

Growth in the City of Melbourne, 2012 - 2031

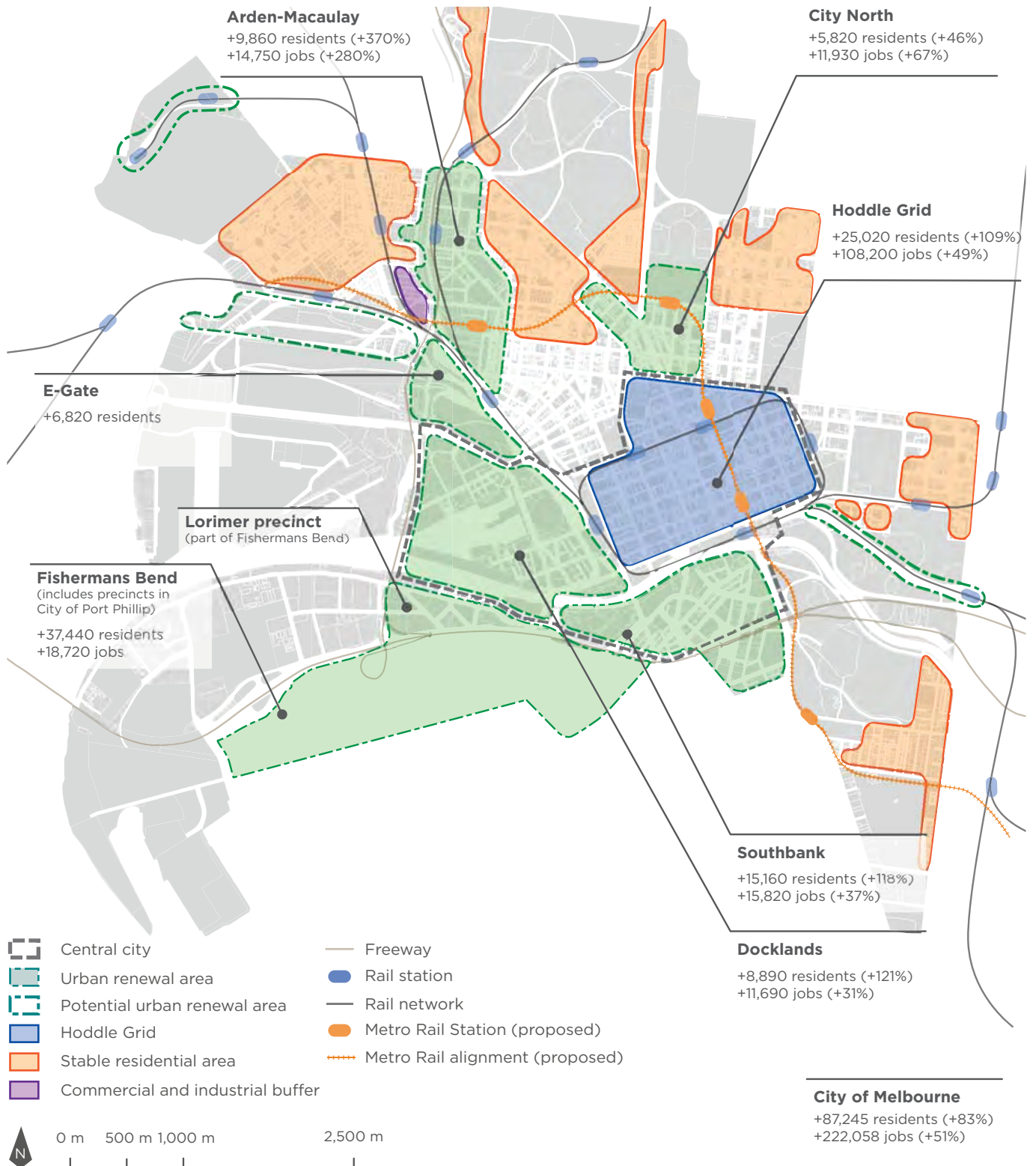


Figure 7: City of Melbourne growth 2012 - 2031

THE WALKING CITY

Connecting to public transport

Public transport nodes attract the largest and most concentrated walking activity in the city. For example, 171,160 people use Flinders Street Station each weekday, 111,290 use Southern Cross and 47,360 use the Federation Square tram stop (PTV, 2011a, 2011b).

Public transport use has grown strongly in recent years and is expected to continue to grow based on central city job growth and new infrastructure such as Melbourne Metro and Regional Rail Link. Providing an efficient walking network supports public transport operation.

Increases in tram patronage and crowding at tram stops will also require the conversion of some high-intensity tram stops to new designs that provide more space for people waiting, more permeable access from footpaths and potentially low-speed road space to increase opportunities for pedestrians to cross roads.

The walking network

Increasing the number of pedestrian connections and ensuring new developments are permeable is a challenge for the future.

A rich walking network with many routes, links, crossings and connections provides more walking choices, spreads the pedestrian load, stimulates more walking, reduces walking times, creates more economic activity by bringing people into new spaces and reduces walking distances.

New developments must be able to provide new connections whilst remaining viable both in their own right and in order to deliver a net community benefit through the viability of the development yield and the pedestrian network overall.

Links may be footpaths, lanes, shared zones and formal or informal pedestrian crossings. They also include part-time links through arcades and other public connections through private property.

The walking network in the Hoddle Grid is relatively rich with many through-block connections, mid-block pedestrian crossings, laneways and little streets. There are still opportunities to add connections to this network. In urban renewal areas, however, the walking network is relatively less rich and will require significant improvement to achieve its development goals.

Safety

In the City of Melbourne, a pedestrian is killed or sustains a serious or other injury every two days. There were 956 pedestrians injured or killed in the five years to 2011 (VicRoads, 2011, p. 7). The City of Melbourne has the highest rates of pedestrian death and injury in the state.

The road safety approach in a people city is to reduce death and injury by addressing the road danger posed by vehicles while supporting the growth of walking and the expansion of the walking network. City of Melbourne's Road Safety Plan 2013–2017, approved in July 2013, seeks to deliver an environment in which pedestrians are prioritised and supported by a safe, attractive and engaging urban environment.

People walking in Melbourne need to feel personally secure. A high level of personal security will encourage more people to walk more, including at night and in places with which they are not familiar. This encourages more economic activity. Passive surveillance is a key factor in creating a feeling of personal security.

Balanced transport priority

Walking is the most fundamental mode of travel in the City of Melbourne and decisions about the transport network and land use should reflect this priority. The walking network in Melbourne should be planned and managed to increase the priority given to walking to reduce delay and avoid overcrowding.

Access for all

Providing access for people of all abilities and ages is a key component of developing the walking network in Melbourne.

Attractive walking environments

The City of Melbourne will continue to strive to create attractive walking environments. This includes creating walking environments that encourage a variety of uses: places to pause or window-shop, space for kerbside dining, art, seating and expansion of the urban forest.

Pedestrian network volumes

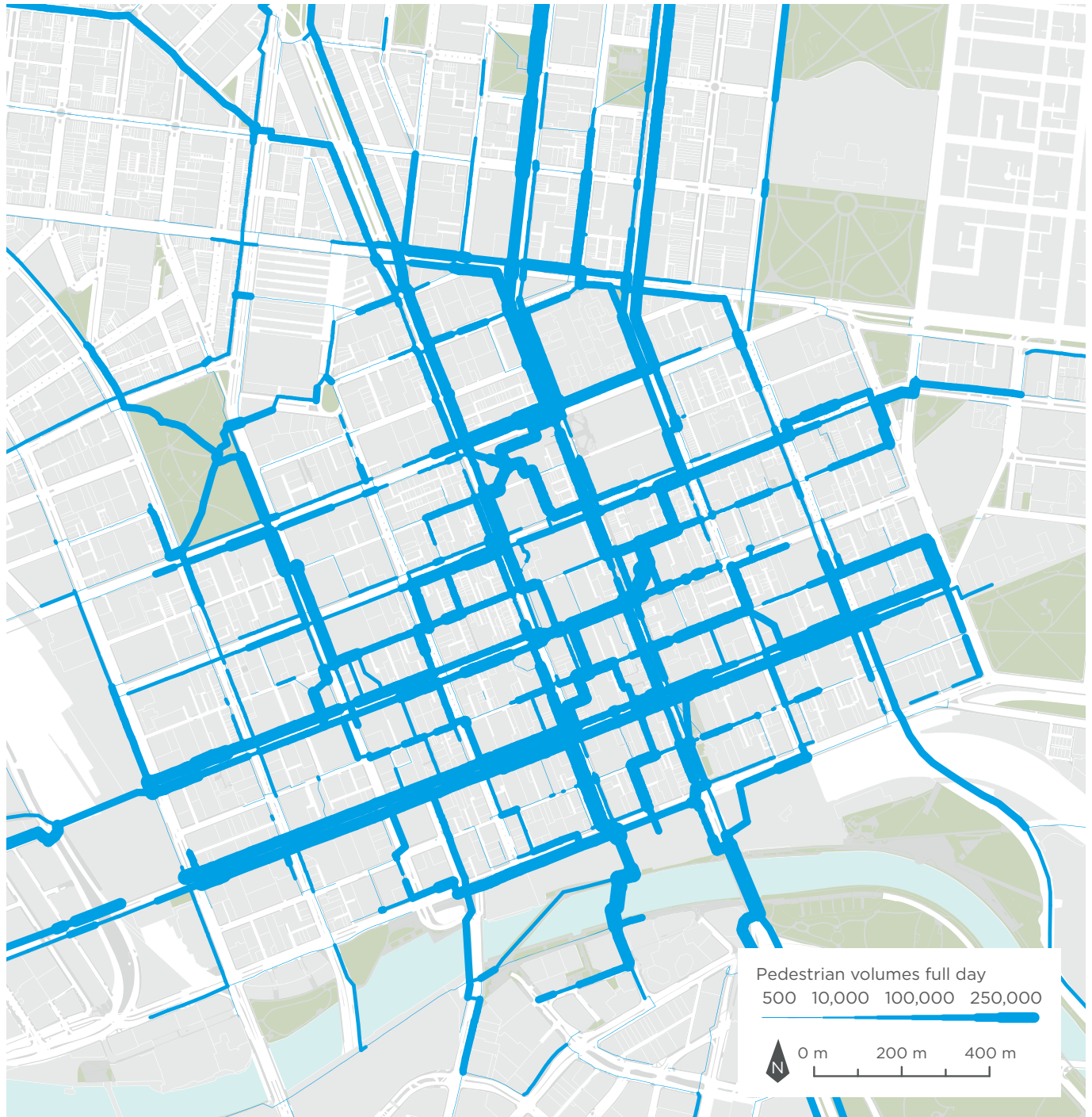


Figure 8. Central city pedestrian dynamic

This map shows the overall walking dynamic across the city by approximating volumes across the pedestrian network. A range of data sources have been combined to approximate where people walk from car parks, train stations and other places in the city to shops, jobs, classes or other activities. Pedestrian counters across the city have been used to refine the results.

Data used includes ABS Census journey to work, Victorian Integrated Survey of Travel and Activity (VISTA), City of Melbourne Census of Land Use and employment (CLUE) and the City of Melbourne Pedestrian Counting Program information.

GOALS

1. Expand the pedestrian network

The City of Melbourne Council Plan 2013-17 has a four-year priority of expanding and prioritising a connected, safe and easy to access pedestrian network.

The City of Melbourne will create an excellent and safe walking environment for residents, workers and visitors, with seamless high-priority links between the city's public spaces and the public transport system.

2. Plan for future growth

A key goal of this plan is to accommodate increasing amounts of walking in Melbourne. The city is experiencing significant growth. Figure 9 shows that walking will account for 30 per cent of all trips to, within and from the City of Melbourne in 2030, corresponding to over one million walking-only trips (on top of walking connections to public transport trips) on an average weekday. Decisions about the transport network and land use that affect pedestrians should take into account the likely future growth in numbers of people walking in Melbourne and plan accordingly.

3. Reduce delay

This plan will reduce delays to pedestrians through changes to the walking network, footpaths, intersections and traffic signals.

4. Improve safety

The safety of people walking in the City of Melbourne is very important. This includes personal safety and road safety. The City of Melbourne faces a significant challenge addressing the high numbers of people injured by vehicles while walking.

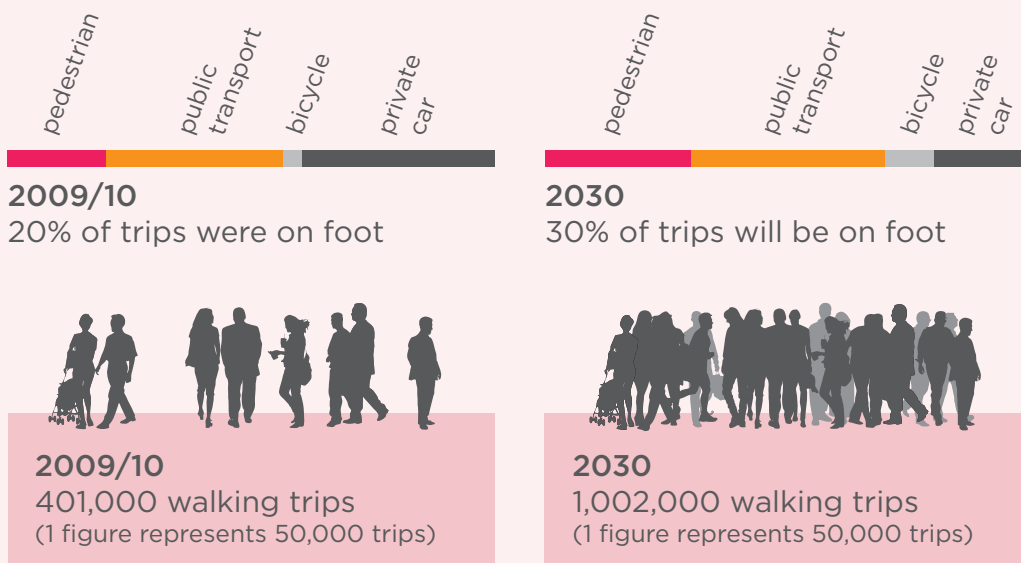


Figure 9. Walking mode share and trip growth in the City of Melbourne



Figure 10. Example of pedestrian crowding at Collins and Swanston streets



ACTIONS

Actions in this plan have been framed within the existing structure of the operations of the City of Melbourne and its stakeholders. This will ensure the effective implementation of these actions to achieve the strategy vision.

1. Planning

- 1.1 A central city subregion walking plan
- 1.2 Using the planning scheme to improve the walking network
- 1.3 Principal Pedestrian Networks

2. Street Management and Operation

- 2.1 SmartRoads
- 2.2 Signal operation
- 2.3 Pedestrian street hierarchy
- 2.4 Investigate streets as places
- 2.5 Investigate new Walking Streets
- 2.6 Investigate High-Mobility Walking Streets
- 2.7 Create new shared zones
- 2.8 Making roads safer for pedestrians
- 2.9 Walking navigation
- 2.10 Stop lines
- 2.11 Travel behaviour change
- 2.12 Promoting health

3. Capital Works

- 3.1 Addressing pedestrian crowding
- 3.2 Pedestrian crossings at intersections
- 3.3 Master plans
- 3.4 Access around stations
- 3.5 Tram and bus stops
- 3.6 Increasing the number of formal crossings
- 3.7 Making streets easier to cross
- 3.8 Technical notes

1. PLANNING

1.1 A central city subregion walking plan

Work with the Metropolitan Planning Authority, the Department of Economic Development, Jobs, Transport and Resources (DEDJTR) and Inner Melbourne Action Plan councils to deliver improvements to walking in Melbourne.

Objective

To ensure that planning for the central subregion of Melbourne provides for a high-quality pedestrian network.

Issue

Plan Melbourne identifies walking as a critical element in the economy of central Melbourne. It also proposes that the new Metropolitan Planning Authority facilitate work with subregional groups on shared priorities. Meanwhile, the Inner Melbourne Action Plan, which is made up of the same councils as the central subregion, will need to be reviewed and may be able to be incorporated in planning. Walking must be a high priority in planning for the central subregion.

Rationale

Plan Melbourne, the metropolitan planning strategy, is a framework which articulates a whole-of-government policy direction to integrate transport and land use strategic planning for an expanded central city in 2050. The framework provides a high-level central city transport narrative and strategic transport network corridors for Melbourne.

The framework will also provide guidance to urban renewal precincts, such as Arden-Macaulay, City North and Fishermans Bend. It will highlight potential transport connections in areas where people's preferences for getting around may include walking, cycling and frequent public transport networks that connect destinations both across and within the expanded central city and Inner Melbourne neighbourhoods. This framework will assist short- and medium-term projects to incrementally contribute to the shared long-term vision for transport in the central city.

Implementation

- Work with the Metropolitan Planning Authority, the DEDJTR and Inner Melbourne Action Plan councils to deliver improvements to walking in Melbourne, including capital works and planning scheme amendments to support the Plan Melbourne goal to create a more productive central city.
- Work with the Metropolitan Planning Authority to integrate the highest levels of walking, cycling and public transport use in the planning of urban renewal precincts.
- Work with the Metropolitan Planning Authority to integrate the City of Melbourne Walking Plan into master planning for urban renewal precincts.

The central subregion

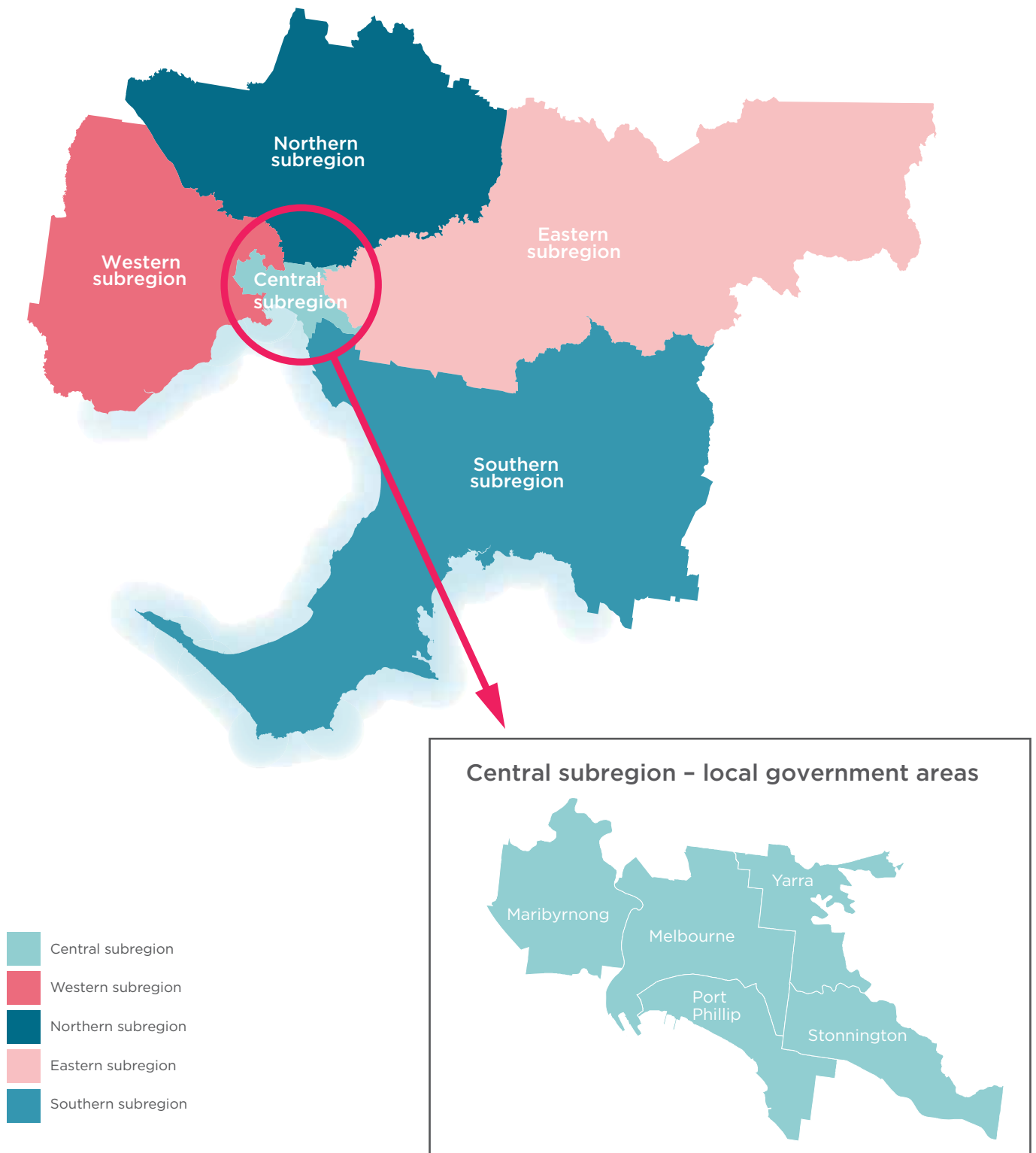


Figure 11: Local government areas in the central subregion

Source: Adapted from State of Victoria, 2013

1. PLANNING

1.2 Use the planning scheme to improve the walking network

Establish a future fine-grained pedestrian network for the City of Melbourne for implementation in the Melbourne Planning Scheme.

Objective

To ensure that land is developed in Melbourne in a way that contributes to the development of a fine-grained walking network with short blocks and many routes, links and connections.

Issues

A fine-grained walking network reduces walking distances and travel times and has been a goal of the City of Melbourne for many years. It increases accessibility and boosts the city's economy in a similar way to other transport infrastructure. Support for the concept is in the Municipal Strategic Statement as well as in structure plans for Southbank, Arden-Macaulay and City North. However, the fine-grained walking network is not clearly established in the Melbourne Planning Scheme. The planning scheme is the tool used to manage the development of private land. Creating a fine-grained network will require many new walking links on private land. It will also identify mid-block road crossing points.

Provisions already exist in the planning scheme (including Design and Development Overlays, Public Acquisition Overlays and Developer Contribution Plans) to require developers to provide through-block links, but these are not always effective or desirable. Developers often provide fine-grained pedestrian links in commercial developments (such as the QV Building at the corner of Lonsdale and Swanston streets), but they can be reluctant to do so for other land uses, particularly residential developments. In these situations, the mechanisms do not serve the broader strategic context of an overall plan for Melbourne's walking network.

Also, previous attempts to establish a fine-grained pedestrian network in urban renewal areas through the

planning scheme have not been justified to the satisfaction of planning panels.

Another issue is specifying the quality of through-block links, such as whether they are open to the air or attractive to pedestrians, levels of sunlight, width and whether they should provide clear sight lines through the block.

In the Southbank precinct (and currently proposed for City North), controls in the planning scheme require pedestrian through-block links to be provided where the average length of a street block exceeds 100 metres (DTPLI, 2014, p. 2). Research shows that the optimum spacing for pedestrian connections in city centre retail core areas may be 50 to 70 metres (Siksna, 1996). However, planning scheme provisions do not specify the exact location of the link and planners are merely obliged to negotiate the link placement with developers as each land parcel is developed. As a result, links may not be provided in the best location.

Work that is needed to support changes to the planning scheme includes:

- specifying a fine-grained pedestrian network that will be developed throughout the City of Melbourne including through-block links on private land;
- assessing the economic contribution and other benefits of a fine-grained walking network to the city's economy; and
- assessing the costs of developing the walking network, including impacts on landowners who would be required to provide the links.

This will involve expanding and improving the current pedestrian monitoring and counting program as well as pedestrian network modelling.

Rationale

The walking network in the City of Melbourne already has a significant impact on the city's economy. Increasing the level of walking connectivity by 10 per cent – for example, by adding through-block links – would increase the value of the overall Hoddle Grid economy by \$2.1 billion per annum or 6.6 per cent. This is because people would then be better connected, particularly to jobs and for work-related walking trips. (CoM & SGS, 2013d)

Through-block links add to the quality of the walking network by:

- shortening walking distances;
- increasing the amount of street frontage leading to business and job opportunities;
- creating more intersections and offering more route choices;
- providing alternatives to crowded routes;
- providing intimate and interesting spaces; and
- enhancing the city's reputation for laneway experiences.

Implementation

- Continue to expand the pedestrian monitoring program to inform decisions about pedestrian planning.
- Develop a model of the walking network to test scenarios for improving the network such as the location of through-block links or predicting future crowding.
- Establish a future fine-grained pedestrian network for the City of Melbourne particularly in urban renewal areas for implementation in the Melbourne Planning Scheme.

1.3 Principal pedestrian networks

Define a principal pedestrian network in the Planning Policy Framework and SmartRoads to complement the fine-grained pedestrian network.

Objective

To ensure that land is developed in Melbourne in a way that contributes to the development of a fine-grained walking network with short blocks and many routes, links and connections.

Rationale

The State Government has been reviewing the State Planning Policy Framework. Part of this review has been to include in the planning system the principal networks for the main modes of travel: motor vehicles, trams, buses, bicycles and walking. One aim of the framework is to ensure that the planning system provides appropriate protection for the operation and enhancement of these principal routes when land is developed. This is a specific objective of the Transport Integration Act to integrate transport and land use planning.

A principal pedestrian network is a designated network of routes in a given area that supports walking trips into and around key destinations. These networks are being trialled and evaluated in four metropolitan municipalities. When this work is complete, City of Melbourne will have more information about how these would work in the central city. City of Melbourne's planning scheme already provides some of the protections for the pedestrian environment that Principal Pedestrian Networks would consider, such as reducing the number of driveway crossovers in high-volume pedestrian areas.

The principal pedestrian network would be included as Pedestrian Priority Areas in VicRoads' SmartRoads system (see Section 2.1).

Implementation

- Work with the Department of Economic Development, Jobs, Transport and Resources to define a principal pedestrian network in the Planning Policy Framework. This would complement the fine-grained pedestrian network and pedestrian priority areas as defined in SmartRoads.

2. STREET MANAGEMENT AND OPERATION

2.1 SmartRoads

Use SmartRoads to assess road space allocation in the City of Melbourne.

Objective

To ensure that the SmartRoads Network Operating Plan gives appropriate priority to pedestrians.

Rationale

The SmartRoads Network Operating Plan is 'VicRoads' system for managing all modes of movement on the road network to deliver the greatest benefit to the community.

The plan allocates priorities for different modes on all roads (such as tram or pedestrian priority). Often a road will have several priority modes; Swanston Street, for example, prioritises pedestrians, cyclists and trams.

Network Fit Assessments gauge the extent to which proposals to change network operations fit with the strategy of the Network Operating Plan. This can include changing traffic signals to give more time to one road or another or removing a lane of traffic to add a bicycle lane or widen the footpath. In areas identified as having pedestrian priority, pedestrian movements are given greater weight in the Network Fit Assessment process.

The current Network Operating Plan prioritises pedestrians in the Hoddle Grid, areas of Carlton, some roads in Southbank and some shopping strips. Reflecting the role of walking in the capital city, pedestrian priority areas in the City of Melbourne need to be expanded to include many parts of Docklands and key streets in Southbank as identified in the Southbank Structure Plan, including City Road as well as parts of St Kilda Road. In the future, as the central city area expands, pedestrian priority will also need to be expanded to urban development areas such as Arden-Macaulay and the Lorimer precinct of Fishermans Bend.

As part of integrating transport land use and planning, the Principal Pedestrian Network, developed as part of the Planning Policy Framework, would become the Pedestrian Priority Area for the City of Melbourne in SmartRoads.

Implementation

- Work with VicRoads and State Government agencies to expand SmartRoads Pedestrian Priority Areas in the City of Melbourne to include City Road and other parts of Southbank, Docklands and other areas.
- Use SmartRoads to assess road space allocation in the City of Melbourne.

Increasing accuracy in measuring pedestrian congestion

The Network Operating Plan uses estimates when counting the numbers of people walking across intersections rather than actual numbers. As a result, accurate assessments of delay to pedestrians at intersections cannot be made.

- Work with VicRoads to continue to improve the knowledge of pedestrian volumes and movements, particularly at intersections, to ensure high-quality data is used in Network Fit Assessments. Explore the use of new technology, including de-identified mobile phone data, to reduce counting costs.

Develop a place-based approach in SmartRoads

SmartRoads provides a framework for making decisions about priority access on the road network, particularly at intersections. It assesses proposals on the basis of their contribution to the efficiency of the transport system. This may benefit pedestrians walking to destinations when travel time is important. However, it has been acknowledged that it does not take into account the concept of high-quality places in the same way. For example, proposals to widen footpaths to improve urban design, plant trees or address pedestrian crowding cannot currently be assessed properly by SmartRoads. The DEDJTR has been working with VicRoads, City of Melbourne and others to develop a complementary place-based analysis to be incorporated into the SmartRoads framework. This would allow improvements to the quality of a place to be compared with or against improvements to improve the efficiency of the transport network.

- Continue to work with VicRoads, the DEDJTR and others to develop a place-based assessment to be integrated into SmartRoads.

Current pedestrian priority areas

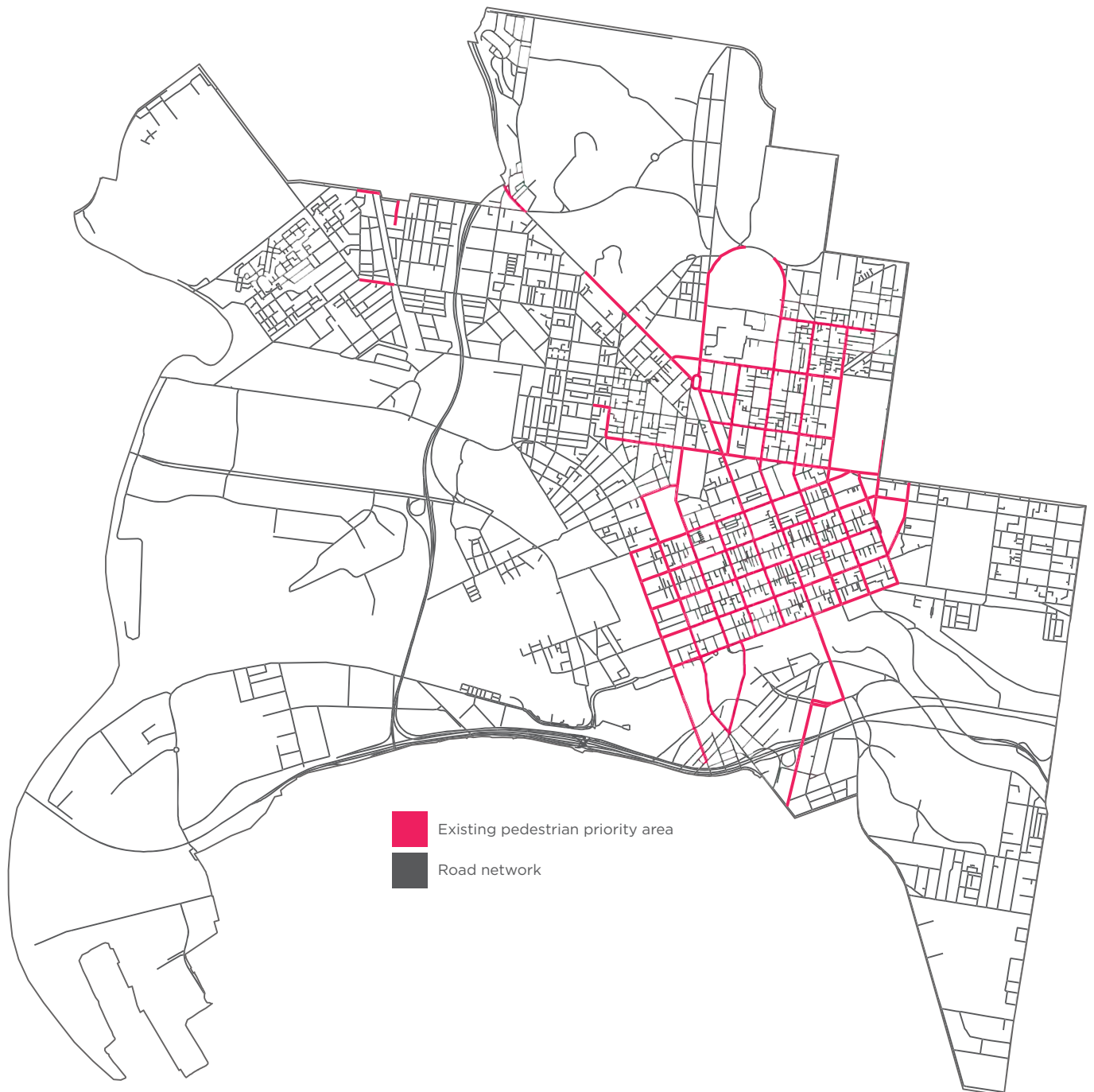


Figure 12: Current City of Melbourne pedestrian priority areas as designated in VicRoads' SmartRoads Network Operating Plan

2. STREET MANAGEMENT AND OPERATION

2.2 Signal operation

Assess pedestrian delay at intersections across the City of Melbourne and develop a prioritised list of projects to reduce pedestrian delay.

Objective

To improve traffic signal operation for pedestrians while balancing priority for all users.

Rationale

Delays to pedestrians contribute significantly to congestion and inefficiency in the City of Melbourne.

Reducing delay to pedestrians at crossings

Delays to pedestrians at traffic signals contribute significantly to traffic congestion costs. The cost of pedestrian congestion grows as the numbers of pedestrians increases.

The City of Melbourne works with VicRoads to review signal timing to maximise its efficiency and achieve the lowest overall delay across all types of road users. In September 2013, signal times on King and Spencer streets were reduced to bring them closer in alignment with other intersections in the Hoddle Grid, where most signals operate with a 90-second cycle during peak periods. Previously, King and Spencer streets operated at longer cycle times (110 and 120 seconds) during peak periods, and on King Street, north-south movements received a disproportionately high level of priority (72 per cent in the am peak and 66 per cent in the pm peak). This created significant delays for people crossing King Street. Only one third of people using King Street (in all modes of transport) are travelling north-south. Two thirds are travelling east-west, with many people walking to and from Southern Cross Station or travelling in trams and buses.

There are also other techniques for reducing delays including extending the time that the walk signal is displayed without affecting other uses at the signal.

Implementation

- Assess pedestrian delay at intersections across the City of Melbourne and develop a prioritised list of projects to reduce pedestrian delay, focusing on the intersections with the most pedestrians first.
- Reduce traffic signal cycle times on Spencer Street at Collins Street and at Flinders Street.

Auto-on pedestrian phase signals

At crowded intersections, or intersections through which many pedestrians move, the pedestrian phase should be automatically activated rather than pedestrians being required to press buttons to activate crossings.

These signals are called auto-on pedestrian phase traffic signals; they automatically activate the pedestrian signal when traffic lights turn green without needing someone to press a button. They reduce wait times for pedestrians as pedestrians do not miss an opportunity to cross if they reach the intersection after the time a walk phase could start. They give pedestrians a similar level of service to motorists, public transport vehicles and cyclists who do not need to manually activate lights.

The City of Melbourne will work with VicRoads within the current Council term (until 2017) to convert signalised intersections located in the proposed auto-on pedestrian phase areas shown. Traffic signals will be set up to automatically activate the walk signal between 6am and 9pm. After 9pm the noise of pedestrian signals may have a negative impact on residential areas. Beyond 2017, auto-on pedestrian phase signals will be further expanded as the city grows.

Implementation

- Expand the implementation of auto-on pedestrian phase signals at intersections in the area shown where compatible with prevailing signal timings.