MONASH University

Do 'travel plans' support liveability at new residential developments?

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GROUP OF EIGHT AUSTRALIA

PTRG PUBLIC TRANSPORT RESEARCH GROUP

MONASH INSTITUTE OF TRANSPORT STUDIES

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Outline

1. What is liveability?

2. What is a travel plan?

3. How effective are travel plans?

4. Do travel plans support liveability?

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Definitions of 'liveability' highlight a number of key dimensions

'Liveability reflects the **wellbeing** of a community and comprises the **many characteristics** that make a location a place where people want to live now and in the future'

VCEC (2008) *A state of liveability: An enquiry into enhancing Victoria's liveability*, Victorian Competition and Efficiency Commission, Melbourne

'…a liveable place [is] one that is safe, attractive, socially cohesive and inclusive, and environmentally sustainable; with affordable and diverse housing linked to employment, education, public open space, local shops, health and community services, and leisure and cultural opportunities; **via convenient public transport, walking and cycling infrastructure**'

Lowe et. al (2013) *Liveable, healthy, sustainable: What are the indicators for Melbourne neighbourhoods?* University of Melbourne

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A plethora of transport related indicators exist for assessing 'liveability'

Mode		Transport indicators for assessing liveability
Walking		▪ % of population that walks ▪ Street connectivity ▪ Pavement quality ▪ Positioning of pedestrian crossings
Cycling		▪ % of population that cycles ▪ Bicycle racks/parking ▪ Bicycle network connectivity
Public transport		▪ Accessibility to public transport (400/800m catchments) ▪ Stroller/pram accessibility on public transport ▪ Affordability of public transport ▪ Average public transport operating speed ▪ Public transport operating hours
Car		▪ Perception of parking ▪ Car dependency ▪ Household car ownership ▪ Motor vehicle mileage per capita ▪ Average traffic speed
Freight		▪ Speed of freight transport ▪ Affordability of freight transport
General		▪ Average commute time ▪ Road traffic injuries and fatalities ▪ Traffic noise

Source: adapted from Lowe et. al (2013) *Liveable, healthy, sustainable: What are the indicators for Melbourne neighbourhoods?*

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What is a travel plan?

- Strategy containing measures to manage car use & encourage use of more sustainable forms of transport

- Typically developed for individual sites such as workplaces or schools

- No two travel plans are the same – always tailored to needs of the site

- Can be required for **new developments** as part of planning approval

Slide 1

- 24 apartments
- Café and shop
- 3 artist studios
- Train within 100m
- Tram within 200m
- Off-road bike path

What measures are included in the travel plan?

- No car parking
- Car sharing service & membership for residents
- Annual public transport ticket for each resident
- Local transport information pack for residents
- 82 bicycle spaces (>3 per apartment)

Slide 2

ACTIONS
A COMBINATION OF DESIGN SOLUTIONS AND BUILDING MANAGEMENT INITIATIVES WILL SUPPORT SUSTAINABLE TRANSPORT AT NIGHTINGALE.

DESIGN SOLUTION
-57 SECURE BICYCLE PARKS, (2 PER 1 BEDROOM APARTMENT, 3 PER 2 BEDROOM APARTMENT, 9 FOR BOTH OFFICE/RETAIL SPACES).
-ZERO ON-SITE CAR PARKING.
-'END OF TRIP' SHOWER AND BATHROOMS FOR STAFF AND STUDIOS.
-14 ON STREET BICYCLE PARKS*.

BUILDING MANAGEMENT INITIATIVES
THROUGH THE OBSERVED EXPERIENCE OF THE COMMONS IT HAS BEEN REINFORCED THAT SUSTAINABLE TRANSPORT PROVISIONS MUST BE EQUITABLE. SOME RESIDENTS DON'T HAVE A DRIVER'S LICENSE AND SO MAY NOT DERIVE BENEFIT FROM A GOGET MEMBERSHIP. OTHERS MAY CYCLE OR WALK SO MUCH THAT THEY CAN'T DERIVE ADEQUATE USAGE FROM AN ANNUAL MYKI CARD. AS A RESULT, THE OWNERS CORPORATION FEES WILL INCLUDE AN ANNUAL 'SUSTAINABLE TRANSPORT' LEVY OF $500 PER BEDROOM THAT IS RESTRICTED FOR USE ACROSS THREE KEY AREAS:

-GOGET CAR SHARE MEMBERSHIP: GOGET WILL PROVIDE AN INDUCTION TO ALL PURCHASERS TO EDUCATE THEM IN THE USE OF CAR SHARE VEHICLES   AND ENSURE HIGH UPTAKE IS ACHIEVED FOR TRIPS THAT DO REQUIRE A CAR. RESIDENTS CAN CHOOSE TO ALLOCATE PART OR ALL OF THE 'SUSTAINABLE TRANSPORT' LEVY TO THIS MEMBERSHIP
-MYKI CARD: OWNERS CAN CHOOSE TO USE PART OR ALL OF THE 'SUSTAINABLE TRANSPORT' LEVY ON THEIR MYKI CARD.
-BICYCLE EQUIPMENT, REPAIRS AND SERVICING: OWNERS CAN CHOOSE TO ALLOCATE PART OR ALL OF THE 'SUSTAINABLE TRANSPORT' LEVY TO CYCLING EQUIPMENT, REPAIRS, SERVICING AND A BICYCLE NETWORK VICTORIA INSURANCE PLAN TO SUPPORT THIS MODE OF SUSTAINABLE

Issues exist with requiring travel plans for new residential developments

| Development	Implementation	Monitoring
▪ Travel plan only prepared to seek planning **approval**	▪ Lack of implementation and **follow-up**	▪ Lack of monitoring leading to **insufficient evidence**
▪ Lack of **guidance** specific to new developments	▪ Lack of suitable **handover** arrangements	▪ Lack of **resources** within local government to undertake enforcement
▪ Varying **quality** of travel plans being submitted	▪ Implementers have different **objectives**	▪ Uncertainty in the use of **legal mechanisms** for effective enforcement
▪ Travel plan considered **too late** in the process	▪ Uncertainty over **roles** and **responsibilities**	▪ Uncertainty over **roles** and **responsibilities**
▪ Nature of development sometimes **unknown**	▪ Lack of **ownership** of the travel plan	

Source: adapted from De Gruyter et. al (2017) Travel plans for new developments: A global review, *Transport Reviews*.

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Research method involved a case-control design

- **Count of people** (by transport mode) entering & leaving:
  - Case sites: developments with travel plans
  - Control sites: developments without travel plans

- **Count of car & bike parking** utilisation at each case and control site

- **Travel survey** of residents at all case and control sites:
  - Travel frequency by mode and trip purpose
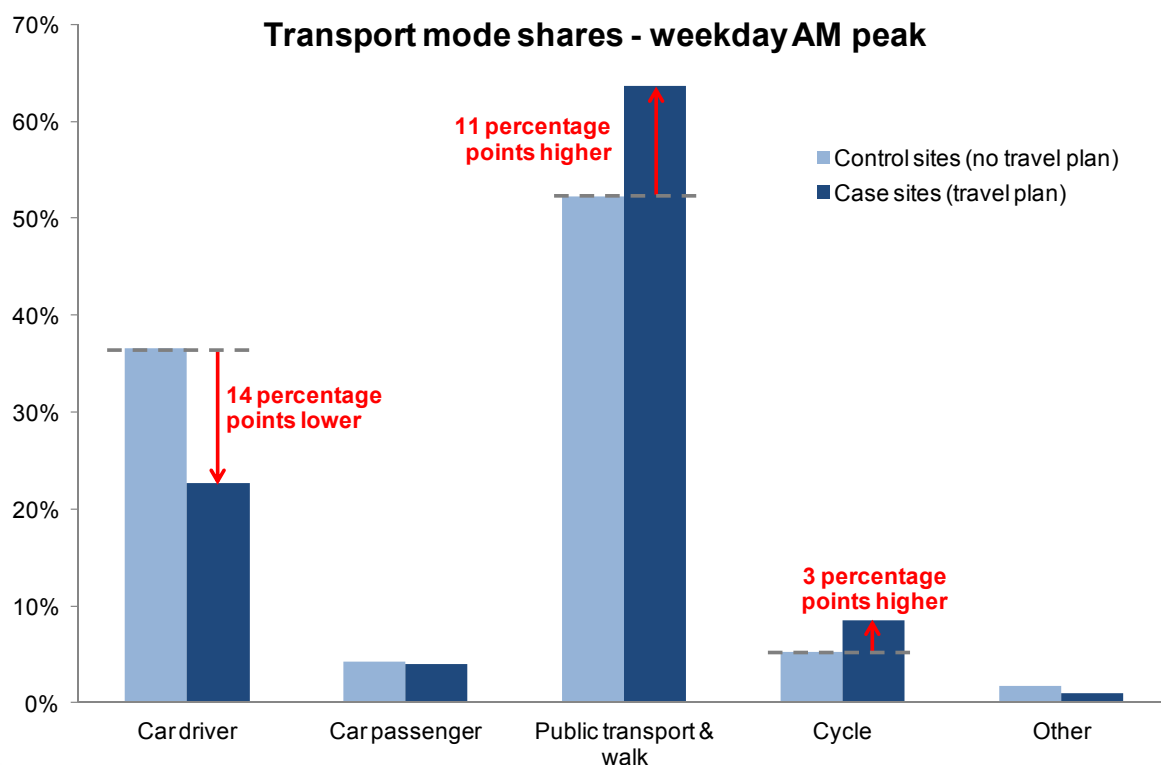 - Attitudes, preferences and demographics

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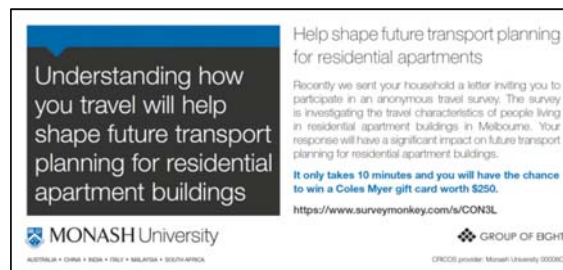
Four case sites were selected, each with a matching control site

Case sites – travel plan (generally located within 5 km of Melbourne's CBD)

Control sites – no travel plan (within 200 metres of corresponding case sites)

Case sites had lower car use + greater walking, cycling & public transport use

Transport mode shares - weekday AM peak

- Control sites (no travel plan)
- Case sites (travel plan)

14 percentage points lower (Car driver)
11 percentage points higher (Public transport & walk)
3 percentage points higher (Cycle)

Categories: Car driver, Car passenger, Public transport & walk, Cycle, Other

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Case sites had less cars & more bicycles + more efficient parking utilisation

	Average cars parked/dwelling	Average bikes parked/dwelling
Control sites	0.55	0.43
Case sites	0.42	0.73

- Less cars & more bikes per dwelling at case sites

	% car parking spaces used	% bike parking spaces used
Control sites	52%	98%
Case sites	68%	102%

- More efficient utilisation of parking facilities at case sites
- Over supply of car parking and under supply of bike parking

Resident travel survey provided additional qualitative insight…

"I am more than happy to go without a vehicle in exchange for fairly priced **public transport** options. I utilise **Go Get** extensively and have no desire to ever own a vehicle again."

"Very well connected with **public transport and bike lanes**. On street **car parking** is very hard with a large amount of construction happening in the area."

"…**parking outside the building** is problematic, as my elderly parents and other members of the family cannot really visit during the week due to the parking fee outside the building."

Cycling infrastructure is pretty good, which encourages me to cycle."

"We have so many **public transport options** in close proximity in our neighbourhood. I wish more developments would be brave enough to **car free**, and I wish the council would be more proactive to make it a planning requirement."

…with residents even highlighting 'liveability' aspects

"Moving here has been life changing. I sold my car with glee - keen for the savings and the lifestyle change. It has forced me to rethink how I spend time and where I spend money. I no longer do huge (expensive) shops - we do small shops for fresh food and groceries through the week. The desire to endlessly consume is also kept in check. The focus is now much more on home and a slower pace. Even for my son - walking or riding to school with him has changed the way we interact - significantly improving the quality of our time together - with a lot less rushing - which is good for everyone I believe."

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Which 'liveability' indicators can we assess the case sites against?

Mode		Transport indicators for assessing liveability
Walking		• % of population that walks • Street connectivity • Pavement quality • Positioning of pedestrian crossings
Cycling		• % of population that cycles • Bicycle racks/parking • Bicycle network connectivity
Public transport		• Accessibility to public transport (400/800m catchments) • Stroller/pram accessibility on public transport • Affordability of public transport • Average public transport operating speed • Public transport operating hours
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Source: adapted from Lowe et. al (2013) *Liveable, healthy, sustainable: What are the indicators for Melbourne neighbourhoods?*

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> However, travel plans could influence most, if not all, of these indicators if the relevant measures are implemented

Source: adapted from Lowe et. al (2013) *Liveable, healthy, sustainable: What are the indicators for Melbourne neighbourhoods?*

An assessment indicates that travel plans generally support 'liveability'

Mode		Indicators		Assessment against indicators
Walking	🚶	% of population that walks	✓✓	Walking + public transport trips were 11 percentage points higher at case sites
Cycling	🚴	% of population that cycles	✓✓	Cycling trips were 3 percentage points higher at case sites
		Bicycle racks/parking	✓✓	Higher bicycle parking demand at case sites
Public transport	🚌	Affordability of public transport	✓	Free public transport tickets offered as part of a travel plan can improve affordability, but only for the duration of the ticket
Car	🚗	Perception of parking	?	While on-site car parking demand is lower at case sites, on-street car parking remains a key issue
		Car dependency	✓	Car driver trips were 14 percentage points lower at case sites, although there was little difference in car passenger trips
		Household car ownership	✓✓	Lower on-site car parking demand at case sites; resident travel survey also revealed lower car ownership at case sites

Take home messages

1. What is liveability?

The wellbeing of a community and the many characteristics that make a location a place where people want to live now and in the future

2. What is a travel plan?

Strategy containing measures to manage car use & encourage use of more sustainable forms of transport; delivered at a local site-based level

3. How effective are travel plans? [at new residential developments]

14% less car use when compared to similar (control) sites, less demand for car parking and more demand for bicycle parking

4. Do travel plans support liveability? [at new residential developments]

Generally yes, and while perceptions of on-street car parking remain an issue, demand for on-site car parking was found to be lower at sites with travel plans

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