of bicycles

sharing the footpath. The respondent noted that designated bike lanes on the road were inadequate and dangerous ensuring the footpath was used more by cyclists.

From the group of respondents who were less critical of the walking environment, but who still made comments the following are the major points raised:

- The need for children to walk to school and the problem of a reputed 'sex offender' in Clifton Hill.
- Fast and heavy traffic in Princes Street
- Poor driver behaviour – speeding, lack of courtesy to pedestrians.
- Fast traffic causing noise – lower speed limits would reduce both noise and danger to pedestrians.
- The high speed and volume of traffic makes it unsafe for children to walk to school.
- The lack of signage and information so the both pedestrians and cyclists can travel safely to destinations without hindering each other.
- Lack of signage.

The Community Values Questionnaires identified a number of problem locations, but focused on 2 major issues:

1. **Traffic volume and speed**, including poor driver behaviour. This makes it difficult and potentially unsafe to cross roads. Pedestrians are, therefore, required to stick to the footpaths – which need to be fit for use.
2. The apparent lack of attention to the condition of and space on **footpaths** – so that they are even, can be used by those with disabilities and with prams, and are not impeded by traders, garbage bins, trees and (in some cases) cyclists.

4.2 Public Consultation Analysis

4.2.1 COLLINGWOOD

4.2.1a Background

The public consultation at Collingwood was attended by 15 residents – a group of 10 Greek women friends (all aged 45yrs+) and 5 other people (three women and two men). Amongst the latter 5 people were representatives of Collingwood and Abbotsford Residents Association and the South Fitzroy Residents Group.

The Consultants explained the context of the consultation – including the objectives of the EIWS project, the need to obtain public input through consultations and the format for the public forum. Attendees were asked to discuss:

- (a) where and why they walked in the City of Yarra;
- (b) problems and issues for walkers; and
- (c) possible solutions to these problems and what Council could do to help in this process.

The total group was divided into 2 smaller groups to facilitate discussion and input.



Figure C1. Community consultation at Collingwood



Figure C2. Community consultation at Collingwood

4.2.1b Outcomes

The Greek women walked all over their local neighbourhood – often in small groups – to shop, to doctors and to visit friends. Only 1 of the 10 held a driving licence. They were driven to activities by their husbands at weekends when their car was available, but for most of the week they walked and/or caught public transport.

Most of the other attendees were ‘walkers by conviction’ – they walked to most destinations not only because it was possible to do so, but also because they believed it was better for themselves (health reasons), for the environment and their neighbourhood. They walk to visit friends, for much of their local shopping and to visits to the Collingwood Children’s Farm, the Yarra River and other attractive open spaces.

They believed that there was much that is good about the walking environment in Yarra – it is interesting and vibrant, very diverse, is close to the City centre and has good access to parks and the Yarra River. However, there are disadvantages, including the ‘explosion’ of footpath trading, cycling on footpaths and the general lack of pedestrian amenities particularly seats, toilets and lack of trees/shade.

4.2.1c Problems and their solutions

The Greek women were primarily concerned with the quality of the footpaths. As they grow older they are concerned with falls and the cost and inconvenience of recovery, and they cited the need to ensure that the footpaths are flat and level. Tree root upgrowth, slippery conditions caused by leaf-fall in autumn (which can hide pushed-up footpath areas) and dog droppings (also possible slip hazards) were their major concerns.

The solutions were more attention to the maintenance of footpaths, street cleaning (especially leaf-fall) and the responsible behaviour of dog owners (cleaning up afterwards).

The other attendees made a range of comments on problems and their solutions. However, one believed that Council was being ‘politically correct to encourage the use of public transport and walking, but not enough was actually being done!’ while another stated that Council paid too much notice to major business interest and not enough to pedestrians.

Their suggestions for improved action included:

- Signage for walkers that showed the direction, distance and walk time to major destinations.
- Making it easier to cross roads – reduced pedestrian wait-time and more crossings.
- Improve bike routes so that cyclists don’t need to ride on footpaths.
- Improve pedestrian amenities – seats, drinking fountains and shade trees.
- Council support for the smaller shopping centres, which are closer to homes and easier to walk to.



Figure C3. Community consultation at Collingwood



Figure C4. Community consultation at Collingwood

4.2.2 RICHMOND

4.2.2a Background

The public consultation at Richmond was attended by 9 residents, including a local Councillor. The group consisted of 2 Salvation Army members (of Chinese origin), 2 people who are public servants in Yarra, members of the public interested in walking in Yarra and one person who is a well-known transport activist in Yarra. None represented any particular interest 'group'.

The Consultants explained the context of the consultation – including the objectives of the EIWS project, the need to obtain public input through consultations and the format for the public forum. Attendees were asked to discuss:

- (a) where and why they walked in the City of Yarra;
- (b) problems and issues for walkers; and
- (c) possible solutions to these problems and what Council could do to help in this process.

The total group was divided into 2 smaller groups to facilitate discussion and input.



Figure C5. Community consultation at Richmond



Figure C6. Community consultation at Richmond

4.2.2b Outcomes

Walking in Richmond is focused on all of the major retail streets in the Richmond area, as well as the parks, the riverbank and other routes to the major destinations.

The participants in this consultation came from a variety of backgrounds which influenced their commentary on their reasons for walking and where that walked.

The 2 Salvation Army Officers attended the meeting because they are concerned with the health issues of older people and believe that 'Walking makes you happy!' They believed that encouraging and enabling people to walk will combat the high rates of diabetes in many ethnic emigrant groups in Australia, especially those that now live in high-rise flats. They noted that there is a walking group operated by the Health Centre at Richmond. However, another participant who was involved with the walking group noted that there were many

places in Richmond she could not take them to (such as along the Yarra River), because it was too difficult to cross some roads. She noted that it was almost impossible to access the Richmond Golf Course on foot.

The other participants were keen and committed walkers. They walked for variety of purposes – for health, with their dogs, with their children, or because they don't have a car. One participant noted that few European men walked, compared with Asian men, while many people of African descent who have migrated to Australia tend to put on weight as they adopt new lifestyles and food – walking would be good for them. Another person noted that she believed that Yarra was good for walking, had many 'hidden gems' and was in need of a good 'Walking Map'. She believes that a 'Heritage Walk' map used to exist for Richmond and that a map is available for walks in the Yarra Bend Park – although she has not been able to acquire one. Another participant had the view that 'functional walkers' (i.e. for whom walking is transport) need a good map to show them the fastest and most direct routes from A-B.

Walking in Richmond is focused on all of the major retail streets in the Richmond area, as well as the parks, the riverbank and other routes to the major destinations.

4.2.2c Problems and their solutions

The problems and solutions identified during the consultation focused on:

- The lack of good information for walkers. It is necessary to produce a pedestrian-focused map showing where it is safe and possible to cross roads, access the Yarra River, walk-times to destinations, 'hidden' pedestrian access routes (such as Yarra River crossings that are not on existing maps), public toilets and other pedestrian facilities.
- Blockages on footpaths – such as 'oversize' footpath trading and trees overhanging footpaths. Both are particularly difficult problems for people with a disability - the latter to people with vision impairment and the former to people in wheelchairs or using walking frames.
- Traffic speed and volume is a problem in Richmond. Cars produce pollution and they believed that air quality was poorer as a result. The participants at this consultation believed that Richmond needed more traffic treatments (more LATM's?) and that road crossability should be improved. They cited the need to speed up pedestrian light responsiveness and more green time at the Bridge Road 'Epworth Lights' and the Swan Street 'Coles Lights'
- They believed that pedestrian amenity and facilities were not a high priority in Richmond and that more attention should be paid to lighting, provision of toilets and drinking fountains.
- Walking is an important part of the health and recreational scene in Richmond, but most of the Centres that offer 'walking' only do so once per week. Council should facilitate more walking outings and regular walks, preferably within the local area.
- Finally, one participant asked that a short section of footpath be constructed over a corner of Golden Square Park, to avoid a 'detour' on her way to the Burnley Rail station.

4.2.3 FITZROY

4.2.3a Background

The public consultation at Fitzroy was attended by 6 residents, including 2 local Councillors. The rest of the group consisted of 3 members of the public interested in walking in Yarra and the General Manager of Bicycle Victoria who attended as a local resident.



Figure C7. Community consultation at Fitzroy



Figure C8. Community consultation at Fitzroy

The Consultants explained the context of the consultation – including the objectives of the EIWS project, the need to obtain public input through consultations and the format for the public forum. Attendees were asked to discuss:

- (a) where and why they walked in the City of Yarra;
- (b) problems and issues for walkers; and
- (c) possible solutions to these problems and what Council could do to help in this process.

4.2.3b Outcomes

The participants at this consultation are all committed walkers (and cyclists). One, a mother of 2 young children walks to most destinations in the Fitzroy South area, including the Kindergarten, Victoria Park Rail station, the Fitzroy Library, Safeway on Smith Street and other local destinations. A male participant, who has no car, walks mainly for health and medical reasons – to the gym, along the Creek paths, to the Zoo and other parks, and enjoys the social connections made on his walks. Another participant walks regularly to the main supermarket in Fitzroy (Piedmontes) and with her young son to Royal Park, the IMAX Cinema, as well as into the CBD. A resident and a Councillor noted that their major local destinations were the 'villages' in Fitzroy and Carlton – the groups of local shops scattered through the area on Rathdowne, Nicholson, Queen's Parade and St George's Road. The area is attractive to walk in with interesting architecture, lots of local destinations and other walkers and cyclists.

4.2.3c Problems and their solutions

- In this area there are some excellent walking environments but a number of wide roads which tend to encourage drivers to speed. As a result they are difficult to cross. Frequently pedestrian lights have a green phase which is too short for mothers with children, or older people who walk more slowly than allowed for by the prevailing standards. Crossing Alexandra Parade is a particular problem. Traffic is fast and heavy
- In addition there are numbers of 'offset' pedestrian light crossings – requiring detours by pedestrians. Council should act to lengthen green phases where needed and reduce the unnecessary pedestrian detours where possible.
- The issue of drug use and drug users was noted – Gold Street was identified as a problematic location, often deterring people from walking in the area.
- While there is a need for more toilets in the area, their use by people involved with drugs is a problem. This requires the installation of self-flushing toilets. There is also the need to install more seating – preferably in the shade and to improve lighting in and near the major activity centres in this area.
- The area contains a number of informal 'short-cuts' through laneways and properties. The concern was expressed that these will be cut off if and when development takes place. It was suggested that Council develop a policy to retain these short-cuts in the future.
- It is difficult to walk along narrow footpaths on Wednesdays in this area – garbage day, when bins can be left out for some time, blocking the footpaths for many users.
- In addition this group also noted the need for a good local map of safe walking routes, including the shared footways/cycle ways, and showing the estimated time (as well as distance) to amenities such as shops, toilets, BBQ's, schools and the other destinations of the area.

4.3 Business consultation

Rodney Tolley was invited to present at the Retail Business Forum in April 2005. Eleven representatives from various Business and Trader Associations and Business Advisory Groups, as well as three Councillors and Yarra staff including the CEO and Acting Director City Development attended the forum.

The condition of the walking environment was raised as an issue by the Business representatives and in particular the condition of the footpaths along shopping strips. There was general agreement that improving the footpaths and encouraging walking would be good for business. However, businesses were also concerned about the lack of parking and one participant recommended a business worker and owner car park so that the street parking could be used for visitor and shoppers needing to park. It was suggested that an analysis of the walking / parking relationship to business viability sponsored by businesses, similar to that undertaken by Acland Street Traders, would help to clarify priorities regarding asset management in shopping strips.



Figure C9. Business Consultation



Figure C10. Business Consultation

4.4 Staff Consultation Analysis

The 2 Staff consultations were attended by a total of 30 staff members – 20 at Richmond Town Hall and 10 at Collingwood Town Hall.



Figure C11. Staff consultation at Richmond



Figure C12. Staff consultation at Collingwood

The consultations had the following format:

1. Rodney Tolley's presentation emphasised the links between a large number of the Strategies and Actions identified in the current Council Plan and the difficulty of implementing those Strategies/Actions without improving conditions for walking.
2. The staff then 'workshopped' to identify:
 - (a) new initiatives in the walking field;
 - (b) for each new initiative, which departments and other bodies would need to work together for its successful implementation?; and
 - (c) what barriers and opportunities could be identified to hinder or support the implementation of the new initiative?

The purpose of the workshop was to encourage staff to think laterally about what could be done to support walking, to encourage them to think across departmental barriers and to identify how barriers could be overcome.

Staff identified the following:

- **The need for better signage and maps for pedestrians.**

The departments that need to be involved include Strategic and Transport Planning, Engineering Services, Leisure and Open Space. Signage and mapping needs to be viewed as cross-departmental priority, and there needs to be a budget allocated to it.

- **Recommendations on the issue of either reducing parking for new developments or reducing parking in existing retail areas, as means of supporting and encouraging walking.**

This would need the co-operation of all Councillors and many departments (to produce a change in Council policy), as well as the selling of the idea to both developers and business. The concept would need to be built into the Council MSS and approved by DSE/DOI. The major barriers are the reluctance of many people to accept the view that parking can be reduced without threat to commercial viability. The opportunities include the ability to use parking space in more productive and useful ways. The Economic Development department will be important in enabling this initiative.

- **Footpaths of the major shopping streets and those streets with narrow footpaths be widened.**

This recommendation often followed-on from the previous one – and identified how the footpaths could be used for more ‘public-realm’ activities, including trading, improved street-scaping, street furniture, trees, etc. so that more space is available for walkers, shoppers and those with disabilities. The barriers include the reluctance of commercial and development stakeholders to recognise the benefits of an improved walking environment/public realm. This will require more research to demonstrate the link between expenditure in centres and the quality of the walking environment.

- **Reduce ‘clutter’ (and some barriers to pedestrians) on existing streets as a means of effectively improving space for pedestrians on footpaths.**

This would be inexpensive but would require the co-operation of all existing clutter-causing stakeholders i.e. the owners/controllers of signs, poles, service connections, seating and tables and the like. It would be necessary to survey streets and identify the unnecessary, unused or outdated items that commonly accumulate over the years.

- **Improve the ‘crossability’ of roads.**

This could be achieved by constructing new pedestrian crossings, installing median/splitter islands in roads, by making existing pedestrian crossings more responsive to pedestrian call buttons and by increasing the amount of ‘green-time’ for pedestrians to cross. VicRoads is an important stakeholder in this area and has been reluctant to install new crossings where they are not supported by ‘warrants’. However, the City of Port Phillip ‘Greenlight Project’ and other initiatives seem to be reducing VicRoads reluctance to move on these issues.

- **Other initiatives that were identified included:**

- i) The identification of walking routes between major origins and destinations;
- ii) The installation of ‘shared zones’ in busy pedestrian use parts of Yarra;
- iii) The link-up of the shared path network;
- iv) Improvement of the walking culture to and around schools; and
- v) Better lighting, especially around stations and other major pedestrian destinations.

The staff consultation showed that there is a good appreciation of the links between walking and a range of initiatives that could be adopted in the City of Yarra. It also showed that most of the initiatives required:

1. Support from Councillors/Senior Admin for initiatives that involve policy change and the allocation of budget. This will only be possible when the importance and benefits of walking are fully appreciated.
2. Support and co-operation across a range of Council Departments. Most new initiatives will require interdepartmental co-operation, through planning to implementation. This will be enabled through consistent Council policy.
3. Reduced opposition to change by external stakeholders – local traders, VicRoads and others. This can best be achieved through improved research into the high value of a good quality public realm/walking environment and the contribution that it makes to economic viability, sustainable transport and other community objectives.

4.5 Independent Submissions

Submissions were received from 5 members of the public – 4 of whom were unable to attend the public consultations and 1 from Ian Quick on footpath trading. He has produced a 'Footpath Trading Policy Review' (dated 18.04.05.)

The latter document is publicly available and copies have been submitted to Council. The submission identifies a number of problems with footpath trading and suggests that the major issue involves enforcement of the existing policy.

The footpath trading issue was mentioned by a number of those completing community questionnaires and arose during 1 of the public consultations. Footpath trading is mainly an issue for the ageing, in wheelchairs or using 'walkers' (the trade name for the new combined walking frame/jeep/seat) or pushing prams.

It is difficult to balance between the competing needs of business and pedestrians. However, the existing policy seems designed to achieve that balance and we would support the enforcement of the policy for the benefit of the growing number of elderly pedestrians and the Council's aim of encouraging and increasing walking in the City of Yarra.

The first independent submission focused on the issue of shared paths – and identified the need for more seating, slower bike speeds, and more information/interpretation. It also suggested that if roads were safer cyclists could use them and make more space available for pedestrians.

The second submission commented on the poor state of footpaths and laneway crossings along Bridge Road, and the need for another pedestrian crossing of Bridge Road between Church and Lennox Streets.

The third submission noted the lack of a 'green man' unless the button is pressed at pedestrian crossings, as well as the need for audible signals when it is safe to cross. She

also suggested that Council 'pair' volunteers with people who want to walk, shop or visit friends, as a means of encouraging walking and strengthening community bonds.

The final independent submission praised the walking environment in Richmond, but noted the problems of: (i) Garbage days, when 2 bins per household can block the footpaths; (ii) The speeding of traffic on back roads to avoid the 40k speed limits on shopping streets; and, (iii) The speed of cyclists on shared paths and danger to slow-moving pedestrians.

4.6 Other Consultation

The Consultants attended a meeting of Yarra's Disability Advisory Committee. Much of the meeting was devoted to the issue of the identification of the numerous 'access crossings' that people on wheelchairs have difficulty in using. A number of these are in Smith Street, one of our subsequent case study areas

As part of the Project the consultants commissioned a review of the information contained in the Charter Keck Cramer Report on the 5 main City of Yarra 'Retail Activity Centres'. This review was substituted for a proposed survey of shoppers in those centres. The above Report contained all of the data that was considered relevant to the investigation of the importance of walking to the economy of the 5 main retail centres in the City of Yarra. The review of the Activity Centres Report is included in the data analysis section of this Report.

4.7 Consultation Phase Conclusions and Recommendations

4.7.1 Introduction

There is a consensus amongst professionals that measures to encourage and increase walking will require action amongst all 4 of the 'Action Areas' i.e.:

- (i) better internal co-ordination within Councils;
- (ii) the implementation of 'hardware';
- (iii) the development of 'software' (promotional programs); and
- (iv) the development of policy that is consistent with the aims of encouraging and increasing walking.

4.7.2 Internal Co-ordination and Policy Development

The Staff consultation demonstrated that Council officers recognise the need for inter-departmental co-ordination to achieve improvements in the quality of the walking environment, and the promotion of walking, and Councillors and Senior Administration should build this on.

4.7.2a Better Information

One of the most common suggestions for action, from all of the consultations, was the development of better information for pedestrians. This can be achieved through:

- i) improved signage and
- ii) the production of a 'pedestrian map' of the City of Yarra.

These 2 new initiatives will involve, for example, signage around stations (as recommended below for Richmond East station and the route from the Public Housing area to Smith Street) and the production of both an overall pedestrian map for the City of Yarra, as well as more 'local' maps (e.g. for North Fitzroy).

The implementation of these 2 initiatives could be the first 'interdepartmental exercises' to demonstrate that departments with the responsibility for a range interests can work co-operatively to:

- a) locate, design, construct and install new pedestrian signs; and,
- b) decide on the content, the style, the colours, the design, the print and the distribution of pedestrian maps.

However, neither initiative will be achievable unless the projects are: supported by Council; that a budget for the projects is available; and, the Administration facilitates the involvement of Officers from different departments to ensure all stakeholders have sufficient input and develop a co-operative approach.

4.7.2b Traffic Speed and Volume

A second major common theme to emerge from the consultations was the issue of the volume and speed of traffic and the implications that this has for the quality of the walking environment and the 'public realm'. Because of the speed and volume of traffic, the City needs to:

- Reduce vehicle speed on roads the Council controls and put pressure on others to reduce speeds on roads they control
- Reduce vehicle volume, in line with Council and State policy
- Make it easier to cross roads –to improve pedestrian crossings, install more crossings, reducing 'detours' to crossings, and making them more 'responsive';
- Improve the quality (and the width) of footpaths, and increase maintenance regimes, because pedestrians are forced to stay on them;
- Remove clutter and blockages on footpaths, including non-compliant footpath trading, empty garbage bins, etc., again because pedestrians are forced to stay on the footpaths;
- Make the pedestrian environment/public realm a priority, with better seating, more toilets, DDA compliant access crossings, etc.

Some of these could be brought together into a 'speed and vehicle volume management strategy' for the city.

The development of an improved walking environment (as identified above) will require the adoption of priorities within Council which emphasise the needs of people over private vehicles.

The Staff consultations also highlighted the need for Council to develop policy that is consistent with encouraging and increasing walking – and the specific policies of:

- Reducing parking for new developments, so that traffic levels within the City of Yarra do not grow in pace with the scale of development;
- Limiting parking in retail areas enabling more space to be allocated to pedestrians

These are going to be difficult to achieve without the support of traders. Council needs to demonstrate and consistently propagate the importance of walking to economic spend as a justification for re-allocating space away from parking and towards space for walkers.

For this there is the need for recent and robust data. The City of Yarra could fund the businesses to commission surveys (using the Acland St Model). Businesses are more likely to accept the results if they have been involved in the process.

These types of policies could be contained in Yarra's Strategic Transport Statement as well as integrated, where appropriate, into many of the Council's other strategies and plans, including the MSS, the MPHP, the Economic Development Strategy and many of the other foreshadowed Plans and Strategies listed in the current Council Plan.

As indicated during the Staff and Councillor presentations a 'Strategy to Encourage and Increase Walking' cannot be a separate 'bolt-on' strategy that is an addition to existing strategies and policies. It involves a change in Council priorities and some changes in the ways that departments allocate expenditures – giving higher priority to the needs of those on foot and a lower priority to those using private cars.

APPENDIX 5 - COMMUNITY VALUES QUESTIONNAIRE

Please tick the appropriate box (or boxes)

PART A ABOUT YOU

A1. Are you male? **female?**

A2. What age group are you in?

0 -10 21 -30 41 -50 61 -70 81 -90
 11 -20 31 - 40 51 -60 71 -80 Over 91

A3. Do you use any mobility aids to help you get around on a daily basis?

No If 'yes', please state: Walking stick Electric wheelchair
 Yes Walking frame Electric gopher
 Manual wheelchair Other

A4. What neighbourhood/area do you live in?

Abbotsford	<input type="checkbox"/>	Fairfield	<input type="checkbox"/>
Alphington	<input type="checkbox"/>	Fitzroy	<input type="checkbox"/>
Burnley	<input type="checkbox"/>	Fitzroy North	<input type="checkbox"/>
Carlton North	<input type="checkbox"/>	Princes Hill	<input type="checkbox"/>
Clifton Hill	<input type="checkbox"/>	Richmond	<input type="checkbox"/>
Collingwood	<input type="checkbox"/>	Other (please state)	<input type="checkbox"/>
Cremorne	<input type="checkbox"/>	

A5. How often do you walk to local destinations in Yarra or nearby?

	Never	More than once a month	Once every two weeks	Once a week	3 - 4 times a week	Daily	More than once a day
Shops	<input type="checkbox"/>						
Bus Stop	<input type="checkbox"/>						
Tram Stop	<input type="checkbox"/>						
Train Station	<input type="checkbox"/>						
School	<input type="checkbox"/>						
Work	<input type="checkbox"/>						
Cafes/restaurants	<input type="checkbox"/>						
Friends	<input type="checkbox"/>						
Medical/Health Centres	<input type="checkbox"/>						
Parks	<input type="checkbox"/>						
Leisure Centres	<input type="checkbox"/>						
Other – please state	<input type="checkbox"/>						
.....							

PART B ABOUT WALKING IN YOUR LOCAL AREA

B1. Are you able to walk in your area easily? Yes No

If 'no' because:

Please identify a key location:

The footpath is not in a good condition (e.g. it is unlevel, broken or cracked)

The footpath is too narrow

There are lots of crossovers in the footpath

The footpath is blocked with poles, signs, etc

The footpath is blocked with outdoor seating

Other (please state):

.....

B2. Are you able to walk in your area safely? Yes No

If 'no' because:

Please identify a key location:

There is too much traffic

The traffic is too fast

I fear for my personal safety if I take the most direct route

Other (please state):

.....

B3. Is it easy to cross streets in your local neighbourhood? Yes No

If 'no' because:

Please identify a key location:

The road is too wide to cross safely

The traffic signals do not allow enough time for pedestrians to cross safely

There are no easy crossing places for pedestrians

Trees, plants or parked cars block the view of traffic

There is too much fast traffic

The quality of the kerb (e.g. access ramps) is poor

Other (please state):
.....
.....

B4. Do you find drivers are courteous to you as a pedestrian?

Yes No because: Drivers drive out of driveways without warning

Drivers do not give way to pedestrians

Drivers go too fast

Drivers speed up to get through lights or crossings

There are not enough signs to give information to drivers about pedestrians

Other (please state):
.....

B5. How important is the quality of the walking environment?

Please choose 5 issues from the following list and rank them in order of importance to you where: 1 = not important and 5 = most important

	Importance
Footpath condition (e.g. cracks, materials, levels)	<input type="checkbox"/>
Footpath width	<input type="checkbox"/>
Signalised pedestrian crossing locations	<input type="checkbox"/>
Non-signalised pedestrian crossing locations	<input type="checkbox"/>
Benches	<input type="checkbox"/>
Lighting	<input type="checkbox"/>
Toilets	<input type="checkbox"/>
Street trees	<input type="checkbox"/>
Litter	<input type="checkbox"/>
Graffiti	<input type="checkbox"/>
Other:.....	<input type="checkbox"/>
Other:.....	<input type="checkbox"/>

B6. Is there enough information available for people walking? Yes No

If 'no' because:

Please identify a key location:

There are too few street name signs	<input type="checkbox"/>
There are no street maps available to help me	<input type="checkbox"/>
There are too many signs and it is confusing	<input type="checkbox"/>
Other (please state):	<input type="checkbox"/>

B7. Which of the following items do you think Council should focus its resources on? Please rank them.

1 = not important and 11= most important

	Importance
Encouraging walking to school	<input type="checkbox"/>
Encouraging walking to work	<input type="checkbox"/>
Encouraging walking to the local shops and services	<input type="checkbox"/>
Encouraging walking to the bus stop	<input type="checkbox"/>
Encouraging walking to the tram stop	<input type="checkbox"/>
Encouraging walking to the train station	<input type="checkbox"/>
Encouraging walking for recreation	<input type="checkbox"/>
Encouraging walking for health	<input type="checkbox"/>
Encouraging walking and road safety	<input type="checkbox"/>
Encouraging the elderly to walk	<input type="checkbox"/>
Encouraging children to walk	<input type="checkbox"/>
Other issues (please also rate)	<input type="checkbox"/>

If you have any other walking issues you'd like to raise please use the following space:

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Thank you very much for your time and participation in this survey.

APPENDIX 6 CASE STUDY DETAILS

6.1 COLLINGWOOD CASE STUDY AUDIT RESULTS

6.1 Background to Collingwood Case Study

Collingwood was selected for examination and survey after discussion with City of Yarra officers. It was identified as an area with a number of severe access issues and possibly a poor walking environment. It was thought that it could be a 'case study' of an area with many difficulties, but with the potential to undertake works and programs to successfully encourage and increase walking.

The selected case study area of Collingwood is bounded by Hoddle Street, Johnston Street, Smith Street and Gipps street. There is a large concentration of the Department of Human Services public housing in the area. The public housing consists of both the post-war (1960's) high-rise flats and some more recent low/medium rise houses/flats on Dight, Campbell and Palmer streets. The latter streets were designed to be pedestrian-focused and restrict vehicle speed and volume.

The area is primarily residential, with some light industry and warehousing in the SE corner of the area (Islington/Gipps Street) and run-down retail and services along Johnston Street. The area also contains the Collingwood combined primary and secondary school and the basketball stadium, the Northern Melbourne TAFE College, St. Josephs primary school and the police workshops. The area around the workshops is a mix of industrial, residential and commercial uses

Hoddle Street is a primary arterial, dual carriageway, divided road with four lanes of traffic in both directions and a parking lane. Hoddle Street is a major access route for vehicles to the northern and eastern suburbs via the Eastern Freeway, Heidelberg Road and High Street (Northcote). It carries very high volumes of traffic and has a 70kph speed limit. Approximately eight bus services use various sections of Hoddle Street. There is some limited retail/service activity on the east side of Hoddle Street (Collingwood Town Hall side) and on the west side, in the service road.

Johnston Street is a secondary arterial road, with peak hour clearways and a five-lane contra-flow system at peak periods. Five bus routes use Johnston Street. Within the section of Johnston Street between Hoddle and Smith Streets retail activity is run-down. Many of the shops are vacant, are used for offices/services or are restaurants which do not open during the daytime. Business on Johnston Street is severely disadvantaged by the speed and volume of traffic.

Wellington Street is classified as a collector street but appears to carry moderate to large volumes of traffic at 60 km. It has no retail activity on it within the study area.

Smith Street, Melbourne's oldest shopping street, is a vibrant retail and 'café' street, with a major tram route to the City and La Trobe University.

There are cycle routes along a number of the roads forming the periphery of the study area and on routes passing through the area, including both Campbell and Stanley Streets.

Collingwood Town Hall and Collingwood Station are on the east side of Hoddle Street opposite the public housing buildings.

The major retail destination for the residents of the area is Smith Street, which has as well as many smaller retail shops, a Safeway supermarket.

CONNECTED – deals with connectivity issues – including severance and barriers (permanent or temporary).

Are there pedestrian routes between the identified origins and destinations?

- The area contains a number of large journey ‘origins’, particularly the public housing developments, which generate a very high volume of pedestrian movement.
- There are also a number of destinations, such as the schools/TAFE, the basketball stadium and the retail and services in Smith Street. For many activities, such as shopping, entertainment and work most residents will need to travel to the primary local destination, the Smith Street shopping strip.
- No off-road routes for pedestrians were identified. The pedestrian network thus consists only of footpaths provided on the edge of roads, usually on both sides. These footpaths do not always provide a direct route between origin and destination. A detour is often necessary, due to the grid road layout and sometimes, where the most direct route is not acceptable, the detours may be considerable.
- The survey showed that the area is largely ‘ringed’ by heavily trafficked roads and that movement into and out of the area on foot, to the north or the east was not a pleasant experience if the journey involved crossing Hoddle or Johnston Streets. Wellington Street is a busy road and there are fencing barriers along much of its length.

Do they link with other transport modes – train, tram, bus, (cycle?)? Where?

- The area is well served by public transport but some of the local public transport services are not easy to access. The nearest railway station, Collingwood Station, is beyond 8-10 lanes of traffic (across Hoddle Street) as is the southbound bus stop. There is a pedestrian crossing but it is not responsive enough for pedestrians, inviting daring dashes across fast flowing traffic. The eastbound bus stops on Johnston Street require the crossing of over 3-5 lanes of traffic (5 lanes during peak periods). It is necessary to cross these roads to use the bus services – either on the outgoing or return journey.
- The most ‘accessible’ public transport service is the number 86 tram on Smith Street.
- There was limited cycle use in and through the area.

Are there disability concerns – is the level of connectivity of reduced quality for those with disabilities?

- The crossing of the major streets presents a barrier to those with disabilities. For example, the pedestrian overpass of Hoddle Street at Vere Street is not disability compliant either in gradient or the availability of ‘flat-spots’ where wheelchair users can rest (Figure 1). People with mobility impairment would need to cross Hoddle at grade, but the volume and speed of traffic, together with the long waiting times and length of crossing exposure make this a formidable task.

- On most of the routes from the residential area in the Hoddle, Johnston, Wellington and Gipps street block up to Smith Street there are a number of intersections that are not DDA compliant. Access to Smith Street is much more difficult for those with impairments or prams than it is for unimpeded walkers.
- Along Smith Street there are a number of corners/access ramps that are not DDA compliant. Yarra's Disability Advisory Committee has identified these as being of high priority and there is a program in place in 2005/06 to address some of the access crossing issues (Figure 2).
- The Paraquad Offices on Wellington Street imply a need for good DDA compliance in area, though this is an area of great potential difficulty for wheelchair users.



Figure 1 The non-DDA compliant overpass of Hoddle Street at Vere Street



Figure 2 Non-DDA compliant kerb ramps on the South side of Smith Street

Are there major barriers along the routes? Can they be overcome or circumvented?

- Along both Hoddle Street and Wellington Street there are long distances of footpath which are fenced off from the road. The median of Hoddle Street also has long lengths of fencing. These barriers have been placed there for safety reasons.
- In Wellington Street there are two layers of fencing separating the DHS housing from the footpath and the footpath from the road. Some panels of the 2nd layer have been bent back (illegally?) to allow pedestrian access to the road, even though this is within a few metres of a signalised crossing (Figure 3). Casual observation revealed that almost every crossing pedestrian used gaps in the railings and crossed the road unaided. This may be due to the formal crossing being offset away from the main pedestrian desire line or an unwillingness to endure the waiting times set by the signal system. Such apparent discordance between provision and behaviour is not uncommon in such circumstances: it may be seen as aberrant, but to effort-minimising humans it is natural. The use of fencing is now not considered the best way to protect pedestrians. It may be more appropriate to provide more light-controlled crossing points with faster pedestrian-response times, or to slow traffic where people want or need to cross.

Err



Figure 3 Gaps made (by pedestrians) in the fencing on Wellington Street allow pedestrians (such as this one) to cross the road without detouring to the signalised crossing



Figure 4 Blocked footpath on Little Wellington Street

Do shop uses create barriers – seating, displays etc? What effect does this have on the routes?

- There is limited retailing in the area and this may contribute to the poor walking amenity of much of the area. On Smith Street the footpath is barely of sufficient width to accommodate both footpath trading and provide for pedestrians.

Do cyclists use the footpath – is enough roadspace allocated to them, to deter footpath use?

- There is little evidence of cycling on the footpath. There are on-road bicycle lanes on Wellington and Gipps Streets.

Do uncontrolled roundabouts create barriers?

- There are none in the area

CONVIVIAL – deals with aesthetic and/or safety issues – is the route attractive, threatening (day or night).

Are the routes interesting? Buildings of interest, parks, shops, etc.

- There is a mix of buildings in the area, but not many of architectural interest, except on Smith Street.
- Smith Street is by some way the most interesting in the area, with a vibrant atmosphere generated by the shopping and café opportunities and the high pedestrian volume.
- There are small green areas with play facilities and seating close to the major flat blocks.
- No street artwork was seen in the area and the streets have a distinctly functional feel.

Are routes clean? Litter, graffiti, litterbins provided, street trees maintained?

- Stanley Street has a poor walking environment with graffiti, side alleys, smelly rubbish bins and drinking area on the corner with Smith Street.
- Most streets seem clean, but the rear alleys are not, making them much less attractive as pedestrian cut-throughs.
- Some pavements are blocked with uncollected rubbish. Elsewhere, narrow pavements are entirely blocked by wheelie bins (Figure 4).

Are there areas where personal security or fears for security are a problem? Does this deter pedestrians?

- A group of drinkers on the corner of Smith/Stanley Streets create a challenging ambience

Are there areas which are secluded or with no passive surveillance?

- Stanley Street, a pedestrian link up to Smith Street, has no active uses at the Wellington Street end (Figure 5). This is true also of most of the SE corner of the area, where industrial uses pre-dominate and there are many blank frontages.



Figure 5 The unappealing walking environment in Stanley Street



Figure 6 Otter Street, which has great potential for upgraded pedestrian access to Smith Street

Does the route pass potentially 'difficult' uses (hotels, brothels?)

Are the buildings along the route well maintained? Empty at night (offices or other commercial/industrial)

Is the route used by pedestrians – too few? too many?

- Otter Street is the preferred walking route from the east of the area (the public housing and other residential) up to Smith Street. It is well used by pedestrians and is bordered by a School, TAFE, and housing (Figure 6).
- Johnston Street has a dismal atmosphere due to boarded up businesses and traffic blight (Figure 7).
- Smith Street pavements are crowded, though not un-negotiable.



Figure 7 Empty shops on Johnston Street would create a menacing atmosphere after dark



Figure 8 The 'Civic Guide' outside Collingwood Town Hall

Are there 'blind spots' at corners or bends? Are there clear sightlines? Are there escape routes?

Is the speed of traffic, the volume of traffic and/or the size of vehicles on adjacent roads threatening?

- Most of the area has not been audited in detail to test conformity with CPTED principles, but it is evident from cursory examination that most of it is not compliant.
- Traffic is intimidating on Hoddle and Johnston Streets and at peak times on Wellington Street.

Is there sufficient quality and quantity of lighting at night?

- This will vary from place to place. Smith Street is probably satisfactory, but much of the rest of the area may not be.

Are the facilities (bins, lights, footpaths, etc.) well maintained? Overhanging trees, etc?

- Unfortunately most of the 'conviviality' questions, above, can be answered in a negative way for this area. On an equity basis it would be reasonable to expect that the pedestrian environment surrounding the less-well-off in the community should be dealt with in ways that maximise the amenity, safety and accessibility of local residents.

CONSPICUOUS – deals with wayfinding issues – is it easy to follow the route?

What is the existing quality/quantity of signage – is it easy to read? Are there gaps in the signage? Are there signposts at corners, are they easy to read?

- There was very limited signage visible in the area. A number of streets had no street-name signs visible (e.g. Perry Street) and others were hard to read for pedestrians.
- Other signage is, for the most part, non-existent.

Do signs indicate distances? Are maps available?

- No signs indicate distances or times.
- A 'Civic Guide' is located outside Collingwood Town Hall, but no other maps were seen in the area (Figure 8).

Is the route 'obvious' or confusing/unclear?

- Some signs can be seen to point in wrong directions. This is sometimes because they have spun round, but in other cases they have been wrongly installed (Figure 9).



Figure 9 This sign has been installed at 90 degrees from the correct angle and thus mis-identifies the street



Figure 10 Trip and fall risks on Peel Street

Does the route clearly provide for and make those with disabilities welcome?

Are there clear sightlines – leading to destinations?

- There did not appear to be any signage information at the public housing areas of signage to the local bus stops, Collingwood Station or an indication of walking times to local shops in Smith Street.
- Public transport and related walking information is not available via the DHS Office on Hoddle Street – although this would be good outlet for the provision of it to existing and new residents.

COMFORTABLE – deals with engineering/design issues – footpath widths, surfaces

Are the footpaths of sufficient width (at least 2 people walking abreast 1.8-2m minimum), and for those with prams, shopping jeeps, etc along all sections of the route?

- Most of the footpaths are on the principal streets are of adequate width, but elsewhere they are often very narrow and are not safe for walking

Are the footpath surfaces of sufficient quality for all users - in wheelchairs, using walking frames etc?

- There are many examples of poor footpath surfaces in area e.g. Peel Street (Figure 11). This results from tree root damage, vehicle over-riding, and maintenance backlogs etc.

Is there tactile paving? Is it properly installed and maintained?

- Some crossings have been treated but others have not. This must make navigation around the area for those with sight impairment very difficult.

Are there any trip or slip hazards? Broken footpaths, metal grilles etc.

- These are present on most of the roads, but obviously are less prevalent on those with heavy foot traffic such as Smith Street.

Is the pavement blocked by street furniture, café seats, cars, etc?

- Most pavements are clear.

Are the kerbs at junctions and other crossing points properly constructed with dropped kerbs and small lips? Are the crossings of cross streets adequate – are dropped kerbs installed?

- There are a number of examples on Smith Street of poor crossings with side streets and many of these have already been identified as problems by the Disability Advisory Committee.

Are vehicle crossovers properly installed with dropped kerbs?

- Again, many vehicle crossovers are currently non-disability compliant.

Are there locations where the surface gradient is too steep – over crossovers, up ramps, etc. (DDA requires a gradient of less than 1 in 14 – but 1 in 20 is preferred)

- As already indicated, the pedestrian overpass of Hoddle Street is not disability compliant either in gradient or the availability of 'flat-spots' where wheelchair users can rest.

Is there seating in appropriate places (waiting areas, open spaces) and at appropriate distances (e.g. every 1-200 metres)

- There are virtually no public seats in the area, except at the Stanley Street/Smith Street intersection, but this has been taken over by drinkers. The walk up the hill to the shops on Smith Street from the flats has no resting places.
- There are toilets in area at Peel/Smith Streets, but they are not welcoming and there are no signs to them.

CONVENIENT – deals with delay issues – road crossings

Are safe road crossing places provided along the identified routes/desire lines?

- There are five places to cross Hoddle Street between Gipps and Johnston Streets (a distance of 600 metres).

There are four light-controlled crossings at:

- (i) Gipps Street;
- (ii) opposite Collingwood Town Hall;
- (iii) at Studley Street; and
- (iv) at Johnston Street.

as well as a pedestrian overpass at Vere Street (Figure 11).

This suggests that Hoddle Street does not present a major pedestrian barrier. In practice, however, Hoddle Street presents a major pedestrian barrier because of the time taken to detour to the lights; because the push-button at all controlled crossings produces no accelerated light change, just a green man (at peak hours the delay is in the order of 90-120 seconds); and because of the time taken to cross both carriageways consecutively, with a renewed delay between each crossing. Moreover, the volume and speed of the traffic is disconcerting (Figure 12).



Figure 11 Hoddle Street looking south and the Vere Street overpass



Figure 12 A crossing on Hoddle Street

- There is only one mid-block crossing of Johnston between Hoddle and Wellington Streets (a 500 metre distance) and one mid-block crossing of Wellington Street between Johnston and Gipps Street (a 600 metre distance).
- There are two pedestrian crossings on Smith Street, at Safeway and Charles Street. However, many pedestrians preferred to cross unaided.
- As already indicated, the pedestrian crossing on Wellington is not used by many people. Most cross at the bottom of Otter Street to go through a hole in the railings and then direct into the public housing flats.

Is the traffic flow heavy or light at the crossing points? Do drivers adhere to speed limits?

- There is fast, heavy and intimidating traffic on Hoddle and Johnston Streets.

Are the crossings adequate for the numbers of pedestrians?

- From observation, the crossings appear to be of adequate dimensions.

How 'responsive' are light-controlled crossings?

- There is no immediately obvious response on Hoddle and Johnston Streets to requests to cross.

Are response rates short or long (greater than 60? seconds).

- On Hoddle/Johnston, the delays may be as long as 90 seconds or more

What time is available for crossing?

- The assumption that pedestrians can cross at a speed of 1.2m/sec is known to overestimate the ability of many, especially children, the disabled and elderly. As a result, crossing time may be inadequate for some people.

Can the road be crossed in 1 cycle?

- Hoddle Street requires each carriageway to be crossed separately, leading to long crossing times.

Are there central refuges – can they accommodate pedestrians?

- There are formal refuges on Hoddle Street. On other streets, pedestrians may seek protection by standing on the central painted island.

6.2 NORTH FITZROY CASE STUDY AUDIT RESULTS

North Fitzroy was selected for examination and survey as it was identified as an area with a reasonably good walking environment and as a 'case study' of an area with the potential to undertake works and programs, with the potential to successfully encourage and increase walking.

The surveyed area covered most of Fitzroy North. The boundary of the area to the North is the Municipal boundary. The other boundaries are topographical or traffic-related features that form clear boundaries, over which walking is difficult:

- East = Hoddle Street and the Merri Creek.
- West = Nicholson Street
- South = Princes Street and Alexandra Parade.

The area is predominantly residential, with two strip shopping areas, one on Queens Parade and the other along parts of Brunswick Street and St Georges Road. The other main elements of the areas include:

- One rail station (Rushall)
- Three tram routes - 86 Queens Parade, 112 Brunswick Street and 96 Nicholson Street
- Several bus routes
- Three parks (Edinburgh Gardens, Darling Gardens and Mayor's Park)
- Five schools
- A network of formal and informal cycle paths and shared path trails
- Two concentrations of elderly citizens' developments, at Rushall Park and St Thomas' Close, McKean Street

CONNECTED – deals with connectivity issues – including severance, barriers (permanent or temporary)

Are there pedestrian routes between the identified origins and destinations?

- The existing pedestrian environment in most parts of the survey area provides safe access to range of destinations **within** the survey area. There are limited numbers of primary and secondary arterial roads running through the area – Holden Street, St. Georges/Brunswick St. and Queens Parade with its adjoining streets (Smith, George and Heidelberg Road). All other streets are either collectors or local streets which have been treated to reduce vehicle traffic. The result is that most pedestrian origins/destinations within the case study area are accessible on foot along routes which are traffic calmed and which may contain either formal or informal cycle routes. The cycle routes are frequently along streets which have the potential to form the basis of a comprehensive network of 'walking' streets.
- However, on the periphery of the area some destinations may be difficult to access on foot from residential blocks outside the case study area, including Clifton Hill station and St Brigid's Primary school in the south west

Do they link with other transport modes – train, tram, bus, (cycle?)? Where?

- Most of the Fitzroy North area has no access to rail services. Clifton Hill station is located close to the Queens Parade/Heidelberg Road/Hoddle Street triangle which is extremely daunting for pedestrians (Figure 13). The station is impossible to access on the surface and is difficult to access via the pathway through Mayor's Park and the station Subway (Figures 14 and 15).



Figure 13 The daunting crossing of Queens Road at Michael Street



Figure 14 Clifton Hill Station on Hoddle Street



Figure 15 Difficult access to Clifton Hill Station via the subway



Figure 16 Rushall Station

Rushall Station is on the periphery of the area but can be safely accessed from the area to the north of Queen's Parade (Figure 16).

- The bus and tram routes are pedestrian accessible but the individual services may not be usable by those with mobility impairments.

Are there disability concerns – is the level of connectivity of reduced quality for those with disabilities?

- A survey of most streets within the area showed that while the large majority of the footpaths and intersections are of high quality and provide a good walking environment a number of pedestrian routes are not useable by people in wheelchairs, using walking frames or pushing prams. These barriers include deep laneway or vehicle crossovers and high or damaged kerb rollovers in some places. A

small number of these relative minor barriers can adversely affect the permeability of large areas of the city for those with a disability or the need to use a pram. A whole 'route' can be made unusable with one un-crossable corner or crossover (Figure 18).



Figure 17 Disability non-compliant crossing - Michael Street



Figure 18 Deep laneway crossing on McKean Street

- People in wheelchairs cannot access most of the shops in Fitzroy North because of the steps up into the premises.

Are there major barriers along the routes? Can they be overcome or circumvented?

- In most of the cases where there were barriers to either pedestrians or those with a disability the works needed to overcome the barriers appear to be relatively inexpensive – replacing high kerbs, repairing broken edges, filling holes in the footpath etc. Some of the deep channel laneway crossovers (e.g. on McKean street near the Catholic home for the elderly) may be more expensive engineering exercises (Figure 18).
- In addition there are a number of locations where new pedestrian crossings may be justified. These include Rushall Station entrance and the intersection of Newry and Brunswick Street (Figure 19). At this location a cycle route crosses Brunswick Street and there are two tram stops, but there is no safe crossing of Brunswick between Princes Street and the Edinburgh Gardens Bowling Club. Newry lies in the middle of this gap.



Figure 19 The lack of crossing facilities on Brunswick Street south of Newry Street



Figure 20 Barkly Street, a calmed and attractive environment for walking

Do shop uses create barriers – seating, displays etc? What effect does this have on the routes?

- There is limited shopping in the area and footpath trading does not appear to create barriers to movement.

Do cyclists use the footpath – is enough roadspace allocated to them, to deter footpath use?

- The area is well provided with cycle paths, shared paths and informal cycle routes and there is little need for cyclists to use undesignated footpaths, except perhaps at some intersections. In a number of cases the cycle environment has been engineered to a higher standard than the pedestrian environment.

Do uncontrolled roundabouts create barriers?

- Most of the roundabouts are on calmed streets and do not appear to present a barrier to pedestrians.

CONVIVAL – deals with aesthetic and/or safety issues – is the route attractive, threatening (day or night)

Are the routes interesting? Buildings of interest, parks, shops, etc.

- The area has three small, mixed shopping areas – on St Georges Road at Holden Street, on St Georges at Scotchmer Street and on Queens Parade. The retail mix is limited. There is a small supermarket on St Georges Road.
- There are 3 well-maintained and well-used parks.
- The residential area is Victorian/Federation and has limited modern infill. Its wide and moderately quiet streets provide a safe and interesting walking environment.
- There are parks and smaller green areas with shared paths (e.g. adjacent to North Fitzroy primary School on Fergie Road) (Figure 21), which are attractive public spaces and provide good walking environments.



Figure 21 Shared path adjacent to North Fitzroy primary School on Fergie Road



Figure 22 A lack of signage where the Merri Creek pathway joins St Georges Road

Are routes clean? Litter, graffiti, litter bins provided, street trees maintained?

- There was little evidence of graffiti, litter or poorly maintained trees.

Are there areas where personal security or fears for security are a problem? Does this deter pedestrians? Are there areas which are secluded or with no passive surveillance?

- The parks and some of the shared paths may be unattractive to walkers and cyclists after dark.

Does the route pass potentially 'difficult' uses (hotels, brothels?) Are the buildings along the route well maintained? Empty at night (offices or other commercial/industrial)

- There is no evidence of this.

Is the route used by pedestrians – too few? too many?

- There were few pedestrians walking in the residential streets during the survey – on a fine day but during school holidays.
- The parks were being well used as were the shopping strips.
- There were moderate numbers of cyclists using the Capital Trail.

Are there 'blindspots' at corners or bends? Are there clear sightlines? Are there escape routes?

- This did not appear to be a problem in most streets.

Is the speed of traffic, the volume of traffic and/or the size of vehicles on adjacent roads threatening?

- There are three roads that form logical 'edges' to the study area – Nicholson Street, Alexandra Parade and Hoddle Street. These roads have high traffic volumes and speeds and carry heavy vehicles.
- The larger internal roads – Brunswick/St. Georges and Queens Parade are somewhat less of a barrier, with trams, bus routes and some cycle routes, and pedestrian crossings at moderately frequent intervals. These routes also have some retail activity on them.
- Within the residential areas the volumes of traffic are low.

Is there sufficient quality and quantity of lighting at night?

- It would be necessary to conduct a thorough audit in darkness to assess the sense of attractiveness or threat to walking at night. However, it is unlikely that this would be an area that would deter many from walking during darkness.
- Most of the streets appear to be well lit and most of the shopping strips have active frontages.
- Many streets have houses close to them and 'passive' surveillance is good.

Are the facilities (bins, lights, footpaths, etc.) well maintained? Overhanging trees, etc?

- The level of footpath maintenance is generally good, although small areas of poor maintenance can cause larger areas to be unusable. Other elements appear to be well maintained.

CONSPICUOUS – deals with wayfinding issues – is it easy to follow the route?

What is the existing quality/quantity of signage – is it easy to read? Are there gaps in the signage? Are there signposts at corners, are they easy to read?

- There is limited signage of any type in the area.
- The street name finger signage that exists is designed for motorists or is older signage for cyclists and indeed some of the cycling signage on posts does not concur with the cycle routes identified on the 'TravelSmart' maps.
- There is little or no 'pedestrian wayfinding' signage and little or no signage to or within the parks.
- There is no signage to or on the Merri Creek shared pathway (Figure 22).
- There is no signage for either pedestrians or cyclists on the Capital City Route.
- There needs to be signage along the route to indicate safe road crossings.
- There is a specific need for a sign to tell people that there is no safe road crossing of the route to Edinburgh Gardens over St Georges Road and that cyclists/pedestrians should divert via the Capital City route.

Do signs indicate distances? Are maps available?

- No. Distances should be included in the signage strategy and maps of the area should be available.

Is the route 'obvious' or confusing/unclear?

- There are some locations where the existing signage is probably confusing – e.g. at the junction of Queen's Parade and Michael Street there are two signs to a Kindergarten, both pointing in different directions.
- There is a need to assess the usefulness of all existing signage in the case study area and to remove unnecessary or outdated signs
- There are other locations where signage is unclear.

Is the route well lit? How frequent is the lighting? Is it maintained? Can you distinguish faces at night? Do trees block the lights?

- The area was not surveyed at night.

Does the route clearly provide for and make those with disabilities welcome?

- No. There are a number of locations, lane crossovers, footpath corners and other sites that are not DDA compliant and will 'trap' those with disabilities.

Are there clear sightlines – leading to destinations?

- Most of the roads are straight and attractive as walking places.

COMFORTABLE – deals with engineering/design issues – footpath widths, surfaces

Are the footpaths of sufficient width (at least 2 people walking abreast 1.8-2m minimum), and for those with prams, shopping jeeps, etc along all sections of the route?

- In most cases there is no problem with footpath width.

- However, there are problem spots which make routes uncomfortable for the majority and impossible for some. An example is the bus stop and shelter on Alexandra Parade near Rae Street, which virtually blocks the entire pavement (Figure 24).



Figure 23 Bus stop obstructing the footway on Alexandra Parade



Figure 24 Surface break-up, Alexandra Parade

Are the footpath surfaces of sufficient quality for all users - in wheelchairs, using walking frames etc?

- Yes, in most cases. However, there are examples of poor footpath quality – as in Michael Street.

Is there tactile paving? Is it properly installed and maintained?

- There are places where tactile paving has been installed – e.g. in Miller Street near the bus stop.
- However, this is an isolated installation, and there were no other observed examples in the area.

Are there any trip or slip hazards? Broken footpaths, metal grilles etc.

- For the most part the surfaces are reasonably well maintained, but inevitably there are examples where surface re-instatement is required (Figure 24).

Is the pavement blocked by street furniture, café seats, cars, etc?

- At the time of survey this was not seen to be an issue.

Are the kerbs at junctions and other crossing points properly constructed with dropped kerbs and small lips? Are the crossings of cross streets adequate – are dropped kerbs installed?

- In most cases the engineering was adequate, but examples (illustrated elsewhere) were found, blocking routes for the elderly or disabled.

Are vehicle crossovers properly installed with dropped kerbs? Are there locations where the surface gradient is too steep – over crossovers, up ramps, etc. (DDA requires a gradient of less than 1 in 14 – but 1 in 20 is preferred)

- There are examples of high quality provision of all of these facilities in a number of locations, although this is by no means universal.

Is there seating in appropriate places (waiting areas, open spaces) and at appropriate distances (e.g. every 1-200 metres along major pedestrian routes). Are toilets available?

- Outside of the parks, there was very little public seating. Where it did occur it seemed to be randomly located or relict. For example, there are two old and broken seats at the junction of Michael and Woodside.
- Seats are essential for elderly people and they encourage meeting and community use of public space.
- There is a need for a review of existing provision and for a logical set of seats to be installed.
- There was one public toilet in the area, at the centre of Edinburgh Gardens. Notwithstanding issues of maintenance, vandalism and inappropriate usage, it is essential that toilets be provided if walking is to be encouraged in the area.
- There was also a lack of shelter from sun (and rain) in the study area.

CONVENIENT – deals with delay issues – road crossings

Are safe road crossing places provided along the identified routes/desire lines?

- Not in all cases. We have identified the need for additional crossings at Newry/Brunswick and outside Rushall Station, but there may be a need for others, depending on pedestrian flow.

Is the traffic flow heavy or light at the crossing points? Do drivers adhere to speed limits?

- Traffic flow is heavy on the main internal arterials. However, vehicle speed seemed to be within the posted limits.

Are the crossings adequate for the numbers of pedestrians?

- Yes, they seemed to be, though surveys were not made at peak times.

How 'responsive' are light-controlled crossings? Are response rates short or long (greater than 60 seconds). What time is available for crossing? Can the road be crossed in 1 cycle?

- The responsiveness of lights varied widely. For example, outside of the elderly person's village in Rushall Crescent the response was almost immediate.
- However, on most of the main roads where light-controlled crossings existed there was no accelerated response when the buttons were pressed – just the appearance of a 'green man'.

Are there signs to advise drivers of pedestrian crossings?

- None were observed during this survey.

Are there central refuges – can they accommodate pedestrians?

- Refuges at crossings and roundabouts are frequent throughout the area, including where tram reservations provide central refuges.

Conclusions.

North Fitzroy has great potential to become a first class walking environment. To achieve this, a number of interventions are necessary. However, before specific recommendations are made, it is of value to outline some broad approaches that can be of value in an area such as this. These are outlined below

Hierarchies of provision

Best practice in planning for pedestrians currently adopted in the UK is to take a hierarchical approach as shown in Table 3.

Table 3 Traffic planning hierarchy

Consider first	Traffic reduction
	Speed reduction
	Reallocation of road space to pedestrians
	Provision of direct at-grade crossings
Consider last	Improved pedestrian routes on existing desire lines
	New pedestrian alignment or grade separation

Traffic reduction and speed reduction are the first and second options because these treatments are likely to offer wider community benefits in terms of road safety, streetscape, community severance and noise reduction, and make effective use of existing road space. Increased walking and cycling and improvements in streetscape, local environment and community safety are entirely compatible and mutually reinforcing.

The options at the bottom of each table should normally be considered last because they do not address the safety issues that preclude pedestrians or cyclists from using existing highway infrastructure. In some cases, new or grade-separated pedestrian alignments and cycle tracks may be less direct or may be problematic in terms of personal security. Designers must take these issues into account to ensure that a facility is useable. The measures in the hierarchy are not mutually exclusive - for example, reducing traffic speeds or volumes may be a pre-requisite for enabling an at-grade pedestrian crossing to be installed.

It is important that each option is considered thoroughly before resorting to any measure further down the hierarchy. Full consideration must be given to motor traffic reduction before it is dismissed as it may deliver benefits in terms of pedestrian safety, improved retail environments, and is also the optimum solution for encouraging cycling.

It is a most relevant consideration for North Fitzroy, because traffic levels are low, the area is extensive and there are plentiful opportunities for walking. In these circumstances, it is appropriate for the first option to be the modification of the use of the existing network so

that it is safer and more attractive for walkers, rather than for the extensive construction of dedicated facilities.

Methods of traffic reduction are beyond the scope of this report, but they include parking management, public transport promotion, school and workplace travel planning and travel behaviour modification programs such as TravelSmart. Speed reduction can be tackled as part of a Speed Management Plan.

Reallocation of road space to pedestrians: constructing a continuous pedestrian network

At present, the road network in North Fitzroy provides a continuous even surface for wheeled vehicles. On the other hand, pedestrians are provided with a set of pavements which does not represent a *network* as it is interrupted at every road intersection. This arrangement results in pedestrians being exposed to greater danger when they cross roads.

If the priority at road intersections was reversed, rather than the vehicle network being uninterrupted, the pedestrian network, consisting of linked pavements, would be uninterrupted. To achieve this, two elements of the traffic engineer's toolkit need to be integrated – the pedestrian crossing and the road hump. Pedestrians then walk across 'speed tables' – broad level-topped humps – which are the width of conventional crossings, and are paved with similar materials and laid at the same level as the pavement. Likewise, the full 'square' at road intersections is raised and paved at pavement level. The effect of this is to create the continuous *pedestrian network* and give drivers a distinct visual clue as to who has the priority (Figures 25, 26)



Figure 25 A raised pedestrian crossing - Toorak Road, South Yarra



Figure 26 A raised pedestrian crossing, in a mid-block location, Nelson, New Zealand

Evidence shows that vehicle speeds are reduced sharply when drivers cross road humps, and that vehicles are driven slowly and considerably on paved areas that are unambiguously the preserve of pedestrians.

Such a pedestrian network would involve prioritising those routes with the highest levels of potential use, starting outside schools, park entrances, shopping areas, and road intersections in residential areas. Where the network intersects busy roads, appropriate crossing treatment would be installed. The approach would be gradual and incremental, building on success and public support.

6.3 RICHMOND – EAST RICHMOND STATIONS CASE STUDY AUDIT RESULTS

The Draft Cremorne Precinct Urban Design Guidelines provide a good overview of the issues, problems and redevelopment opportunities within the area surrounding the Richmond and East Richmond stations. Richmond Station has poor pedestrian accessibility and amenity. An analysis using the standard 5Cs checklist reveals the following issues.

Is the route Connected or Convenient?

Walking is very poorly integrated with public transport. The main exit to the South is via a long ramp which decants passengers onto the north side of Swan Street (Figure 27). There is no direct crossing to the tram stop opposite the station, so there is a need to detour to cross Swan either at the light controlled crossing at Cremorne Street or at Punt Road. Access to the shopping facilities on Swan Street is under the railway bridge, which is noisy, dark and intimidating (Figure 28). After the bridge the street environment improves significantly.



Figure 27 The South entrance to Richmond Station on Swan Street



Figure 28 Pedestrian access to Swan Street shops is under the railway bridge

There is limited access to the north of the station, via a long walkway. The west exits are only open during events at the sports precinct, so that casual visitors must use the South exit and then cross Hoddle Street (Figure 29).



Figure 29 Crossing Hoddle Street to access the Sports and Entertainment Precinct



Figure 30 Mixed and changing land uses North of Richmond Station

Overall, the station's access arrangements are not consistent with either its significance on the railway network nor its proximity to major destinations.

Is the route Comfortable and convivial?

The area around the station is blighted by heavy and fast moving traffic. There are no seats, public toilets, or other facilities. Frontages are uninteresting and land uses are dominated by car hire firms surrounding the Swan Street entrances to the station. The North exit leads to a rundown mixed use industrial area being changed to residential (Figure 30). Routes south to Cremorne and the office parks on Church Street are along streets with narrow footpaths with many crossovers.

Is the route Conspicuous?

The station itself is very poorly signed and hidden within a façade of shops and mixed uses. There is no information for arriving passengers to inform them of nearby destinations and no walking routes are signposted.

There is significant potential for redevelopment in area around Richmond Station (TAFE, Nylex site, other smaller areas) and in the Olympic Park and Sports precincts. Pedestrian access and amenity to Richmond Station is poor and significant improvements should be built into redevelopment plans for the area, especially the interface of Richmond station with its immediate surrounds. There is a need to re-open the north exit/entrance.

However, the short-term potential for improving walking in the vicinity of this station is limited until redevelopments occur. As a result we turned the focus of our audit to East Richmond Station

East Richmond Station

It would seem that East Richmond Station provides a better short-term opportunity than Richmond Station for positive action to encourage and support pedestrian activity and amenity. This is due to a number of factors as follows.

Proximity: the station is closer to the heart of the Swan Street/Church Street shopping district and to business employment complexes on Church. As a result it is already well used by pedestrians. Its catchment includes a substantial residential area to the east of Church Street.

Integration with other forms of transport: the station intersects with two tram lines (Swan Street and Church/Chapel Streets)

Environment: there are sheltered tram waiting areas under shop verandas.

Pedestrian connectivity: pedestrian crossing facilities (lights and yellow painted strips) are provided nearby on Church and Swan Streets.

However, there are a number of infrastructural issues that require attention. Specifically, these include:

- the absence of signage to the station from Swan Street (Figure 31);
- there are 3 routes to East Richmond Station from Swan Street, 2 via laneways and 1 via Green Street. While all 3 have signs indicating the number of car parking spaces, none indicate the presence of the Station.
- there is a railway underpass at the south end of Green Street. This appears to be well used but is not signed in any way.

- the poor signage for train and trams and their interconnection on Church Street. (Figure 32);
- the lack of a road crossing to southbound tram at the Church Street exit from the station (Figure 33); and
- the need for appropriate works to make the intersection area a clear transport interchange, such as devices to slow traffic, seating, lighting, real-time train information, etc.



Figure 31 One of the entrances to East Richmond Station from Swan Street. Like the others it is unsigned and insignificant



Figure 32 There is only low key signage at the entrance to east Richmond Station on Church Street and no indication of the adjacent tram services.



Figure 33 The lack of a crossing on Church Street between the tram stops above the rail line.



Figure 34 Poorly delineated space for pedestrians.

East Richmond Station environs need to be upgraded.

It is recommended that the Council develop the parts of the Swan Street/Church Street intersection which link to the station entrances as high quality transport interchange:

- Install good quality signage to the station from Swan Street;
- Install devices to slow traffic entering the transport interchange – (e.g. road surface treatment). This should be designed to send a clear signal that this is a space where pedestrians dominate;
- Improve seating and lighting at the intersection/near stops;
- Install ‘Real-time’ train and tram information on both Church and Swan streets;
- Install a pedestrian crossing to the southbound Church Street tram from the station exit.
- Where possible widen the footpaths to accommodate additional walking traffic.

If the area were upgraded in the way suggested here, access would be improved for shoppers. It would also be improved for employees in the Church Street, Cremorne and Burnley areas, though only for commuters using the lines that serve the Eastern suburbs – the Belgrave, Lilydale, Alamein and Glen Waverley Lines.



Figure 35 Poor space provided for pedestrians in Railway Place



Figure 36 Office employment is accessible from the Yarra rail and foot bridge

For commuters using the Sandringham, Frankston, Cranbourne and Pakenham lines, disembarking at Richmond station would be feasible, though this would leave a difficult and lengthy walk. An alternative for this group would be to use South Yarra Station, which is within a 10-12 minute walk or tram ride from the southern part of Cremorne and the Church Street employment areas. Access from South Yarra Station could be either via Toorak Road and Chapel Street (on foot or by tram- or both), or via the footbridge over the Yarra River/SE Freeway, beside the rail line (Figures 36 and 37).



Figure 37 The Yarra rail and foot bridge



Figure 38 Socially-unsafe and disability non-compliant access to the Yarra rail and foot bridge on the northern (City of Yarra) side

However, although the footbridge itself is in sound condition, and bicycle-friendly access is provided, it is not accessible to those incapable of climbing steps. Considerable work would be required to provide ramped access. Moreover, the present volume of litter and graffiti suggests that this would be at best an unappealing environment for many and probably unusable to women, certainly at night (Figure 38).

This route is already used by some commuters, although no counts are available. However, anecdotal evidence suggests that the footbridge is little known, so this route would require signage both in Stonnington and Yarra, at South Yarra Station, at both ends of the bridge and in Church Street. It would also require off-site publicity – on maps, for example – but represents a real opportunity to forge a new route of benefit to pedestrians. The route would complement the pedestrian improvements suggested for East Richmond Station and provide commuters to the Cremorne/Burnley area with public transport or walking options from both the East and SE suburbs of Melbourne.

APPENDIX 7 - SIGNAGE - THE BRISTOL APPROACH

The Bristol signage system is widely acknowledged as being of world best standard. It consists of a range of components, including On-street Information Panels, Directional Signs (which can be attached to the panels or used independently), Street Signs, pedestrian maps (as opposed to car focused maps) and tactile signs. Some components relevant to the City of Yarra are described and illustrated below.

A) The Bristol On-street Information Panels consist of 4 major elements

1. The **structures** on which the signage is placed. The basic structure consists of a double-sided, flat panel of high structural quality, set into the footpath. The dimensions height 1800mm and width 500mm would appear adequate – although a taller panel may be justified (up to 2000mm). The flat panel houses the maps or other information used for wayfinding, the name of the panel location (locality name), and a city 'logo'. Information usually appears on both sides of the panel unless it is inappropriate to do so.

The Bristol structure also consists of a stainless steel pole attached to 1 side of the panel which holds the directional signs. The pole is approximately 2400mm high. No pole is used where directional signs are not needed or there is insufficient height clearance

2. The **directional signs** on the pole may be individual signs, or groups of signs indicating the direction to important destinations. These destinations may be beyond the bounds of the particular map on the Information Hub at that particular location, or in a direction (reverse) not indicated on the map. In Bristol there are some locations where 15-20 directional signs are located on the pole. Each directional sign is double-sided and in appropriate colours/font/font size to be DDA compliant.



3. A **locality map** is the main map on each panel. All locality maps are 'heads-up' with the viewer located at the bottom dead centre of the map. The maps are designed to be 'semi 3-dimensional'. Each map is unique to its location. Each map shows:

- all pedestrian routes in the area covered by the map and all major destinations (buildings, parks, sites of interest). People are thus shown the walking routes to the destinations from their existing location.
- the area of the city/locality that is within a 180degree radius of the location of the Hub/viewer. The map usually illustrates a square area of the city/locality, so that the 2 maps on both sides of one flat panel illustrate the 360degree area around each Hub. Multi-sided hubs are thus not required
- the internationally recognised symbols for toilets, public transport stops, information booths, public telephones, pedestrian crossing places, etc.
- approximate walk-time contours based on the distance to be covered (the contour is a semi-circular line and thus does not take account of pedestrian delays at crossings).



The maps are designed to fit the size of the Information Hub panel (500x500mm). The scale of all maps in a city should be the same. The actual scale for a particular city/area will need to be determined by the distances to be walked. In Bristol all maps show the 4-minute and 8-minute walk-time contours. People walk at around 60-80 metres a minute, so each map covers an area of approximately 500metres square – 250-300metres to the sides of the viewing point and 500metres in front. In places where longer distances need to be walked, the walk-time contours can be increased, (or vice-versa), thereby changing the scale of the standard-sized map.

4. A small-scale '**signage-area**' map is located above the more detailed locality map. The signage-area map identifies the total area covered by the signage program. The particular (square) part of the city covered by the locality map on the panel is highlighted within the signage-area map above it. The viewer is thus able to locate themselves within the broad geographic context.



B) Other signs/ Information

Independent directional signs are located on poles and both the poles and the signs are of the same quality and design/colour as those attached to information panels. They are used to repeat information about directions and destinations, in locations where a new information panel may not be needed (or as a means of reducing costs). These locations include simple 'decision points' between information panels, or to indicate a change of direction along a route to a major destination. They may indicate walk-time in minutes, especially if the destination is not visible at that point.



Street-name signs are located in a consistent way, at all street junctions, so they are easily visible to **pedestrians**. They are designed to be easily read, so that viewers can locate themselves on the **Bristol Pedestrian Map** which encourages people to walk the city. The map shows most major destinations and all streets, parks, bus, taxi, and toilet locations, and other facilities. It provides an indication of walk times (a 4-minute walking circle) showing that it is possible to walk across most of the inner city in 40-50 minutes. The map is printed in bulk, on recycled paper, and the unit cost is low. It is given away at many locations throughout the city.

APPENDIX 8 - AUDITING THE 'WALKABILITY' OF A LOCAL COMMUNITY

Around the world a number of organisations have developed methods of auditing the quality of streets and public space. Many of these are developed by and for the professionals, usually engineers, who design and install facilities in streets.

However, others have been developed by communities themselves in order to be able to show Councils what they feel is wrong with their street. One of the best known of these is the Community Street Audit process from the UK organisation, Living Streets. The description that follows is adapted from *DIY Community Street Audits*, published by Living Streets in 2002.

Community Street Audits are a method for evaluating the quality of public space – streets, parks and squares – from the viewpoint of the people who use it, rather than those who manage it. Local people know their neighbourhood better than anyone. A street audit matches that detailed local knowledge with expertise on what the problems are, and how they might be solved.

Local people in this context may be thought of as 'Streetholders' and may thus consist of many of these people or groups:

- Residents (and representatives)
- Businesses (and representatives)
- Shoppers
- Property owners
- Highway users
- Pedestrians
- Cyclists
- Public transport passengers/ operators
- Freight and deliveries
- Taxi users/ operators
- Private cars
- Emergency services
- Utilities

The street audit method is simple. Small groups of local people walk the area to be audited and look for good and bad points along the way. As issues are identified, they are noted on large scale maps and briefly described on report sheets. These notes are then used to produce a report to present to the council.

In order to structure the approach and the report, Living Streets has devised a checklist of eight audit categories, together with some sample questions in each. These are set out below.

Eight audit categories

1.	Footway surfaces and obstructions	Quality and mix of materials; footway condition; inspection and hole covers; positioning, alignment and condition of street furniture; temporary obstructions including cars, advertising boards, shop front displays and road works.
2.	Facilities and signage	Toilets, benches, litterbins, lighting, trees, signs for pedestrians.
3.	Maintenance and enforcement issues	Litter; footway cleanliness, repair and patching; graffiti; parking enforcement.
4.	Personal security	Lighting levels, sightlines, natural surveillance, anti-social behaviour, and escape routes.
5.	Crossing points and desire lines	Both formal crossings (Zebras, Pelicans, Puffins) and informal (no specific provision), including consideration of desire lines and the routes that people most want to take.
6.	Road layout and space allocation	The share of space allocated to different users.
7.	Aesthetics	Beauty and interest, public art, fountains, statues, green space - noise, smell, and ugliness.
8.	Traffic	Traffic speed and volume, air pollution, noise and smell.

Each of these categories is described below, followed by some sample questions as set out by Living Streets.

1. Footway surfaces and obstructions

Introduction

1. The condition of footway surfaces is an obvious issue for most pedestrians.

At its most extreme, the absence of any footway at all can make a journey on foot all but impossible. More surprising, perhaps, is that footway condition and the possibility of a footway fall is the most important factor for older people in making a decision to walk - more important even than the distance of the intended journey.

Footway obstructions are also a pretty obvious issue for people on foot, whether they are permanent obstructions (poorly positioned street furniture such as bollards, guardrails, bins, seats, lampposts), or temporary ones (parked cars, advertising boards, shop-front displays and cafe seating, road works).

Questions

- Are footways in good condition? Are appropriate materials, such as tactile paving, used and installed correctly?
- Is there a problem with poor drainage and standing water after rain? (Properly called 'ponding').
- Are dropped kerbs fully flush? (A lip of as little as 6mm can be a real obstruction to wheelchair users).
- Is street furniture well positioned? Is it aligned to allow free passage, or does it necessitate constant changes in direction?
- Could some street furniture be removed?
- Are there temporary obstructions on the footway? (Rubbish sacks, parked cars, advertising boards etc.)
- Do shop-front displays get in the way? (If there is plenty of footway width, then vibrant shop-front displays can be an asset, making walking more interesting).
- Are crossovers (vehicle access across the pavement) well installed, with no steps for pedestrians? Are any of the crossovers redundant?

2. Facilities and signage

Introduction

Facilities for pedestrians include the obvious - public toilets, benches, drinking fountains and litterbins, and the not so obvious - street lighting and trees.

Trees are both popular and useful. They provide shade from summer heat and shelter from

winter rain. But they also drop leaves that can make footways slippery and drip water long after the rain has stopped

Pedestrians need signs to different destinations, and street nameplates at every corner to tell them where they are now. Other important signs are town plans, as well as information signs - in parks and on public toilets giving opening times, for example and warning signs detailing penalties for dog fouling or dropping litter.

Questions

- Are sufficient benches provided? Are they in places with interesting views (of other people, of street activity)? Are benches placed at regular intervals on key routes?
- Do direction signs point to major destinations? Do they form part of a coherent network of signs? Do they indicate times/distances to destinations? Are they clear and easy to read? Are they placed where they are needed? Do they point in the right direction? Do they obstruct the footway?
- Signs - are street nameplates provided on every corner of every junction? Are they well positioned and easy to read?
- Are public toilets provided? Are they clean and well maintained? Is there evidence of the need for more toilets? (You can often find - or rather smell - this evidence in quiet doorways and alleys).
- Are litterbins provided? Are they regularly emptied, or overflowing? Are they conveniently placed, without causing obstruction?
- Are street trees in good condition? Do support ties strangle them - have they outgrown their metal surrounds? Are tree pits on the same level as surrounding footways? Are footways being lifted or damaged by roots? Is there scope for the planting of more trees?
- Are lighting levels appropriate for pedestrians? Is lighting attractive, or merely functional?

3. Maintenance and enforcement issues

Introduction

Maintenance and enforcement issues create some of the most serious problems for pedestrians, as well as the most numerous. They typically make up around 50% of all the issues identified on Community Street Audits

Things to look for include: litter; footway cleanliness; repair and patching; graffiti; parking enforcement including footway parking; illegal footway cycling; footway encroachment by

shop-front displays.

Questions

- Is street cleaning adequate?
- Are footways well maintained, with repairs made in matching materials?
- Are parking controls properly enforced?
- Is overhanging foliage cut back properly?
- Is there a problem with footway cycling? Are cycles locked to street furniture, blocking footways?
- Is graffiti removed promptly and thoroughly?

4. Personal security

Introduction

Personal security is a major factor in the decision to walk or not. Actual levels of personal security and perceptions of personal security are not the same thing - both are important, but the perception of how safe somewhere feels is probably more important. People don't look up crime statistics for their high street or local park before walking through them. The decision on where and whether to walk is primarily based on how safe people feel.

Five factors

There are five main factors affecting the actual and perceived levels of personal security: lighting levels, sightlines, natural surveillance, escape routes, and anti-social behaviour. Places where two or more of these problems occur together can feel very dangerous indeed.

Lighting should be bright enough to allow people to identify the intentions of others and react appropriately. It should minimise dark areas. Attractive purpose-designed lighting in pedestrian areas can enhance the feeling of safety.

Good sightlines enable people to see where they are going, and whether others are close by. Blind corners, enclosed and narrow walkways, overgrown vegetation, high walls, and bus stop advertisements can all create poor sightlines.

Other people, both on the street and in buildings, provide natural surveillance. Check for windows overlooking pedestrian routes and high levels of activity day and night. Fear of crime in open spaces is largely influenced by a lack of natural surveillance.

Escape routes provide reassurance that a potential threat can be avoided. Long footbridges and subways often feel threatening because no escape route is available. When coupled with poor sightlines (e.g. in a subway with sharp corners), a lack of escape routes can make people feel particularly unsafe.

Anti-social behaviour, or signs that it has occurred, can make places feel unsafe. Noisy after-hours revellers may be harmless, but they can still cause concern. The presence of graffiti or petty vandalism sends a message that no-one cares about a space, and by extension that no-one cares about those who walk in it.

Questions

- Do some places have a reputation as dangerous places?
- Is there evidence of anti-social behaviour?
- Are lighting levels sufficient to reassure wary pedestrians?
- Are sightlines blocked?
- Are there sufficient exit routes?
- Is there plenty of pedestrian activity do buildings nearby overlook the street?

5. Crossing points and desire lines

Crossing the Road

People need to cross the road everywhere. This can be made easier with:

- Crossings that give them priority over traffic (Zebras)
- Signal controlled crossings that give motor traffic priority, and where pedestrians have to wait to cross (Pelicans, Puffins, Toucans)
- Refuges and pavement build outs that give pedestrians some protection from traffic, but no priority
- Traffic calming can also make it easier and less hazardous to cross the road.

Desire lines

Desire lines are the routes people most want to take. Desire lines are often straight lines (but not always), and they can be blocked in all sorts of ways - by guardrails and other street furniture, by busy roads and even by buildings. Blocked desire lines discourage pedestrian movement. Sometimes you can see physical proof of the existence of desire lines - as beaten paths across green space, or trampled flowerbeds around car parks. This is usually

not wanton vandalism, but often reflects a failure to provide intelligently for pedestrian movement.

Questions

- Is provision for crossing appropriate for the numbers crossing and the prevailing traffic conditions? Are the needs of all users accommodated?
- Do light-controlled crossing timings expect too much patience from pedestrians waiting to cross? Is sufficient time allotted to enable all pedestrians to cross in safety? Is an extra pedestrian phase needed between vehicle flows to reduce waiting times?
- Are desire lines accommodated or blocked? Are adequate crossing facilities provided at key desire lines?

6. Road layout and space allocation

Introduction

Constant changes occur to the way we organise the highway (the carriageway and footway combined). The kerb line moves back and forth, special lanes for buses and cycles are installed and some space is designated 'shared use'.

How much space is allocated to pedestrians can have a major impact on the ease and attractiveness of walking. The policy of trying to provide for increasing motor traffic in towns and cities continues to be questioned; meanwhile local authorities are committed to encouraging more walking. This may make it possible to increase space for pedestrians.

Questions

- Do people on foot have at least enough space to cope with peak pedestrian flows?
- Does the road layout fairly reflect the conflicting needs and volumes of different user groups (traffic, people on foot, cyclists)?
- Is there any 'dead' carriageway space that could be usefully reallocated to pedestrians (often marked with diagonal white stripes)?
- Are footways wide enough to comfortably accommodate wheelchair users and people with baby buggies, delivery carts and shopping trolleys?
- Are cyclists riding on the footway due to inadequate provision for them on the carriageway?

7. Aesthetics

Introduction

If walking is to be encouraged, we need to ensure streets and spaces are pleasant to use. Functionally efficient spaces for pedestrians can still be very unpleasant and discouraging.

The aesthetics of public space are largely dependent on the design quality of the space itself and the buildings and other features within sight

This does not mean that the best spaces are uniformly 'pretty'. Some of the best public spaces are the result of years of development and change, creating a place which works well, but is filled with variety and interest, contrast and detail. There are also carefully designed public spaces created from the finest quality materials and immaculately maintained, but which don't inspire or engage. The secret to aesthetically successful public space is that it should function effectively, be built on a human scale, and create a sense of place.

This can be difficult to achieve if the needs of motor traffic dominate - car parks, traffic signs, crash barriers, one way systems and roundabouts are rarely a pleasure for people on foot. They often make a place into an ugly mess.

If all this seems rather obscure, recognise that we do not all respond to our environment in the same way. Go out and experience good and bad spaces, describe what you feel, and trust your judgement.

Questions

- Is there beauty and interest, public art, fountains, statues, green landscaping? Is there variety and harmony?
- Is the space noisy, smelly and ugly?
- Has thought gone into the use of street furniture and paving materials, or is it mismatched or thrown together?
- Is local distinctiveness recognised and reinforced?
- Are the street frontages filled with variety and interest? Or do blank walls and uniform, boring facades predominate?
- Are views to distant landmarks celebrated or ignored?
- Are benches positioned to make best use of the sun? Are alternative seating places provided in the shade?

8. Traffic

Introduction

Traffic presents a direct threat to pedestrians in the form of crashes, and indirectly from air pollution. Around 3,500 people are killed in car crashes every year in the UK and in 2001 road deaths went up. More than 300,000 people a year are injured. It is estimated that 24,000 people die prematurely each year in the UK as a result of air pollution. In urban areas, around 90% of air pollution comes from traffic.

Traffic speed, noise, smell and volume discourage people from walking.

Speeding traffic makes it difficult and dangerous to cross the road. Fear of speeding traffic is one of the main reasons people give for not walking.

Traffic noise accounts for 66% of the total noise generated outside dwellings in the UK. Traffic noise makes conversation difficult and, even as background noise, can destroy the peace and tranquillity of public spaces. Traffic noise increases stress and has been linked to health problems in children.

In addition to the adverse health impacts of traffic-generated air pollution, the use of cars for short urban journeys, adds the stench of unburned fuel to the pollution cocktail, making the walk to school, work or shops particularly disagreeable.

Traffic volumes directly affect the quality and range of pedestrian activity. The more heavily trafficked a street is, the less pedestrian activity takes place.

Questions

- Does traffic intimidate and endanger?
- Are traffic speeds too high, bearing in mind the uses of the street (e.g. shopping and residential, as well as through traffic)?
- Are levels of permitted parking appropriate for a particular streetscape?
- Do parked cars obstruct sightlines, making crossing the road more hazardous, or detract from the attractiveness of the streetscene?

Reference

Living Streets (2002) *DIY Community Street Audits*, London: Living Streets

APPENDIX 9 – DEVELOPING A SCHOOL TRAVEL PLAN (STP)

STAGE		DESCRIPTION
1	SURVEY	Conduct a survey to determine current travel modes and distances, identify key barriers to mode shift away from single occupancy car trips to and from school and seek suggestions from students, staff and parents.
2	FOCUS GROUP(S)	Conduct to ascertain specific local barriers, opportunities for change and improvements and appropriate marketing/promotional themes.
3	DEVELOP SCHOOL TRAVEL PLAN	<p>Develop a STP in the school, by students, teachers, other interested parties to include a range of measures:</p> <ul style="list-style-type: none"> • Information/Promotion/Events (maps, brochures, newsletters, walk/ride to school days/weeks or months, incentive and reward programs, School Policy to support sustainable and 'Active' transport, etc.). • Infrastructure (e.g. Bike shelters/parking racks, bicycle paths, road treatments). • Site specific or innovative solutions (eg early bell for walkers/cyclists, cycle and walk clubs, meeting places for walking/cycling, car pooling system assisted by the School and implemented by parents etc).
4	IMPLEMENT THE STP	By the school with assistance of local council(s), VicHealth, TravelSmart Education, DOI Public Transport Team, and others as identified – possibly sponsors, parents/benefactors.
5	AFTER ONE TERM OF IMPLEMENTATION	Survey again to determine mode shift and determine lessons from the process for ongoing improvement.