Connecting People to Places:

AN AGE FRIENDLY WAYFINDING STRATEGY

AITPM Excellence Awards 2019

Submission for the *Transport Planning* Category

City of Norwood Payneham & St Peters

infraPlan & URPS

Supported by Office for Ageing Well

Government of South Australia
SA Health

PROJECT TITLE	**Connecting People to Place – an Age Friendly Wayfinding Strategy**
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1 Introduction

We are pleased to submit our entry of the '***Connecting People to Place – an Age Friendly Wayfinding Strategy***' into the 2019 AITPM Excellence Awards, under the category of Transport Planning.

InfraPlan (in conjunction with **URPS**) were engaged by the **City of Norwood Payneham & St Peters** to develop an *Age Friendly Wayfinding Strategy*. The project was funded by the **Department of Health (SA) – Office for Ageing Well**, through their Age Friendly Community Grants.

The central aim of the *Age Friendly Wayfinding Strategy* was to encourage older residents to walk between destinations in the City of Norwood, Payneham & St Peters, and facilitate healthy and active 'ageing in place'. The project delivered a framework for identifying points of interest that are linked by safe walking routes and tested Australian Standards in order to develop a set of signage templates and guidelines to plan, design and implement age-friendly walking routes.

The key objectives of the *Age Friendly Wayfinding Strategy* were to:

- Enable more people to choose walking as a form of transport;
- Increase health, awareness and confidence in older people; and
- Develop a template design for universal and age-friendly wayfinding signage.

The City of Norwood Payneham & St Peters (the City) is home to high proportion of people over 65 (19.5%) when compared to the Greater Adelaide region (14.7%) and it is anticipated that significant growth in this age cohort will continue.

There are various opportunities and challenges associated with an ageing population. Older people are a significant source of social, cultural, and economic capital, and opportunities arise from their participation in the life of a community. These opportunities are life long, however, some older people have reduced transport options and may experience various forms of difficulty in negotiating the outdoor environment due to loss of mobility, hearing, vision, memory and/or cognitive skills. This can result in a fear of leaving home, which in turn reduces independence, social connectedness, health and wellbeing. It also reduces a person's ability to participate in, and contribute to, the wider community.

Enabling older people to confidently navigate the City encourages continued or increased use of community places, spaces and amenities as people age. It also benefits people at all stages of life, with diverse abilities and contributes to a more resilient built environment.

The *Age Friendly Wayfinding Strategy* provided Council with a framework to develop a universally accessible wayfinding and signage system throughout the City that increases transport choice, health and confidence amongst older residents and others with diverse abilities. It seeks to position Norwood, Payneham & St Peters as an age friendly, inclusive and people-focused City that encourages older residents to remain active and connected to the community.

This project contributes to emerging best practice in transport planning for ageing populations by testing established standards and extensive end user engagement.

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2 Relevance to the category

As Australia's population continues to age, supporting mobility and social inclusion will become an increasingly important responsibility of transport professionals. This significant demographic change demands action to ensure that the needs of all residents can continue to be met and Australia's cities and regions are resilient and responsive to change.

The *Age Friendly Wayfinding Strategy* delivered a targeted, yet repeatable framework that transport planners and engineers may follow to deliver a universally accessible built environment. The Strategy deals with the challenges that older people may experience in navigating the built environment and accessing goods and services, with fewer mobility options.

This submission is relevant to the **Transport Planning Category** as it is a city-wide, strategic document that sets a framework for the development of age-friendly walking routes and inclusive wayfinding across the City. The *Strategy* incorporates elements of pedestrian planning, network planning and multi-modal planning. When implemented city-wide, there will be more transport opportunities for a demographic cohort who may otherwise feel isolated and remain indoors.

3 Excellence Attributes

By 2030 Australia's changing demographics will play a huge part in transport planning.

This project focused on ensuring that older people can maintain their mobility and access the services and activities that support their health and wellbeing, their independence and their continued participation in, and contribution to, the social and economic life of their community.

It represents excellence by establishing transferrable parameters for age friendly walking routes and wayfinding signage and delivering tailored solutions that were thoroughly tested with the intended user group to increase awareness, confidence and the likelihood of older people walking to destinations of interest.

The *Age Friendly Wayfinding Strategy* has a number of merits that are worthy of sharing with the broader transport planning and engineering industry, particularly given its focus on contemporary issues of aging populations. Some of the key excellence attributes of *the Strategy* include:

- Contributing to emerging best practice in transport planning for ageing populations;
- Enhancing knowledge in the transport planning profession by testing Australian Standards in signage and symbol interpretation for people with diverse abilities and developing universal design elements;
- The use of specialist technical skills and knowledge-sharing within the multidisciplinary project team that included engineering, planning, accessibility, public health and community development professionals;
- Extensive, interactive and inclusive engagement methods with a diverse range of end-users through a pilot project; and
- Upskilling Council staff and the community with a Toolkit and Train the Trainer sessions so that the strategy can be implemented city-wide.

4 Originality and innovation

The *Connecting People to Place – an Age Friendly Wayfinding Strategy* is innovative in its concept and is Australia's first strategic document directly related to the wayfinding signage needs of an ageing population.

Some innovative aspects of the *Age Friendly Wayfinding Strategy* include:

- Multidisciplinary collaboration between Council, URPS, Office for Ageing Well and InfraPlan;
- Testing of Australian standards and guidelines surrounding universal design and wayfinding signage; and
- Development of a transferrable toolkit and roll-out process so that Council and the community can implement the Strategy city-wide.

4.1 Multidisciplinary collaboration

The development of the age friendly wayfinding strategy required collaboration across key disciplines that contribute to studies of built environments and ageing populations.

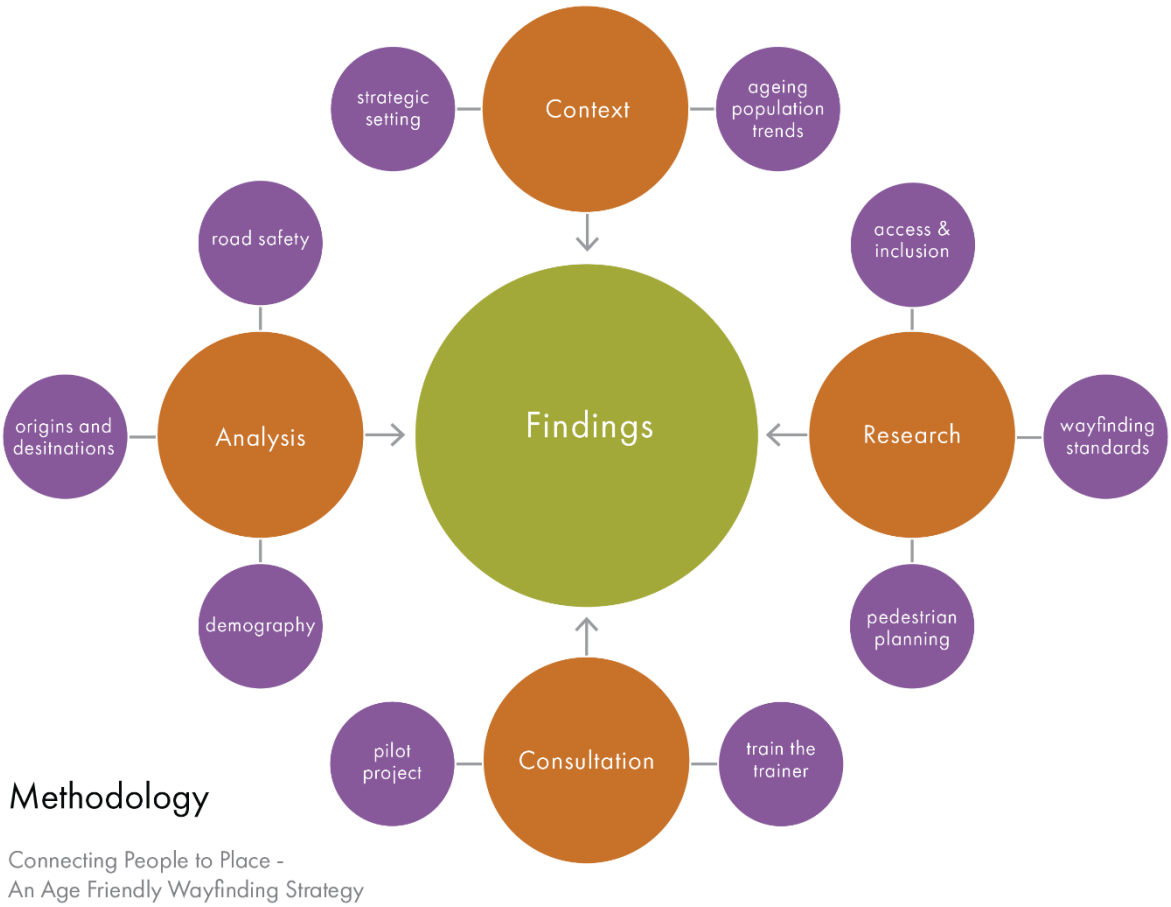


Figure 1: Multi-disciplinary collaboration

As ageing populations increasingly dominate the social fabric of communities, public health and community development professionals continue to seek better ways to assess and modify built and social environments to positively impact health. The methods of altering the built environment draw on multiple disciplines and require collaboration and cross-learning.

The project team comprised experts from a range of disciplines that included Transport Planning, Traffic Engineering, Urban Planning, Access Consulting, Social Planning, Public Health and Community Development. We collaborated closely throughout the project to draw on the relevant expertise of each discipline and apply these in the assessment of the built environment.

Table 1: Multidisciplinary project team - expertise and roles

Discipline	Expertise	Role in the project
Urban Planning	Analysing the technical and socio-political processes that shape land-use patterns and community design.	Use of geographic information systems (GIS) to extract measures of density and land-use mix from existing data sources.
Social Planning & Public Health	Examining social context, behaviour and understanding the importance of place to health.	Develop an evidence-base through social and cultural research and access and inclusion planning to inform decisions.
Transport Planning	Developing transport networks and strategies that encompass the needs of all transport users and consider environmental, efficiency, functionality and safety issues.	Use of measures drawn from urban & social planning analysis to understand transport demands and inform network planning to ensure that walking routes are physically and demographically relevant.
Traffic Engineering	Assessment and design of transport related infrastructure by analysing data, identifying problems, and solving them with innovative solutions that meet relevant Standards.	Footpath safety auditing and recommendations for infrastructure upgrades. Design of signs that comply with Australian Standards while also responding to the identified needs of elderly users.
Access Consulting	Understanding of Universal Design elements and accessibility requirements for all ages and abilities.	Input to sign design and footpath safety audit that satisfies the requirements of the DDA.
Community Development	Engaging communities in making sense of issues which affect their lives and responding to needs through empowerment and active participation.	Develop inclusive consultation activities that and encourage participation and assessment of feedback.

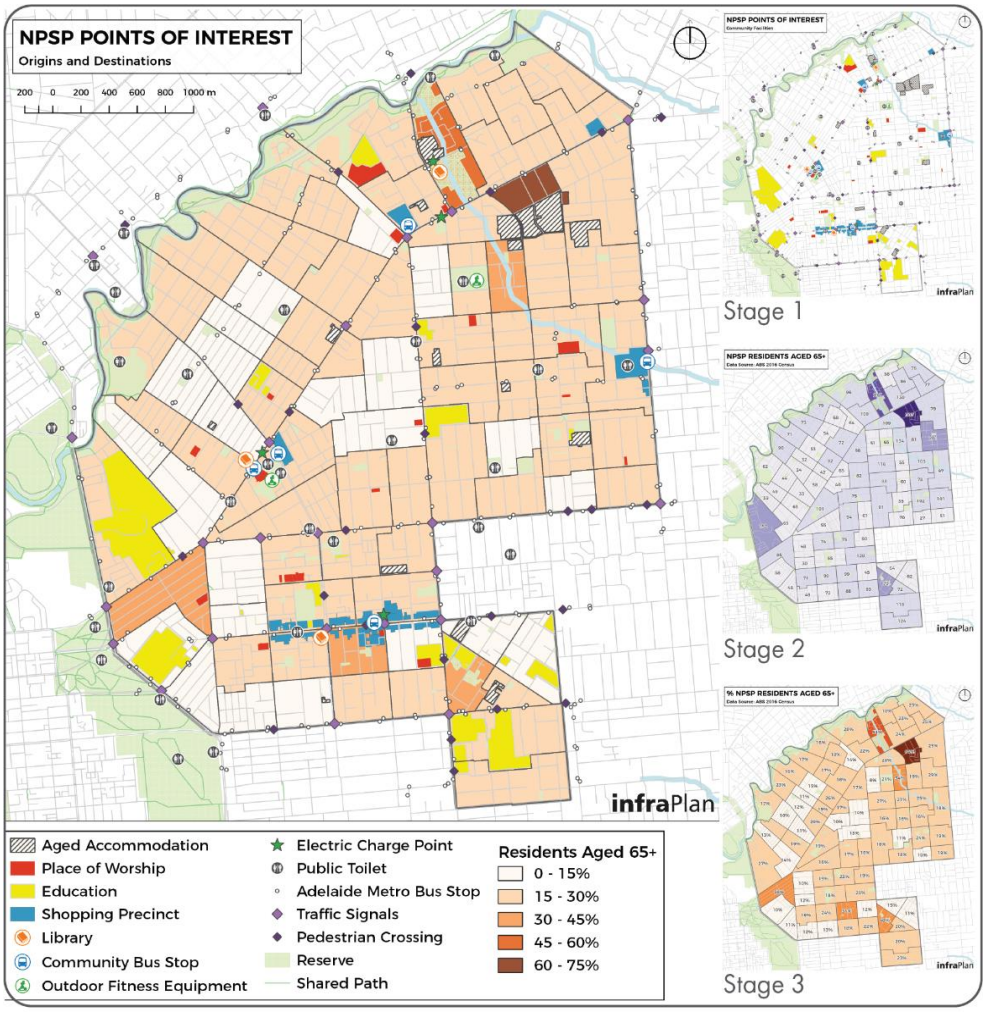
The scope of the strategy paved the way for new and innovative approaches in pedestrian planning and wayfinding to address specific needs and issues relating to ageing populations. The multi-disciplinary project team collaborated to develop innovative methodologies.

Determining Pedestrian Desire Lines & Walking Potential

Holistic transport solutions are best developed by asking: 'why are people moving?'. In the context of this *Age Friendly Wayfinding Strategy*, the multi-disciplinary team was able to gain a deeper insight into the transport demands generated by an ageing population due to extensive cross-collaboration and knowledge sharing.

The project team developed a methodology to identify the locations that were likely to have the most walking potential among older residents. The three-stage process is detailed below, along with the final origin and destination map (See Figure 2). The process highlighted areas where there is the most potential to increase the number of walking trips among older residents, and where Council would likely achieve the best value for money on investment in wayfinding infrastructure. The methodology for this analysis integrated the cartographic capabilities of geospatial information systems (GIS), pedestrian planning fundamentals and the identification of origins and destinations or 'trip generators' specific to the target demographic.

The output formed a guide to demonstrate the potential walking 'desire-lines' between the clusters of residents aged 65+ years and appropriate services/locations. This was instrumental in determining an appropriate route for the pilot project engagement activities and can be used by Council as a resource to roll-out additional age-friendly routes into the future.



Stage 1: Age-friendly destinations were identified in collaboration with Council and URPS.

Stage 2: The number of residents aged 65 years and over were mapped using ABS 2016 Census data by SA1 Geography.

Stage 3: This data was also expressed as a percentage of residents aged 65 years and over.

Figure 2: Pedestrian Desire Lines & Walking Potential GIS Methodology

4.2 Testing of Australian Standards and Guidelines

The Strategy involved a review of relevant legislation, Australian standards and guidelines pertaining to accessibility, traffic control and signage, as well as a best practice review of national and international ageing, universal access design, access and inclusion strategies and research papers.

These included:

- Australian Standard 1428.1 and 2 for signage
- Australian Standards 1428.1, 1428.4 and 4586 for footpaths, ramps and walkways
- AS 1744:2015 Standard alphabets for road signs - metric units
- AS 2700 -2011 Colour standards for general purposes
- AS 1742 Set:2010 Street name and community facility name signs
- AS 2156.1 - 2001 Walking Tracks - Classification and signage
- ISO 7001:2007 Graphical symbols - Public information symbols
- AS 1428.1 – 2009 Design for access and mobility - General Requirements for Access - New Building Work
- AS 1428.2 - 1992 Design for access and mobility - Enhanced and Additional Requirements - Buildings and Facilities
- AS/NZS 1428.4:1 - 2009 Tactile Ground Surface Indicators for the Orientation of People with Vision Impairment
- AS 1428.5 Design for access and mobility - Communication for People who are Deaf or Hearing Impaired
- AS/NZS 1158 Set:2010 Lighting for Roads and Public Spaces
- Disability (Access to Premises - Buildings) Standards 2010
- AS 4586 - 2013 Slip Resistance Classification of New Pedestrian Surface Materials

Various elements of these were adopted and developed into two signage types (Standard blue and Council green) and tested through engagement to ascertain preference for future signs (See Figure 3 & Figure 4). Both signage options were tested with community members aged 65 and over throughout the pilot project where it was agreed that Standard Blue background (rather than Council-specific colours), Univers Font, and simple, clutter-free signs are preferred.

Some of the key findings from testing the signage types with end user groups were that there was a lack of readily available, standard icons that were easily understood (such as Electric charging for mobility devices, playgrounds and BBQ's). It was also expressed that the direction of the pedestrian icon could be confusing, particularly when contradicting the direction of arrows. The signs were amended based on community feedback, without varying from the requirements of the Standards.

Figure 3: Blue test sign from Library to Linear Park

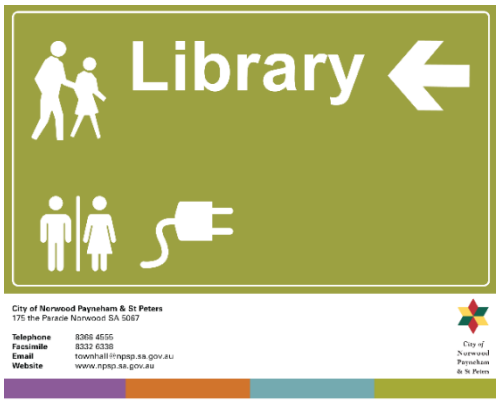


Figure 4: Green test sign from Linear Park to Library, with Council details and logo

4.3 Development of a transferrable Toolkit

Due to funding limitations, the City of Norwood Payneham & St Peters requested that the project team develop a toolkit that would enable Council staff to plan, design and develop future age-friendly walking routes.

A pilot project methodology was developed, with view that this methodology can be undertaken by local volunteers to test new routes with various community groups in the future. The pilot project methodology was translated into a 'volunteer guide' handbook. We facilitated Train-the-Trainer sessions with Council staff and volunteers so that this Strategy could be rolled-out city-wide as funding permits. The steps are summarised in the flow chart in Figure 5.

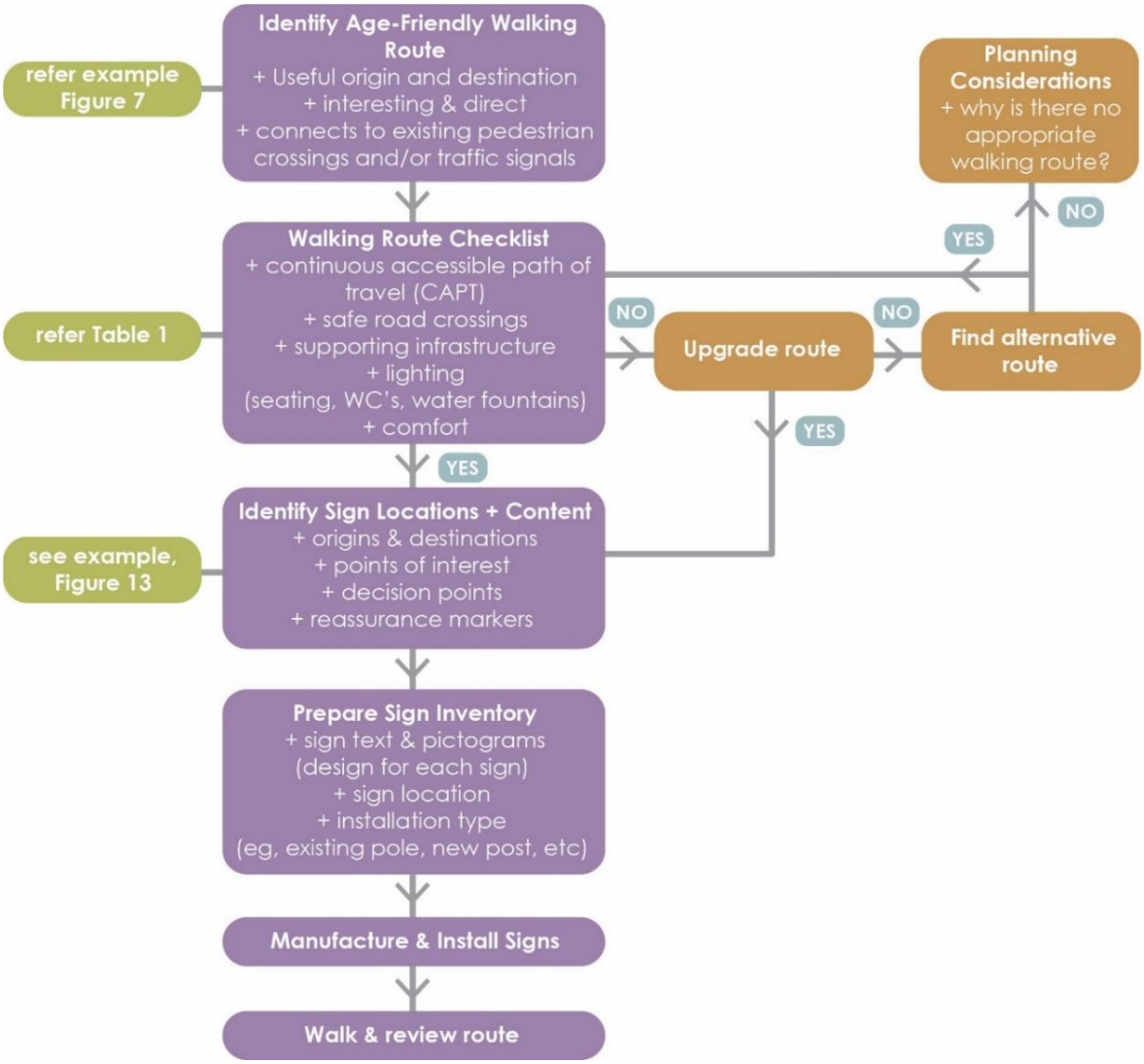


Figure 5: Plan, design and implementation Flow Chart

As part of the toolkit, a footpath audit checklist was also prepared for Council staff, that specifically considered the safety and accessibility needs of people with a range of mobility issues.

"If something as basic as a footpath is not up to scratch for our current population, now is time to start planning and addressing the infrastructure needs for our future ageing population." NRMA, 2010, Transport and Mobility Needs of Ageing Australians: Discussion Paper, NRMA, Sydney

Mobility aids (particularly wheeled mobility devices) are common in the aged community but are also important for anyone living with a disability. Seamless footpath networks with well-connected kerb ramps are essential for people using wheeled mobility devices and can also assist those wheeling prams, shopping trolleys or making sack truck deliveries.

The footpath audit checklist helps identify if any infrastructure upgrades are required prior to implementing a route, and included 'essential' elements, such as; A Continuous Accessible Path of Travel, safe road crossings, free of tripping hazards; and 'desirable' elements, such as regular seating and wide footpaths. The essential items must be completed prior to the route implementation, and the desirable items can be planned for future installation or as budget permits.

Some sections of the Audit must be carried out by a Traffic Practitioner (Council or other), but others can be identified by volunteers who have been trained.

5 Engagement with the profession/and or Community

Community engagement was central to the development of the *Age Friendly Wayfinding Strategy* to ensure that our planning and design process was satisfied the needs of the end-user.

We developed a pilot project methodology, with view that it could be undertaken by local volunteers to test new routes with various community groups in the future. The pilot project methodology was translated into a 'volunteer guide' handbook.

Members of the Kent Town Rotary Club volunteered to assist Council with ongoing community engagement on the pilot project, with view to facilitating additional Age-Friendly Walking Route test-runs in the future.

The InfraPlan, URPS and the City of Norwood Payneham & St Peters multi-disciplinary project team worked together closely to ensure all necessary knowledge sharing was achieved and well-communicated with the volunteer guides. We ran 'train the trainer' session to take volunteer guides through the entire process and demonstrate the purpose and desired outcome of the pilot project.

The pilot project intended to:

- Test the route audit checklist for user-friendliness (noting that Council Engineers would be required to assist with some of the more technical aspects);
- Determine key route characteristics;
- Assist with signage design template (including pictogram interpretation and colour contrast); and
- Assist with appropriate sign installation location (including visual clutter, sight distance and route refinement).

5.1 Pilot project summary

An age-friendly walking route between the Payneham Library and Linear Park (refer Figure 6) was identified as an appropriate pilot project to test the sign design and walking route with local residents.

This route was chosen because it had an ideal walking distance (720 metres or 12 minutes at 1.0 m/s), is in an area with the highest numbers of people aged 65 plus and includes age-friendly points of interest such as the library services and the facilities at the river (seating, toilets, pleasant environment). It is also

on a public bus route, near Eldercare residential living and a Council community bus stop is located at the library.

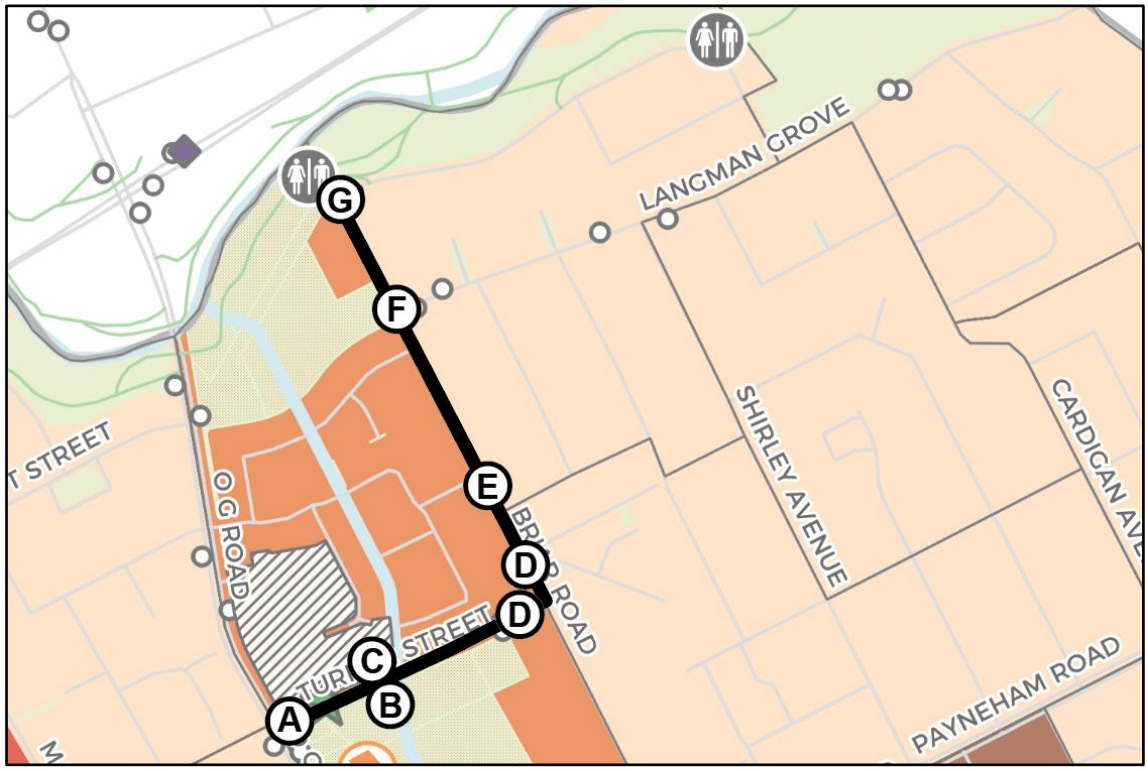


Figure 6: Pilot project route & sign location

Two sign colours were tested (Standard blue and Council green) to ascertain preference for future signs (See Figure 3 & Figure 4). The blue signs led participants from the Library to the River, and the green signs directed them from the River to the Library. The green signs also included the Council logo and information.

Twenty-five people participated in three focussed walking tours of the Pilot Project.

Photo 1: Photo Credit, Weekend Plus (Digital magazine for Seniors)

These focussed walking tours were designed to test effectiveness of sign design, sign placement and route characteristics.

Although the pilot route was chosen for these walking tours, the feedback was analysed in a way that drew out general principles that could be applied to any route and therefore used universally for future routes.

Key findings arising from community engagement include:

<u>Sign design</u>

- On the whole, participants were positive about the sign design, with a preference for standard blue. Signs were generally readable and effectively helped them find their destination. To an extent, signs also increased their interest in the destination.

- Participants made a number of suggestions to improve signage, including the inclusion of icons indicating key library services, avoiding stereotypes of older people, more signs along route, and a preference for the blue colour scheme.

Sign Placement

- Participants indicated that upright signage was preferred to any on- ground signage and that the signs on the route were a good height.
- There was some indication that signage could include other places of interest along the route and that signs, in this case, should be placed at the point of divergence from the route.
- There was some suggestion that signage be supported by other treatments, such as tactile markers at crossing.

Route

- There was a clear destination at either end of this route and the majority of participants found both directions offered an enjoyable walking experience.
- A feeling of safety was dependent on the direction participants were travelling with fewer feeling completely safe on their way to linear park. A number of factors may contribute to this, including a corner crossing point with inadequate visibility, poor footpath condition and a slight incline.
- Participants were happy with the shade cover along the route but suggested more seating and better lighting.

Photo 2: Photos from train the trainer & pilot project sessions

6 Expected outcomes and benefits

The key objectives of this *Strategy* were realised, as identified in the feedback from the pilot project, which includes:

- Awareness and confidence in older people in connecting to destinations of interest; and
- The likelihood of older people walking to destinations due to improved wayfinding throughout the City.

This in turn will:

- Increase independence, social connectedness and health and wellbeing of older people in NPSP;
- Enable more people to use a variety of services provided within NPSP, and therefore participate in, and contribute to, the wider community; and
- Reduce reliance and expenditure on-demand transport such as taxi and ride-sharing, which in turn may reduce congestion.

When older people give up driving, research has found that private lifts, ride-share and taxis are the main forms of transport. A study undertaken by the RACV in inner and outer Melbourne of recently retired drivers found that 85% were relying on lifts from others and 82% were utilising taxi services.

This has the potential to contribute significantly to traffic congestion as the aging population grows and these services become more readily available. For example, ride-sharing services like Uber and Lyft are so popular in San Francisco that they have become the single biggest factor behind the city's increasingly snarled traffic. Researchers analysed millions of trips and concluded that these services accounted for more than half of the 62% increase in weekday traffic delays. Furthermore, the cost of relying on taxis and ride-sharing can be prohibitive for those on low incomes.

Enabling older people to confidently navigate the City through the implementation of age friendly wayfinding will increase the likelihood of this demographic choosing to walk as a form of transport, particularly for short trips.

7 Conclusion

InfraPlan, URPS and the City of Norwood Payneham & St Peters would like to thank AITPM for the opportunity to submit this project for the AITPM Excellence Awards 2019 (Transport Planning Category).

We believe this project demonstrates practices which will drive improvements in the industry that will ultimately benefit the wider community, especially for the planning and implementation of transport that considers people of all ages and abilities.

InfraPlan would like to thank all who provided valuable input into the preparation of the Plan, including URPS, Norwood Payneham & St Peters Council staff, Department of Health (SA) – Office for Ageing Well, the Kent Town Rotary Club and the community members who provided feedback from the pilot project.