

Taking the highway or the walkway? – How to make walking more competitive through integrated design - Two Tasmanian case studies

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ABSTRACT: Walking is the fundamental mode of transport. The benefits of walking for health and for the environment are well known. From a transport perspective walking can contribute to reducing traffic congestion, which is becoming increasingly problematic in Tasmanian cities. At the same time Hobart has one of the highest percentages of people walking to work in Australia. Compared to cycling facilities, pedestrian facilities are less considered in transport policies and guidelines. This paper will review current policies and guidelines and discuss two recent road upgrades in Tasmania in regards to pedestrian facilities.

KEYWORDS: road design, pedestrian facilities, connectivity, user experience, amenity.

1 Introduction

Despite being a small and less densely populated State, Tasmania is now catching up to mainland Australia in regards to traffic volumes and congestion issues. Accordingly, active transport has gained a higher profile in transport planning by all levels of government in Tasmania [1], [2], [3]. Recognising that in Hobart more people chose to walk than in other Australian capital cities [4] the Hobart City Council has undertaken major upgrades to walking facilities in the CBD [5]. The State Government has improved pedestrian facilities in recent road upgrades [6]. Nevertheless, new and retrofitted pedestrian facilities vary in quality and design and are often limited to safety aspects without considering other needs such as efficiency and user experience.

2 Walking infrastructure policies and guidelines

Pedestrian facilities can be defined as infrastructure which help pedestrians to move around safely, efficient and with ease. Pedestrians are defined as people who walk including people in wheelchairs, and people using mobility scooters or personal mobility devices [7].

2.1 Tasmania

The *Tasmanian Walking and Cycling for Active Transport Strategy* developed in 2010 by the Tasmanian State Government aims to “create

a more supportive and encouraging environment for pedestrians and cyclists” [8]. It makes reference of the Heart Foundation’s *Tasmanian Healthy by Design* guidelines [9]. The State Government has recently published the *Hobart Transport Vision*, which also highlights the importance of active transport [10]. While these documents help to strengthen the evidence of and the support for walking they make little mention of design and practical integration of pedestrian facilities for major roads and state highways.

2.2 Mainland Australia

Walking as a preferred mode of transport has been supported by all major road authorities in Australia. In Queensland, State and Local Governments have signed an agreement to work together on pedestrian facilities. The road manual contains a chapter on pedestrian and bicycles and a toolkit [11].

The Victorian Department of Transport in conjunction with *VicRoads* has developed an integrated network approach based on international examples such as the “Link and Place” strategy in the UK [12]. It includes some design examples. The improvement of pedestrian facilities is strongly supported by *Victoria Walks* who developed an audit tool [13].

The New South Wales, Western Australian and South Australian State Governments have gone to similar effort to improve policies and guidelines on walking [14], [15], [16].

Austrroads, the peak organisation of Australasian road transport and traffic agencies, is currently updating guidelines to reflect the latest knowledge on pedestrian facilities from across Australasia and internationally [17].

2.3 An international perspective

One of the strongest international initiative to promote better walking facilities especially in cities is Walk21. Launched in Melbourne in 2006 its Charter has been ratified by several Australian cities [18].

In the USA, NACTO* has produced a *Global Street Design Guide* with input from 42 countries. This guide has been endorsed by 50 cities around the world including Melbourne and Sydney [19].

The New Zealand Transport Agency has one of the most advanced policies and guidelines for pedestrian facilities and includes illustrated examples [20].

3 Two Tasmanian Case Studies

Below, two case studies of recently upgraded intersections are reviewed in relation to their design of pedestrian facilities.

3.1 The upgraded intersection at Huon Highway and Summerleas Road

The new intersection at Huon Highway and Summerleas road provides a typical example of a multimodal intersection. This intersection was upgraded to address the high number of serious crashes. The main change was a grade separation of the roads. This also made it possible to include pedestrian facilities on the road crossing under the highway. The road connects residential areas on both sides of the highway. The outcome is a major improvement for pedestrian connectivity and safety. From a pedestrian point of view the experience could be improved by additional safe crossings, connections with the bus route (relocated to the closest underpass), adding amenities such as wayfinding maps and plantings as well as separating pedestrian and cyclist traffic.



Figure 2: The grade-separated intersection at Summerleas Road (before and after)^{1,2}

3.2 New bus stops at Stony Rise Road

The Devonport City Council has recently developed a *Pedestrian Strategy*. [21] In response new pedestrian pathways were added to the roundabout at the intersection of Stony Rise Road and Tugrah Road to improve linkages with residential areas in South Devonport. Subsequently, State Growth is reviewing the bus network and considering two new bus stops near the roundabout.

The new bus stops will be DDA** compliant and new connecting paths including a crossing will be added to the eastern side of the roundabout. As the road has also been identified as a key cycling route in Devonport's *Bike Riding Strategy* cycling facilities also need to be considered [22].

While pedestrian facilities have been greatly expanded at the roundabout, this case study shows the complexity of design challenges when trying to retrofit pedestrian facilities to existing road infrastructure. Safety and efficiency could be further improved but would require some changes to the current roundabout design. Amenity could be enhanced by landscaping to not only make the walk to the bus stop safe but also more pleasant. A well-thought-out design which includes the pedestrian perspective could attract more pedestrian users in the future.



Figure 3: The new bus stop locations and walkways at Stony Rise Road³

4 Conclusions and recommendations

The case studies show that there have been efforts by the State Government to provide more and improved pedestrian facilities. While safety was a major aspect in the design, aspects such as walking network connectivity, experience and comfort need further exploration. An integrated and systematic approach to designing pedestrian facilities at all new and upgraded roads would ensure that the choice to walk comes naturally anywhere in Tasmania.

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Notes

- * National Association of City Transportation Officials
- ** Disability Discrimination Act 1995

Bio

Birgit Kruse has more than 10-years-experience in the roads and transport sector and works for the Department of State Growth in Hobart. She is on the AUSTROADS committee for the review of pedestrian planning and design guidelines.

Birgit holds a Bachelor in Geography (FU-Berlin), a Masters degree in Spatial Sciences (UTAS, Hobart), a Masters degree in Urban Design (QUT, Brisbane) and has recently completed the IPWEA Certificate in Asset Management Planning. She has a strong interest in bringing together transport infrastructure planning and urban design. She has worked in planning in Europe, the USA and in Australia for various small and large organisations.