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Comments on the ACT Strategic Walk and Cycle Network plan

ACT Strategic Cycle Network Project
GPO Box 158
Canberra City, ACT 2601

Recommendations

Living Streets Canberra recommends that:

1. the Government consult with the walking public on its plans to develop the walking network.
2. consultation offer options that are more meaningful than whether network development should or should not be City-centric or Town-Centre-centric.
3. the Government provide information about the likely impacts of each proposed network option on the Government's targets and goals for sustainable transport, greenhouse emissions and physical activity.
4. the Government prioritise projects according to how cost-effectively they will contribute to its targets and goals for sustainable transport, greenhouse emissions and physical activity.
5. appropriate emphases be placed on the needs of (a) the pedestrians who are the main users of the network, and (b) the more than 40% of cyclists who are children.
6. the Plan consider all classes of walking and cycling infrastructure.
7. the Plan focus on trip distances of less than 7.5 km.
8. the Plan prioritise twenty highly cost-effective trunk walking and cycling projects.

The rationale behind each of these recommendations follows

With my best regards

Leon Arundell
Chair
19 December 2012

1. the Government consult with the walking public on its plans to develop the walking network.

Three in four users of Canberra's network of cycle lanes and shared paths are walkers.

The Government has failed to involve the walking public in its plans for the walking and cycling network, because it has promoted the exercise as the “Strategic **Cycle** Network Plan” rather than the “Strategic **Walking and Cycling** Network Plan.”

The Government invited consultation on cycling (but not walking) aspects of the network in the Community Noticeboard of 24 October, and via subsequent emails to interested parties.

Communication consultants, [Talkforce Media](#), confirmed their understanding that “*The overarching goal of this consultation is to develop a cycle network.*”

The word “walk” appears only five times in the 62 page draft report, which is entitled, “*ACT Strategic Cycle Network Plan Preliminary Options Report.*”

The consultation is supported by a short on-line survey that has no questions on walking, and focuses on the needs of the cycle commuting minority rather than on the needs of other cyclists including the 44% of Canberra cyclists who are aged under eighteen.

All of the above are **contrary to**:

- **Simon Corbell's assurance** of 1 August 2012 that the exercise “*is looking at improvements to both **pedestrians** and cyclists ... further consultations ... will provide opportunities to identify and plan for the needs of **pedestrians** as well as cyclists,*”
- the **Labor Party's election promise** of “*an ongoing program to upgrade shared paths and on-road cycling facilities to ensure that the network is available to **both pedestrians and cyclists,***” and the
- **Parliamentary Agreement** to “*provide \$15 million above current Budget funding for improved **walking** and cycling infrastructure.*”

2. consultation offer options that are more meaningful than whether network development should or should not be City-centric or Town-Centre-centric

The primary measure of the benefits of a walking/cycling project is the number of walking, cycling and bus trips that it generates.

The number of walking, cycling and bus trips that a project generates will depend not only on where it fits in the network, but also on how many people live, work, shop, study or take recreation within walking or cycling distance of the project.

100% of walking trips – and 92% of cycling trips – are less than 7.5 km (See under recommendation 8). It is conceivable that only a minority of cycling or walking trips involve Civic or the Town Centres.

3. the Government provide information about the likely impacts of each proposed network option on the Government's targets and goals for sustainable transport, greenhouse emissions, obesity and physical activity.

The extent and quality of the walking and cycling network will be critical to the achievement of the Government's targets for sustainable transport and greenhouse emissions, and to its goals for obesity and physical activity.

Journey to Work figures from the 2011 Census show that the ACT achieved only a tenth of its target of a 2.5% increase in cycling to work, and failed to achieve any of its targeted 1% increase in walking to work or 2% increase in taking public transport to work. Future increases in cycling to work are at risk because of the long-term decline in numbers of child cyclists, who are our potential future commuters¹.

If we are to recover those missed opportunities, we will need a more effective approach to walking and cycling infrastructure planning.

Although *journey to work* is the primary indicator for sustainable transport, journeys to work account for up only about one in five of all trips.

Based on analysis of ABS *Census At School* and population data, we estimate that the number of children who use the walking and cycling network to commute to school is comparable to the number of adults who use it to commute to work. For details, see under Recommendation 5 below.

Another significant component of transport is non-commuting trips, both work-related and non-work-related. Many of these trips can be done on foot or by bicycle, if the infrastructure is suitable.

Walking and cycling are forms of physical activity whose contribution to obesity reduction and to general health are well documented in the scientific literature.

4. the Government prioritise projects according to how cost-effectively they will contribute to its targets and goals for sustainable transport, greenhouse emissions and physical activity.

The 2005, 2007 and 2011 trunk walking and cycling infrastructure reviews all showed that superficially similar projects could not only have very different costs, but also very different levels of benefit.

The benefits of a proposed project depend not only on whether it is part of a City, Town Centre or suburban network, but also on factors such as how many residents, educational institutions, shops, recreation reserves and employment centres it serves. Information on these factors is readily available, and was used in the 2005, 2007 and 2011 trunk walking and cycling infrastructure reviews.

1 <http://grapevine.net.au/~mclluskeyarundell/CyclingDecline.html>

5. appropriate emphases be placed on the needs of (a) the pedestrians who are the main users of the network, and (b) the more than 40% of cyclists who are children.

(a) the pedestrians who are the main users of the network

The overwhelming majority of trips on the walking and cycling network are walking trips, as the following table shows.

	Walk to and from bus stops	Walk all the way	Total trips involving walking	Cycle
Children travelling to school (est. ²)	12,500	8,500	21,000	4,000
Adults travelling to work (2011 census)	11,274	8,271	19,545	4,662
Trips into or out of Town Centres ³			29,000	8,000

Table 1: Daily use of Canberra's walking and cycling network

(b) the more than 40% of cyclists who are children.

The above table also shows that there are as many children who use the network to go to school as there are adults who use it to get to work.

Facilities such as on-road cycle lanes are poorly suited to the 44% of Canberra's cyclists who are aged under eighteen, and completely unsuitable for the 26% who are aged under ten (see table below).

Age group	% of age group who cycle in a given fortnight (<i>Australian Cycling Participation 2011</i>)	Population in age group (ABS)	Estimated number of cyclists in age group	Cyclists in age group as % of all cyclists
0-9	45.8%	45,535	20,855	26%
10-17	42.5%	34,512	14,668	18%
18-39	18.7%	134,225	25,100	31%
40+	12.8%	153,480	19,645	24%

Table 2: Cycling by Age, ACT

2 Estimates of numbers of children travelling to school are based on data from the 2012 ABS Census At School, according to which 22.4% of ACT school children travel to school by bus, 15.2% walk and 7.2% cycle. ABS population data show that in June 2011 the ACT had 55,969 people aged five to seventeen. The numerical estimates are based on an estimated school population of 55,969.

3 Trips into or out of Town Centres are estimated from graphs from March 2012 counts, published in the *Canberra Cyclist*. They relate to three two-hour periods: 7am-9am, noon to 2pm and 4pm to 6pm.

[Kidsafe ACT](#) fact sheets advise that:

- “Children should not travel in a bike seat or trailer before they are 12 months of age.”
- “A footpath or shared path is always the best place for children to cycle.”
- “Children under 10 years of age need to be supervised at all times near traffic.”

6. the Plan consider all classes of walking and cycling infrastructure.

Classes of walking and cycling infrastructure include:

1. Segregated footpaths.
2. Footpaths shared by pedestrians, cyclists aged under 12, and adults accompanying cyclists aged under 12.
3. Shared paths for pedestrians and cyclists of all ages.
4. Unobstructed nature strips on streets without footpaths (approximately one in four Canberra streets).
5. Segregated cycle paths.
6. On-road cycle lanes.
7. Shared spaces (e.g. a street with a 10 km/h speed limit, where vehicles must give way to pedestrians).
8. Low speed zones (e.g. a street with a 20 km/h or 30 km/h speed limit, where normal road rules apply).
9. Roadways, including on many of the one in four Canberra streets that have no footpaths, and whose nature strips are unobstructed by landscaping and/or parked cars.
10. Road shoulders and breakdown lanes.

For pictorial examples of classes 2, 4 and 9, see

<http://grapevine.net.au/~mccluskeyarundell/LSDexterStCook.html>

7. the Plan focus on trip distances of less than 7.5 km.

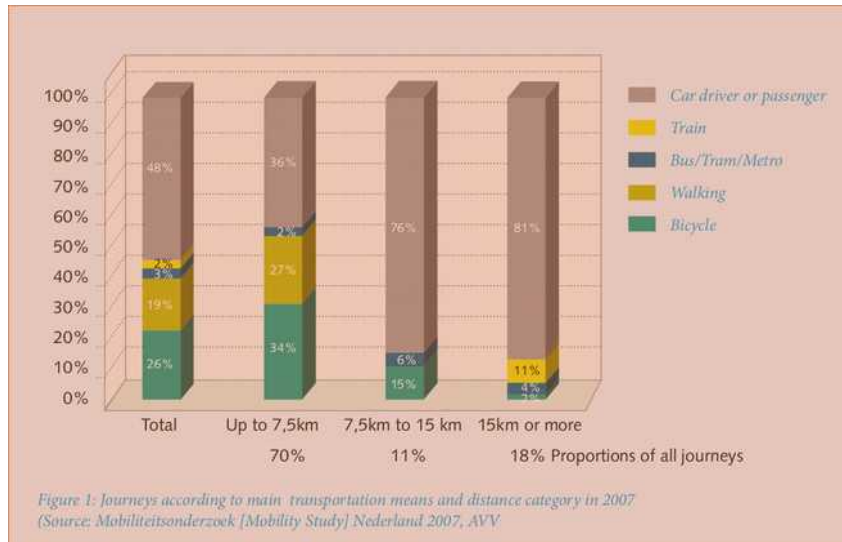


Illustration 1: Trip mode shares by trip distance (Source: Cycling in the Netherlands 2009).

Very few walking trips are longer than 7.5 km.

In the Netherlands, cycling accounts for 34% of journeys under 7.5 km, 15% of journeys between 7.5 and 15 km, and 2% of journeys over 15 km. These distances account for 70%, 11% and 18% of all trips respectively (Illustration 1, above).

These numbers imply that 92% of cycling trips are under 7.5 km, 6% are between 7.5 and 15 km, and 1% are over 15 km.

Trunk routes are attractive to car drivers because the time taken to detour to and from those routes is more than compensated for by the higher speeds and fewer stops that are permitted on those routes.

Trunk routes offer little benefit to cyclists and pedestrians, for two reasons:

1. The time required to detour to a trunk route is proportionally higher for a short trip; and
2. Practically-achievable walking and cycling speeds are no higher on trunk walking and cycling routes than on non-trunk routes.

8. the Plan prioritise twenty highly cost-effective trunk walking and cycling projects.

The amount of money available for walking and cycling projects is limited. It is important to spend those limited funds on projects that will give the best returns.

The value of a walking/cycling project depends only to a small extent on whether or not it services a Town Centre.

The primary determinant of the value of a cycling or walking project is the number of walking, cycling and bus trips that it generates.

The most valuable trips are the new walking, cycling and bus trips that the project makes possible for children and adults who don't have the option of driving. These trips offer major mobility benefits, in addition to their psychological and physical health benefits.

The next most valuable trips are those that would otherwise be undertaken by car. These trips also offer psychological and physical benefits, and have lower infrastructure and direct transport costs than equivalent car trips. They also cause lower social costs in the form of greenhouse emissions, air pollution and traffic congestion.

Living Streets has re-prioritised the top 199 of the 201 projects addressed in the 2011 Walking and Cycling Infrastructure Review, using a method that corrects for major methodological problems and major data and calculation errors that affected the priority rankings in that review.

Based on the initial costings in the review report, the total estimated cost of these twenty projects was \$660,000. Several projects were subsequently investigated in more detail as part of the Review. Their re-estimated costs were typically three times their initial cost estimates. On that basis, the twenty most cost-effective projects could be expected to cost around \$2 million.

Rank	Project name	Effectiveness score	Adjusted cost estimate*	\$,000 per unit effectiveness
1	Thesiger Court Link - off road path	0.52	\$30,000	58
2	Widen footpath on Wentworth Avenue - off road link	0.53	\$45,000	85
3	Knox Street to Simpson Street - off-road path sealing**	0.55	\$75,000	135
4	University avenue - off road path	0.30	\$45,000	148
5	Giralang Link – sealed off road path from William Slim Dr/Baldwin Dr to Ginninderra Creek footbridge.	0.49	\$90,000	184
6	Fisher off-road path	0.49	\$90,000	185
7	Menindee Drive off-road path	0.53	\$105,000	197
8	The Valley Avenue to Gundaroo Drive link - on road lanes	0.24	\$60,000	247
9	Accessible Street - Gungahlin**	0.30	\$75,000	252
10	Mawson Shops bypass route - off road path	0.53	\$135,000	254
11	Lake to War Memorial Links - off road path	0.54	\$150,000	277
12	Easty Street link - off road path	0.26	\$75,000	287
13	Athllon Drive off-road path missing link	0.52	\$150,000	289
14	Aikman Drive cycle lanes extension - on road lanes	0.24	\$75,000	307
15	Edinburgh Ave - on road lanes	0.27	\$90,000	328
16	Launceston Street - on road	0.31	\$105,000	334
17	Tuggeranong Bus Interchange access	0.23	\$90,000	384
18	Ginninderra Drive off-road path, UoC to Lake Ginninderra	0.49	\$195,000	400
19	Weston to Tuggeranong - off road path	0.55	\$225,000	410
20	Improvement of off-road path crossing at Miller Street between Macarthur and Quandong Streets	0.17	\$75,000	434

Table 3: The twenty projects that we found to be most cost-effective.

* The Adjusted Cost Estimate is the Initial Cost Estimate, multiplied by three.

** Projects that have subsequently been completed, or which are currently being further developed or investigated.

The above projects all cost less than \$500,000 per unit effectiveness. They are all more cost-effective than any of the high-profile projects such as those listed below in Table 4.

Project name	Effectiveness score	Current cost estimate	\$,000 per unit effectiveness
Majura Parkway off-road (11 km)	#	\$12m	#
Kings Avenue off road path	0.20	\$0.37m	1,884
Brisbane Avenue cycle lanes	0.17	\$1m	6,054
Civic Cycle Loop off-road - Copenhagen lanes along Marcus Clarke, Rudd, Allara streets	0.72	\$6m	8,377

Table 4: Cost-effectiveness of selected walking and cycling projects

A 1 km section of the Majura Parkway off-road route, linking to the Majura Business Park, was initially costed at \$379,469 and gained an effectiveness score of 0.17. At the current estimated cost of \$1.1 million per kilometre, its cost per unit effectiveness would be \$6.4 million.