

Obstacles on footpaths in the CBD Problem statement & survey design

City of Melbourne

4 December, 2018

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PROBLEM STATEMENT

People can be observed overflowing the footpaths in the CBD

In some parts of the CBD, at some times of day, people are walking on the road



especially near railway station exits.



Video
Flagstaff Station
William Street south of
LaTrobe Street
23 October 2018
0853



Video
Parliament Station
Spring Street north of
Collins Street
8 November 2018
0825

This means the footpaths will have to be made wider

- People walking on the road is significant problem.
 - The immediate risks include road trauma
 - The longer term risks include constraints on the City economy, liveability and equity
- Overflow in some locations suggests that other sites are congested – just not to the level that means people walk on the road.
 - Congested footpaths bring other risks such as compromising access for people with wheels (DDA, small children) and time lost in delay
- These problem are likely to get worse as the number of people in the CBD increases.
- Responding to increasing population in a fixed space is a 'macro' problem that requires a strategic response.
- One obvious strategic response is to widen the footpaths to cope with the increased flow.
- Widening the footpaths in the CBD will be a costly, slow and incremental process.
 - Footpath widening projects will cost millions of dollars.
 - The designs will take time. Plans will require cross disciplinary consensus and public consultation will need to be extensive.
 - Although templates can be developed, effective and appropriate solutions will need to be tailored to each block or precinct.
 - Although the solutions will provide immediate local relief they will have no impact on other areas.

What can be done in the meantime with smaller amounts of money (and effort)?

- As the strategic response will be slow, a tactical response is needed in the short term.
- Effective tactical responses require a diagnosis.
- This project aimed to identify the immediate and local causes of footpath congestion
- This will enable the Council to design policies and interventions that maximise the effective capacity of the existing footpaths where flows are high

to remove (or reduce) obstacles on the footpaths

- Other cities are concerned about similar issues. In London the problem is discussed using the term 'clutter'
- This term combines concepts of:
 - Untidy, poorly organised, dis-orderly
 - Unwanted or unnecessary
 - Too many
 - Occupying space for little return
 - Redundant/obsolete
- The term 'clutter' is problematic:
 - It is a collective term (uncountable noun) which is hard to apply to a specific object. (This object is a clutter, this one is not).
 - The word contains competing meanings. (Objects could be 'tidied' to reduce clutter when 'removal' is more appropriate.)
 - The word is used in two domains 'visual clutter' and 'physical clutter'.
- Rather than refer to 'clutter' this investigation looked for 'obstacles'.
- Obstacle is:
 - A countable noun
 - 'An obstacle is an object that makes it difficult for you to go where you want to go, because it is in your way.'
- Nothing is intrinsically 'an obstacle' it depends on its location.
 - Redundant, unnecessary obstacles can be removed
 - Necessary items that are also obstacles can be consolidated, redesigned or relocated
 - Positive items can also be obstacles. 'This tree is an obstacle'.
- People can be obstacles for example when they are waiting for a bus

The nature of the problem is not well defined

- Formal responses to avoid or remove 'clutter' in London (and Australia) have tended to be restricted to moving or removing 'street furniture' such as pedestrian fences and seats.
- This definition is too narrow as people, temporary items and more permanent items also act as obstacles.



Public debate and Council responses have recently focused on items that are not 'street furniture' including:

- People queueing for iPhones (City of Sydney)
- Dockless bicycles
- NBN node cabinets (City of Sydney)

This makes it difficult to develop and implement policies & interventions



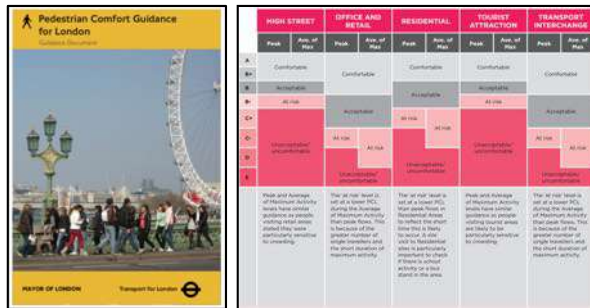
In January, Mr Keegan said the city council intended to address the issue of unlicensed street clutter. The Restaurants Association of Ireland at the time accused him of going on an "anti-tourism rampage".

Recommendations in the City Space Discussion Paper for the Transport Strategy Refresh include:

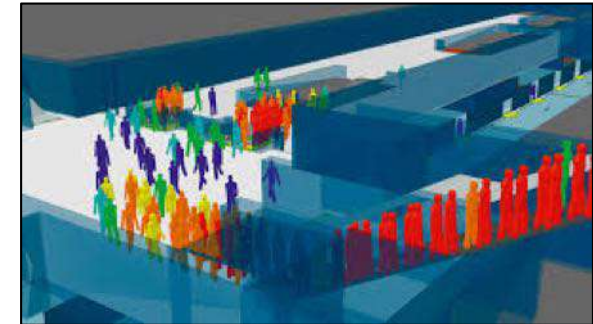
- Relocating all bicycle parking (privately-owned and shared services) and motorbike parking from the footpath
- Limiting:
 - The use of portable advertising boards
 - Busking
 - Counter style shop fronts to avoid queues
- Removing redundant items such as street furniture
- Rationalising signage and other objects
- Establishing controls based on:
 - Day of week
 - Time of day
 - Location
 - Number of pedestrians
 - Width of footpath

SURVEY DESIGN

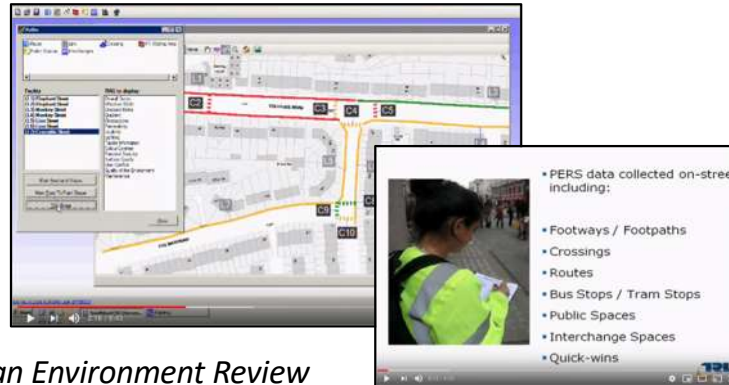
A method was needed to identify the problem & inform tactical decisions



Transport for London's Pedestrian Comfort Guide



ARUP used Oasys computer modelling in the design of AAMI Park to ensure 'optimal external circulation for patrons, improving safety and avoiding bottlenecks around the concourse and in surrounding streets'



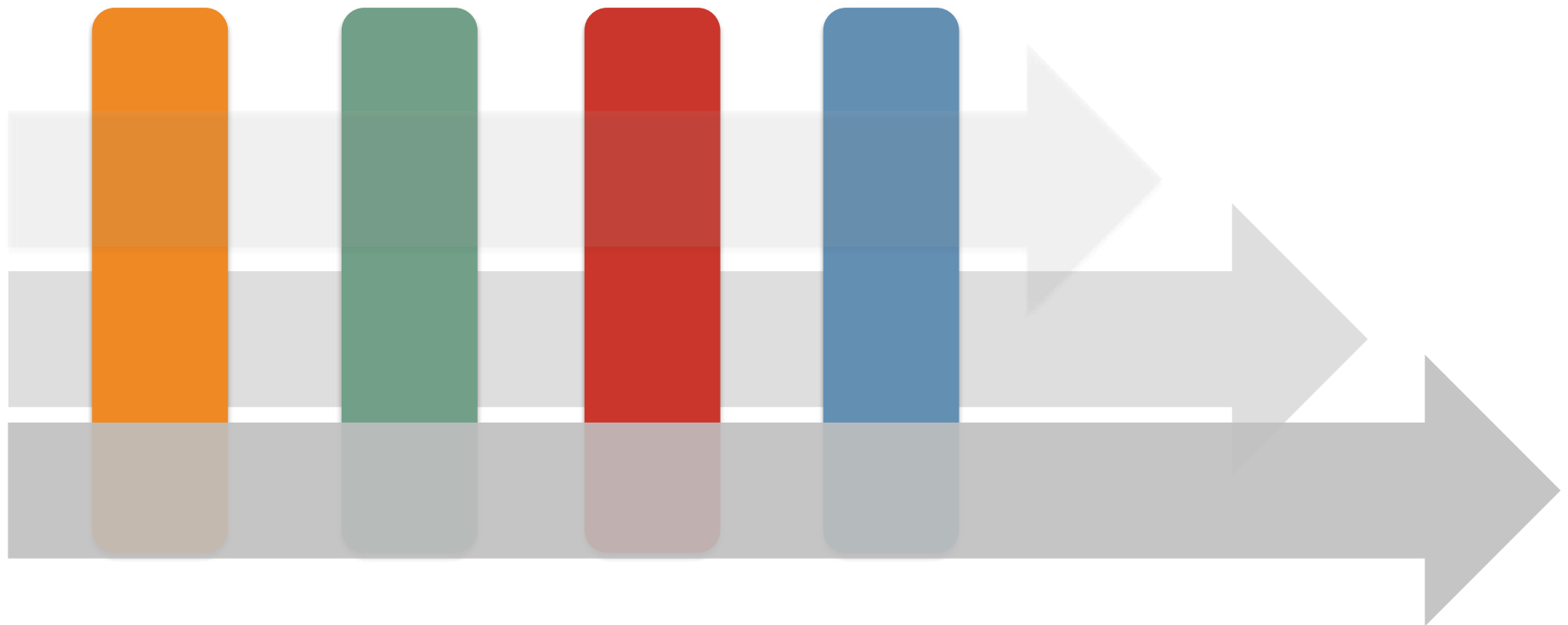
Transport for London's Pedestrian Environment Review

Transport for London's Pedestrian Comfort Guide (PCG) & Pedestrian Environment Review (PERS) were considered. Computer modelling is also possible.

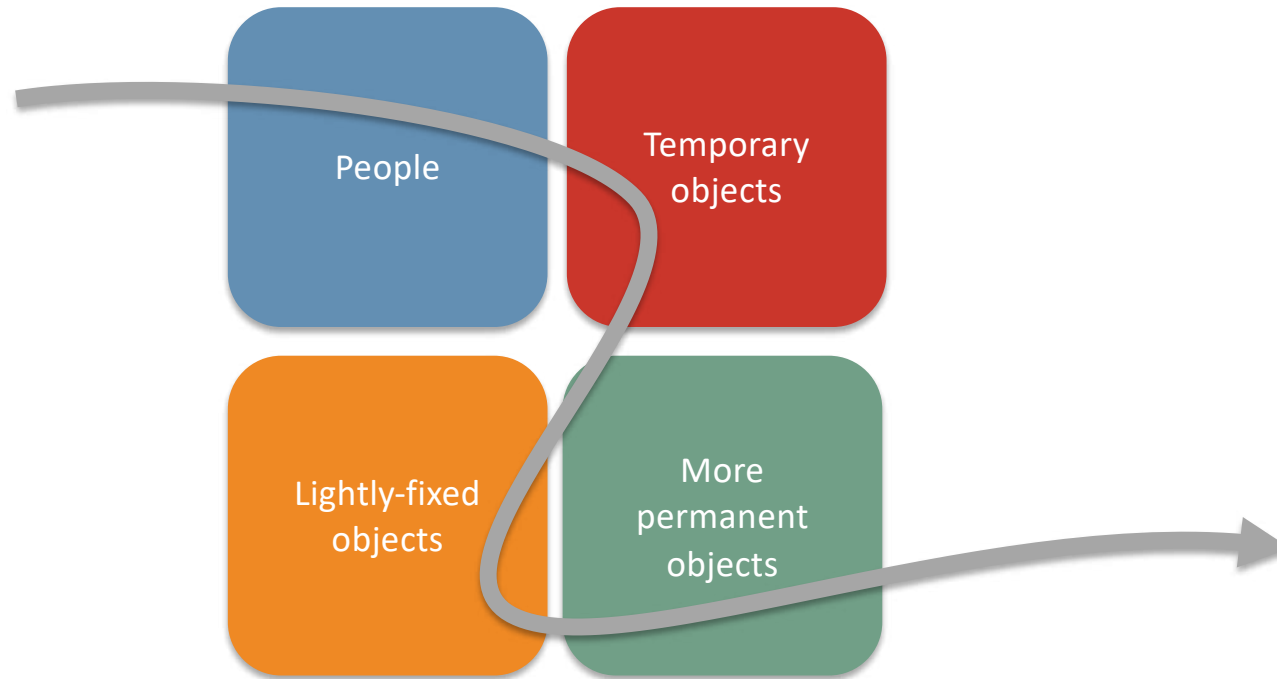
PBA developed a footpath obstacle survey based on three variables

	Aim	Method	Strengths	Weakness
Pedestrian Comfort Guidance TFL	'Identify priorities for action or attention, the cause of these issues and help to identify mitigation measures to make the site more comfortable.'	Measure: <ul style="list-style-type: none"> • People per minute • Width of path • By location for example 'Tourist Attraction' 	<ul style="list-style-type: none"> • Identifies constrained sites – pinch points • Quantifies flow and width 	<p>Criteria too narrow. Does not report:</p> <ul style="list-style-type: none"> • People • Temporary items including motorbikes • More permanent objects traffic signals <p>Provides no insight into the prevalence of categories of obstacles</p>
Pedestrian Environment Review TFL	'Generate quick-win work list'	Visual survey including: <ul style="list-style-type: none"> • Width • Dropped kerbs • Gradient • Permeability • Legibility • Lighting • Tactiles • Personal security • User conflict 	<ul style="list-style-type: none"> • Many criteria • Mapped on heat map and bar charts • Supports pedestrianisation and shared space schemes 	<p>Criteria too broad Requires proprietary software</p>
Footpath obstacle survey	Identify locations where flow is high. Identify the nature of the obstacles in the flow.	Visual survey: <ul style="list-style-type: none"> • Identify level of flow at peak times <ol style="list-style-type: none"> A. At intersections B. Along blocks • Identify obstacles <ol style="list-style-type: none"> 1. People 2. Temporary items 3. Lightly fixed objects 4. More permanent objects • Record location 	<ul style="list-style-type: none"> • Quick, low cost scan across much of Hoddle Grid • How much and where are the flows higher than the capacity • What is getting in people's way? • Mapped on heat map and bar charts 	<p>Does not report</p> <ul style="list-style-type: none"> • Width of path • Exact number of people • Location of the obstacle • Number of each type of obstacle

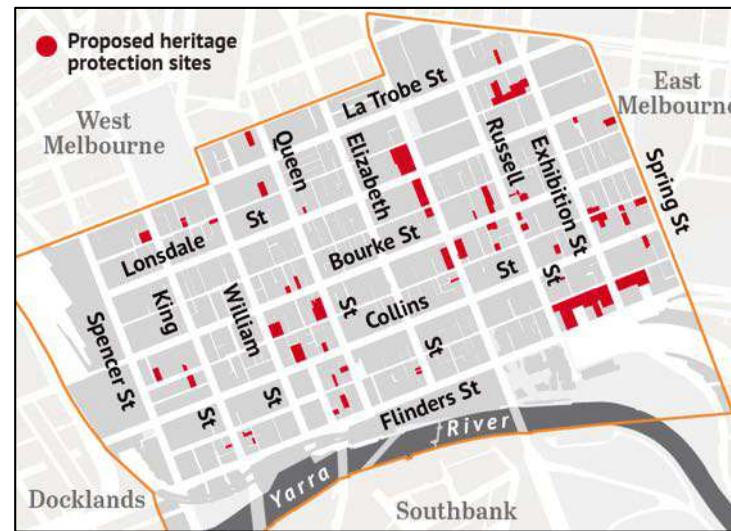
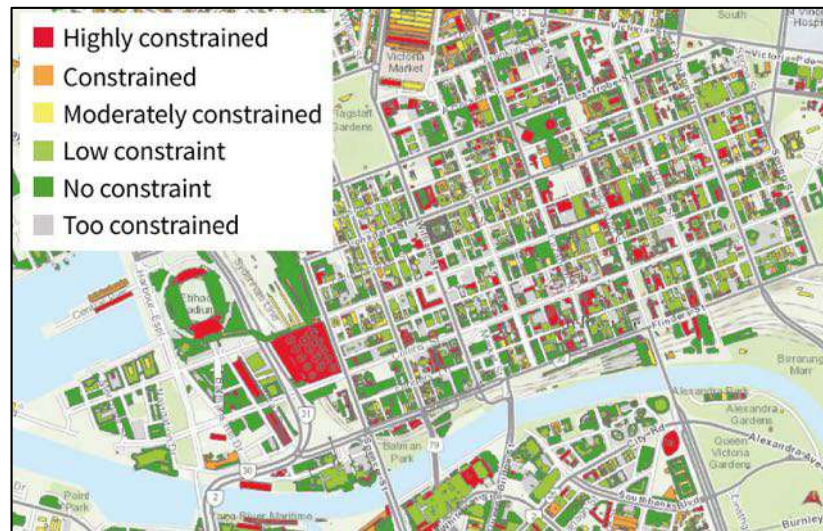
1 How strong are the flows along blocks and across intersections?



2 What obstacles are in the way?



3 Where are the problems of high flow and obstacles



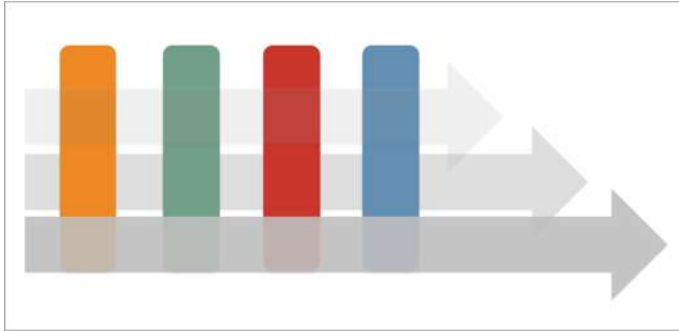
Definitions

- Definitions of flow were set for blocks and intersections
 - Flow along Blocks was rated:
 - 1 Comfortable walking
 - 2 Uncomfortable walking
 - 3 Walking on the kerbstone
 - 4 People walking on the road in one direction
 - 5 People walking on the road in both directions
 - Flow across intersections was assessed by:
 - Flow – people walking inside or outside the crossing area
 - Storage – whether people were waiting inside or around the poles on the footpath
 - Obstructions – the number of poles in the pedestrian ramps
 - Photographs of these definitions are provided below
- The categories of obstacles were defined based on observation and information from City of Melbourne staff. Four categories were used:
 - People. People getting in the way of other people
 - Temporary objects. Objects that are not attached to anything and that could be moved or picked up
 - Lightly-fixed objects. Objects fixed to the ground or other objects that could be removed with tools.
 - Major fixed objects. Objects that were strongly connected by cables, wires or roots.
 - On the forms sub categories were suggested in each category and open responses were available
 - Photographs of these potential obstacles in their categories are provided below.

Data collection

- The surveys were conducted 23 – 31 October 2018 in the central city.
 - The survey avoided areas affected by a public demonstration on 22 October.
- The surveys took place at times of high flow.
 - AM peak (0730 – 0930)
 - Lunchtimes (1200 – 1400).
- The surveys took place in locations where high flow has been observed by City of Melbourne.
 - A map was marked up by parking inspectors and other staff indicating areas where pedestrian flows around obstacles had been observed.
 - The AM peak surveys were based around main roads and railway stations.
 - The lunchtime surveys included several 'Little' streets.
 - There was some overlap between the two areas.
- Data was collected by photographs and online forms linked to GPS data.
- Only obstacles were recorded
 - An object was recorded as an 'obstacle' if a pedestrian deviated from their path around the object. Motorcycles parked on the footpath (for example) were not recorded as obstacles if they did not cause deviation.
- Only 'types' of obstacles were recorded
 - The survey did not record the number of obstacles or how many times a particular object was observed to be an obstacle in each block.
- The surveyors moved from block to block (rather than observing one block for the whole period). As a result:
 - Not all peaks were observed
 - Some peaks have had been observed were not found at the survey time. The Level 5 flows filmed on blocks near Parliament and Flagstaff Stations were not observed during survey time.
 - Not all objects that are obstacles were observed
 - For example some of the bus stop structures which have been observed to be obstacles were not found to be obstacles at the time the survey

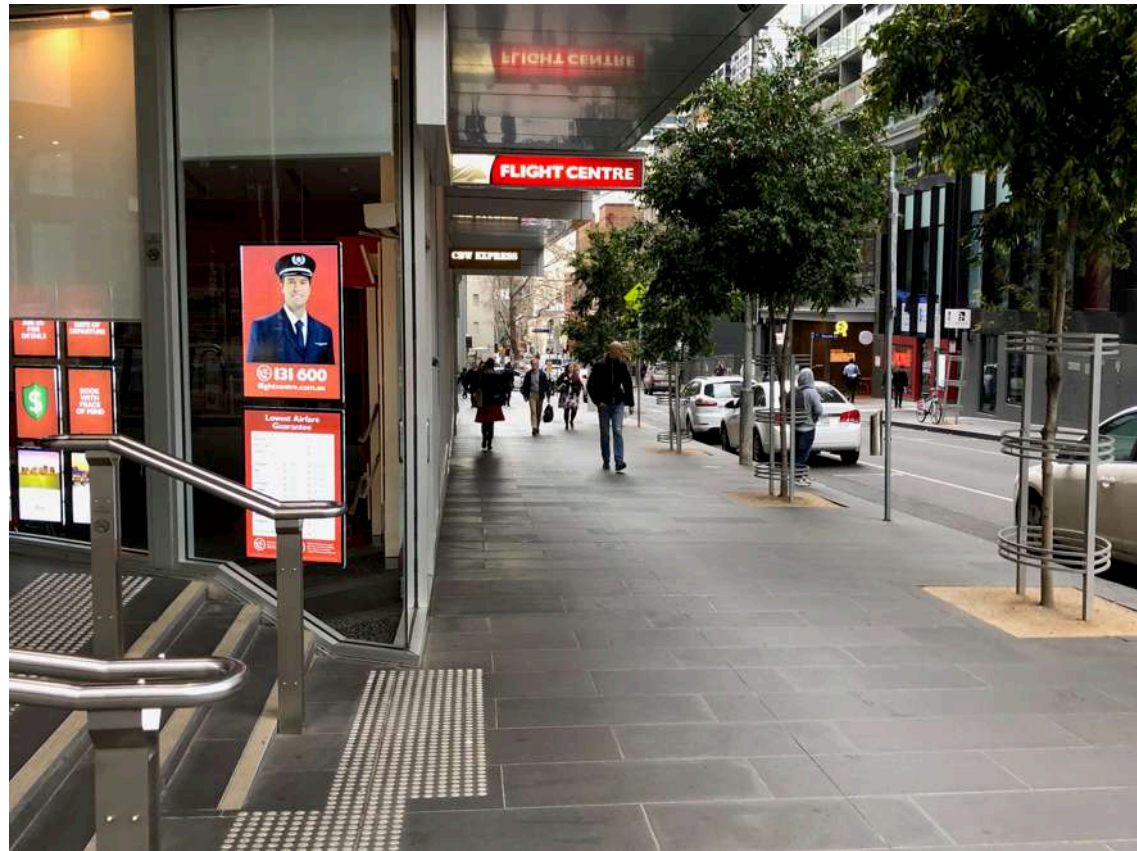
CATEGORIES USED IN THE SURVEY



Measuring flow

**FLOW ALONG BLOCKS WAS RATED
FROM 1 - 5**

1
Comfortable
walking –
some
movement,
plenty of
room



2 Uncomfortable walking



3 Walking on the kerbstone

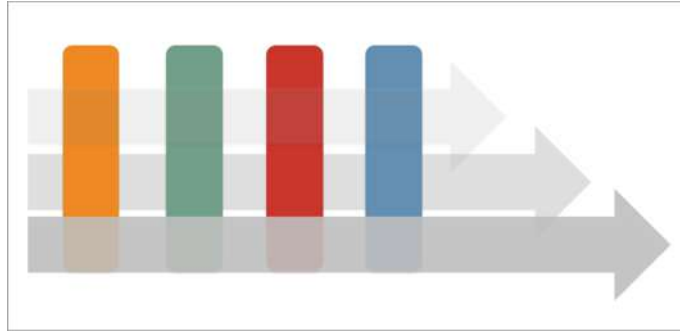


4 Walking on the road – one way



5
**Walking on
the road –
both
directions**





Measuring flow

**INTERSECTIONS WERE RATED FOR
OBSTRUCTIONS, STORAGE & FLOW**

**Low flow:
People are
walking
inside the
crossing area**



**High flow:
People are
walking
outside the
crossing area**



**Unobstructed
pedestrian
ramp:
No pole in
ramp**



**Obstructed
pedestrian
ramp:
Pole in the
pedestrian
ramp**

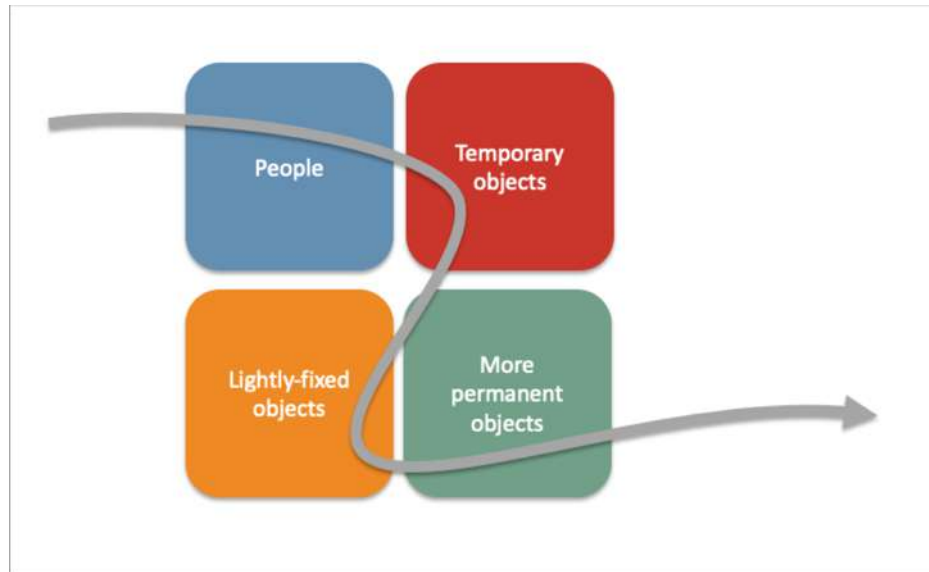


**Low storage:
No people
waiting
outside poles
and other
objects**

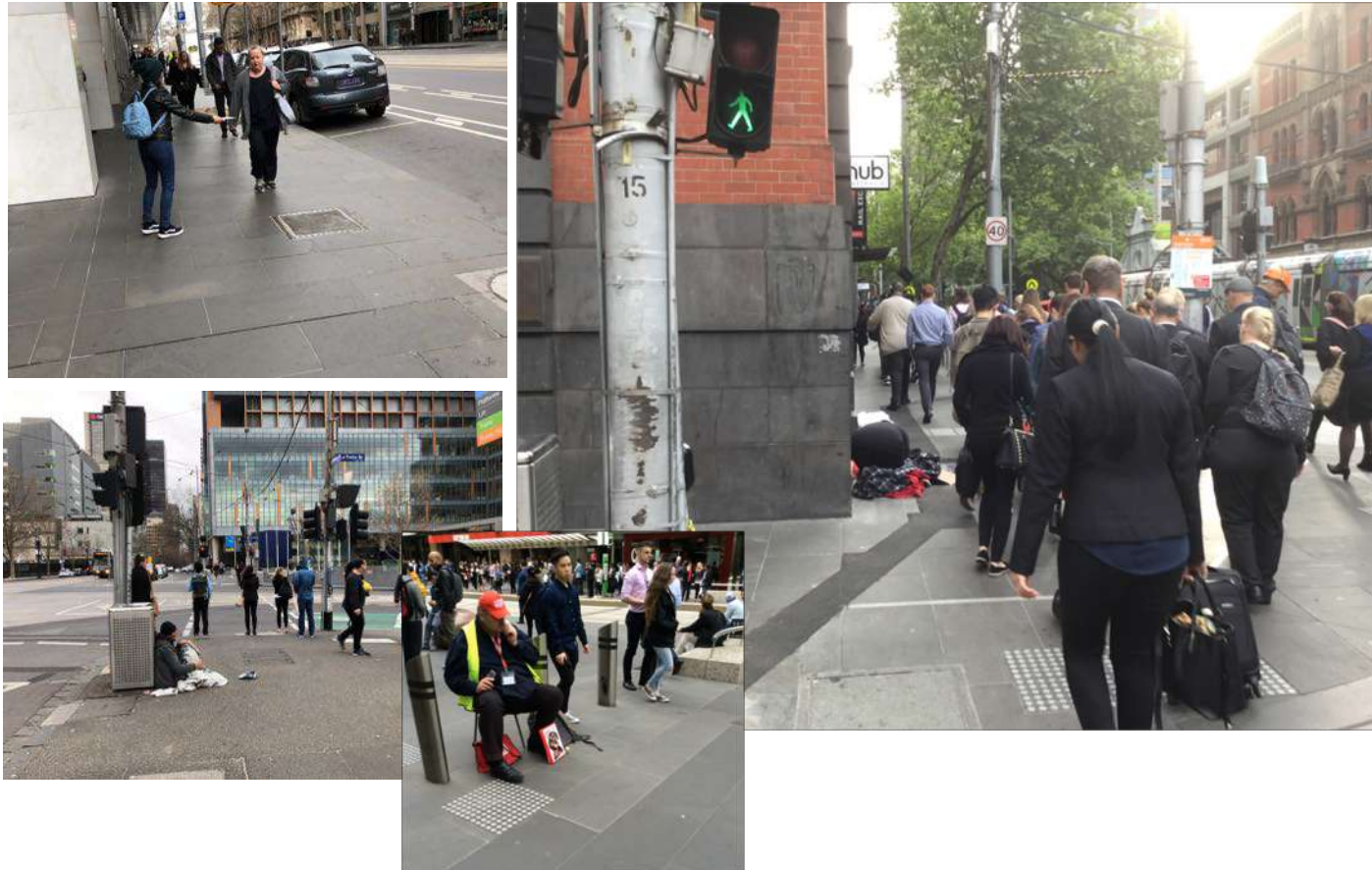


**High storage:
People
waiting
outside poles
and other
objects**

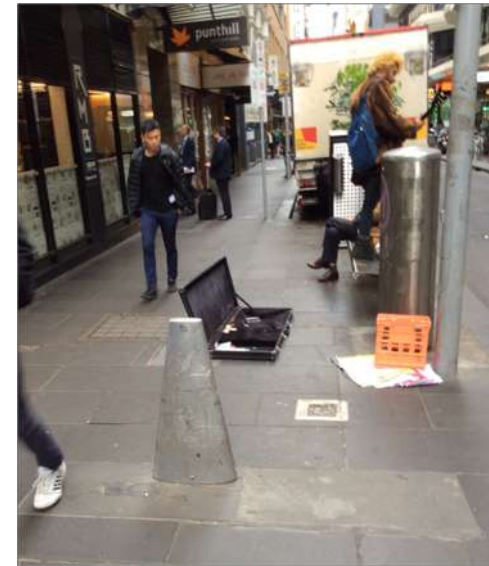




PEOPLE AS OBSTACLES



Walking area narrowed by people – collection money



Walking area narrowed by people collecting money

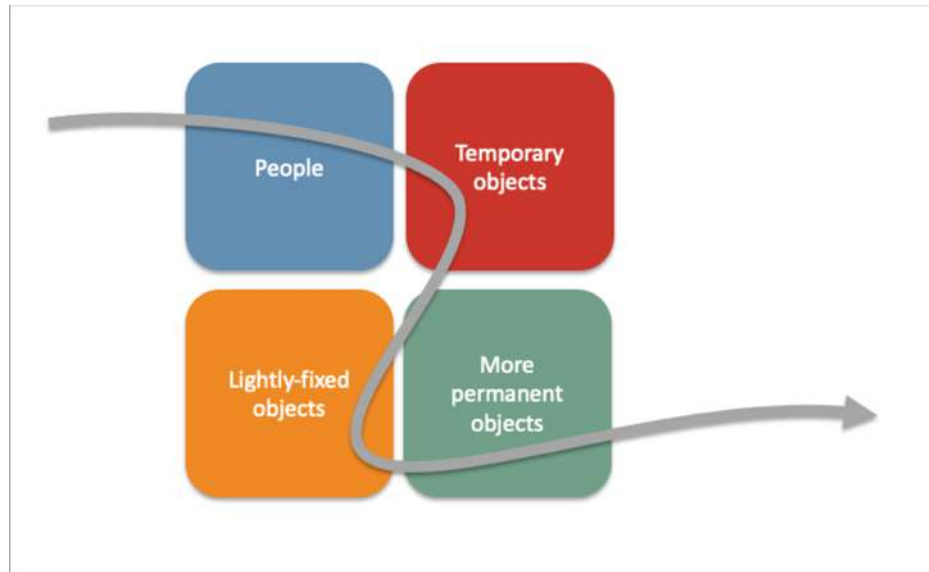


Walking area narrowed by people talking, waiting, smoking...

('Static activity' TFL)



Walking area narrowed by people wheeling things



‘Can be picked up or moved immediately’

TEMPORARY OBJECTS THAT ARE OBSTACLES



Walking area narrowed by loose rubbish



Walking area narrowed by rubbish bins



Walking area narrowed by trading

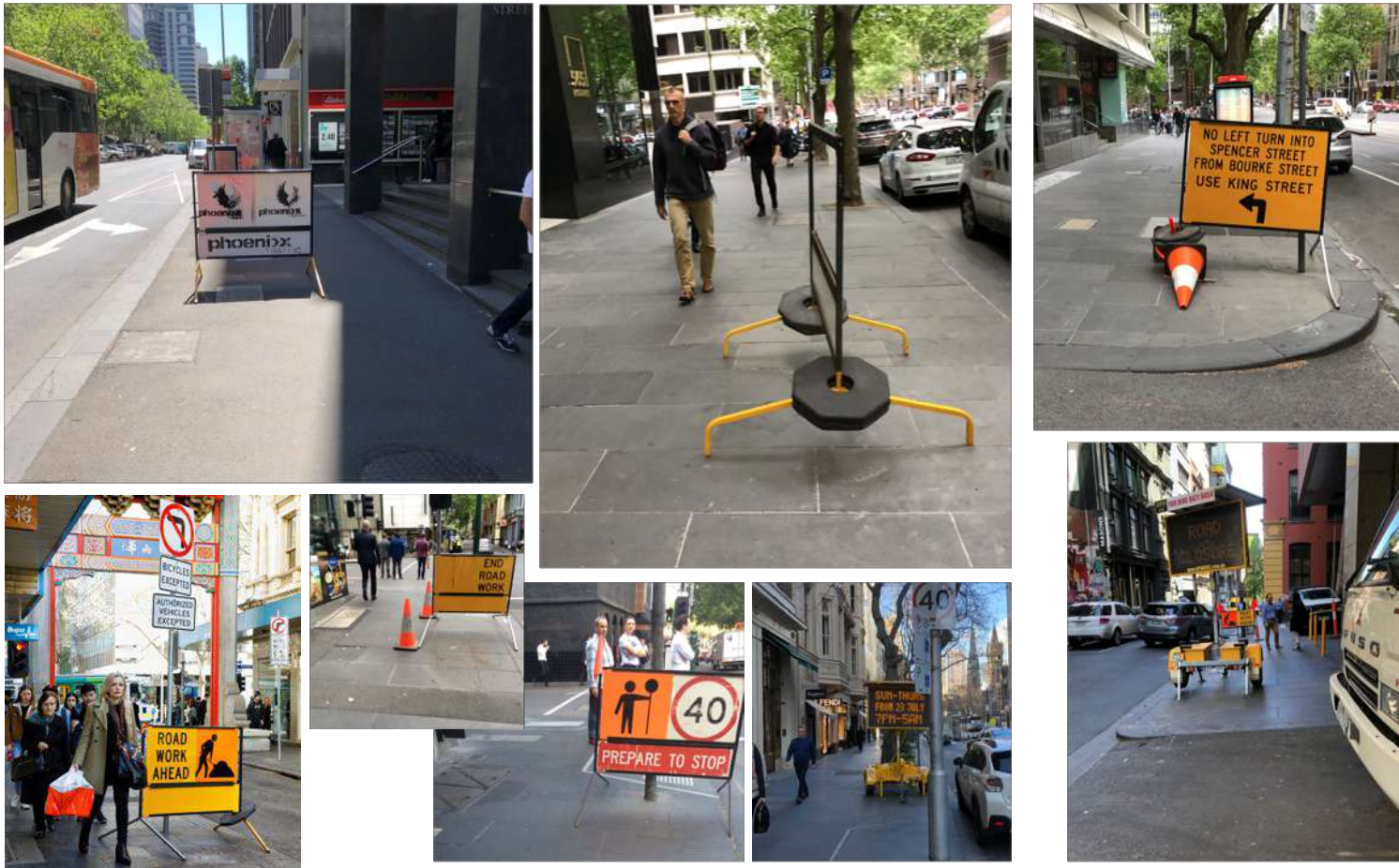
Café screen (no café), Café chairs and table (no people), Café chairs and tables with people



Walking area narrowed by café tables



Walking area narrowed by A-boards



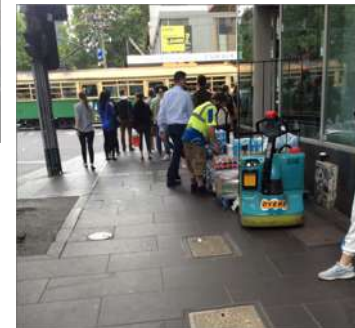
Walking area narrowed by messages to motorists



Walking area narrowed by risk alerts or water barriers



Walking area narrowed by footpath or other repairs



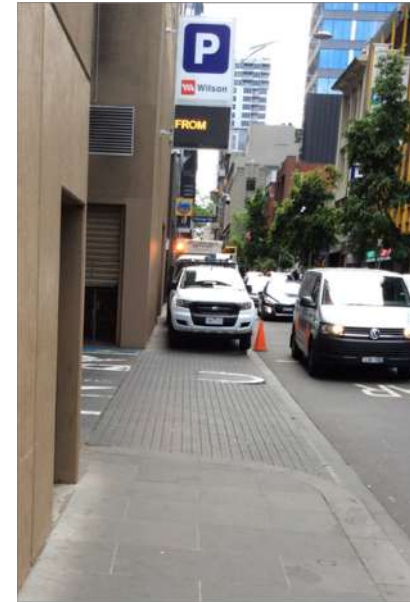
Walking area narrowed by freight



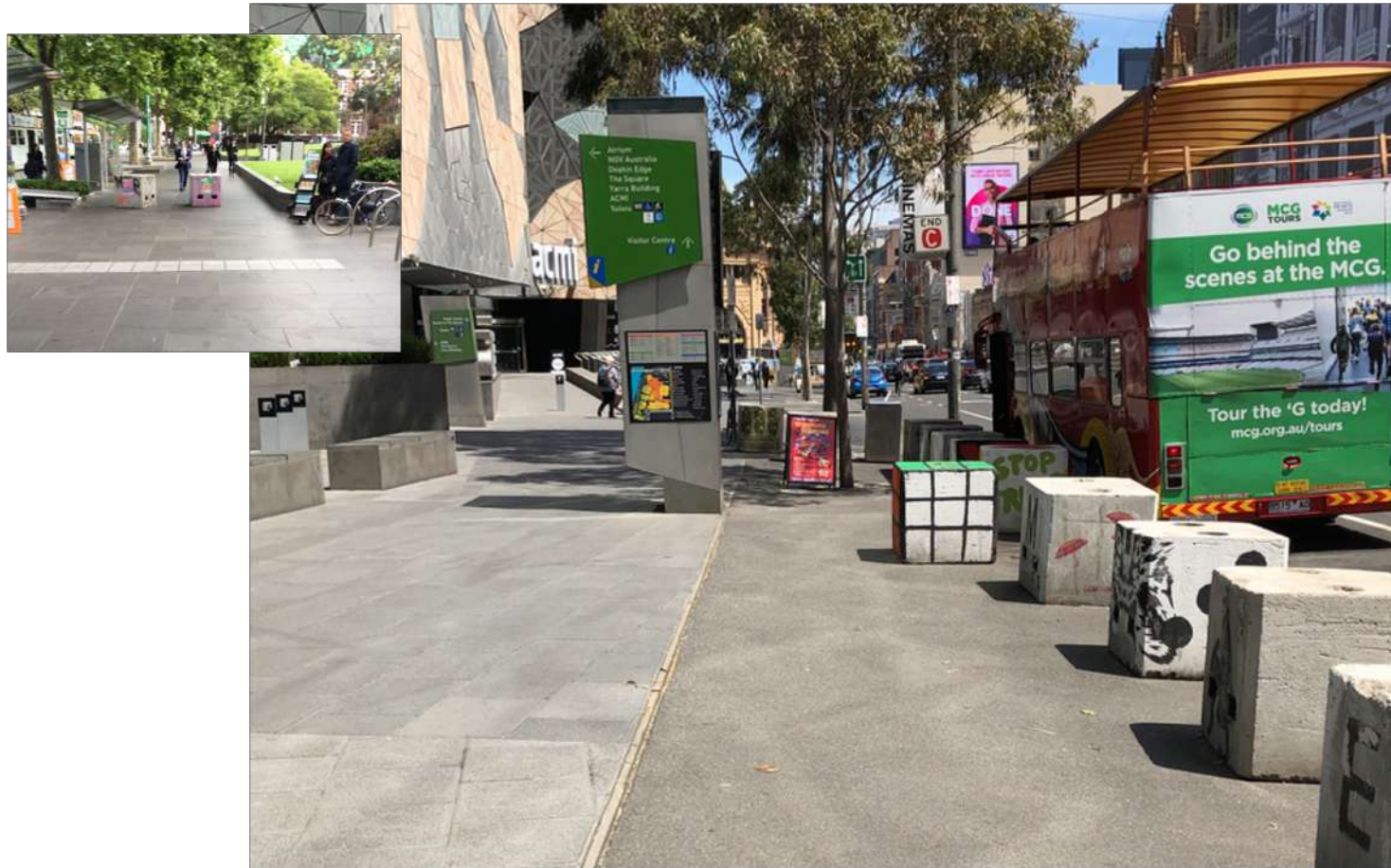
Walking area narrowed by personal effects



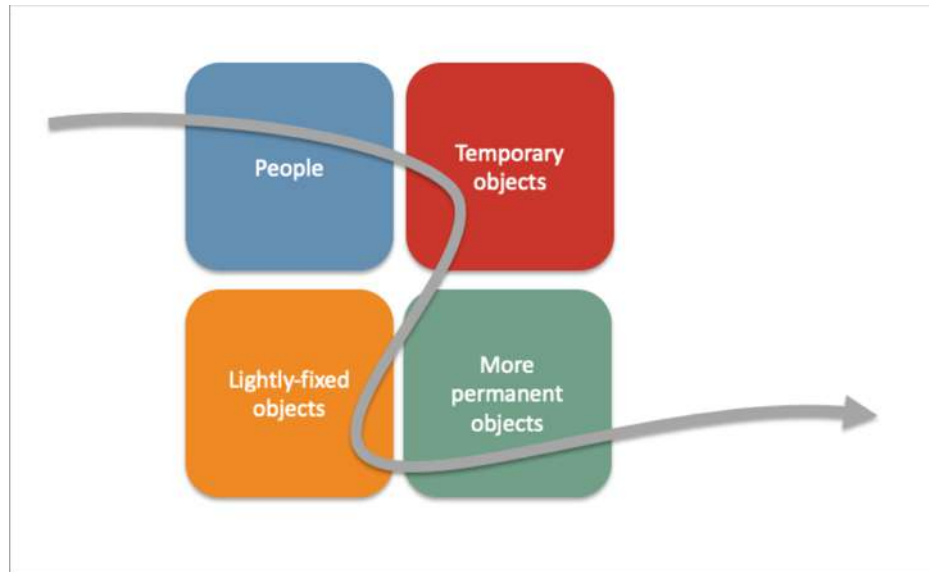
Walking area narrowed by parked motorbikes



Walking area narrowed by four-wheel vehicles



Walking area narrowed by terror blocks (and sign)



Needs a grinder or tools to remove the item – could be removed over the weekend

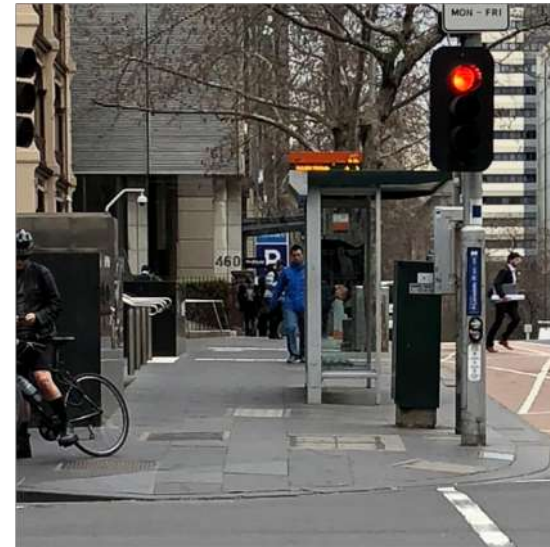
LIGHTLY FIXED OBJECTS THAT ARE OBSTACLES



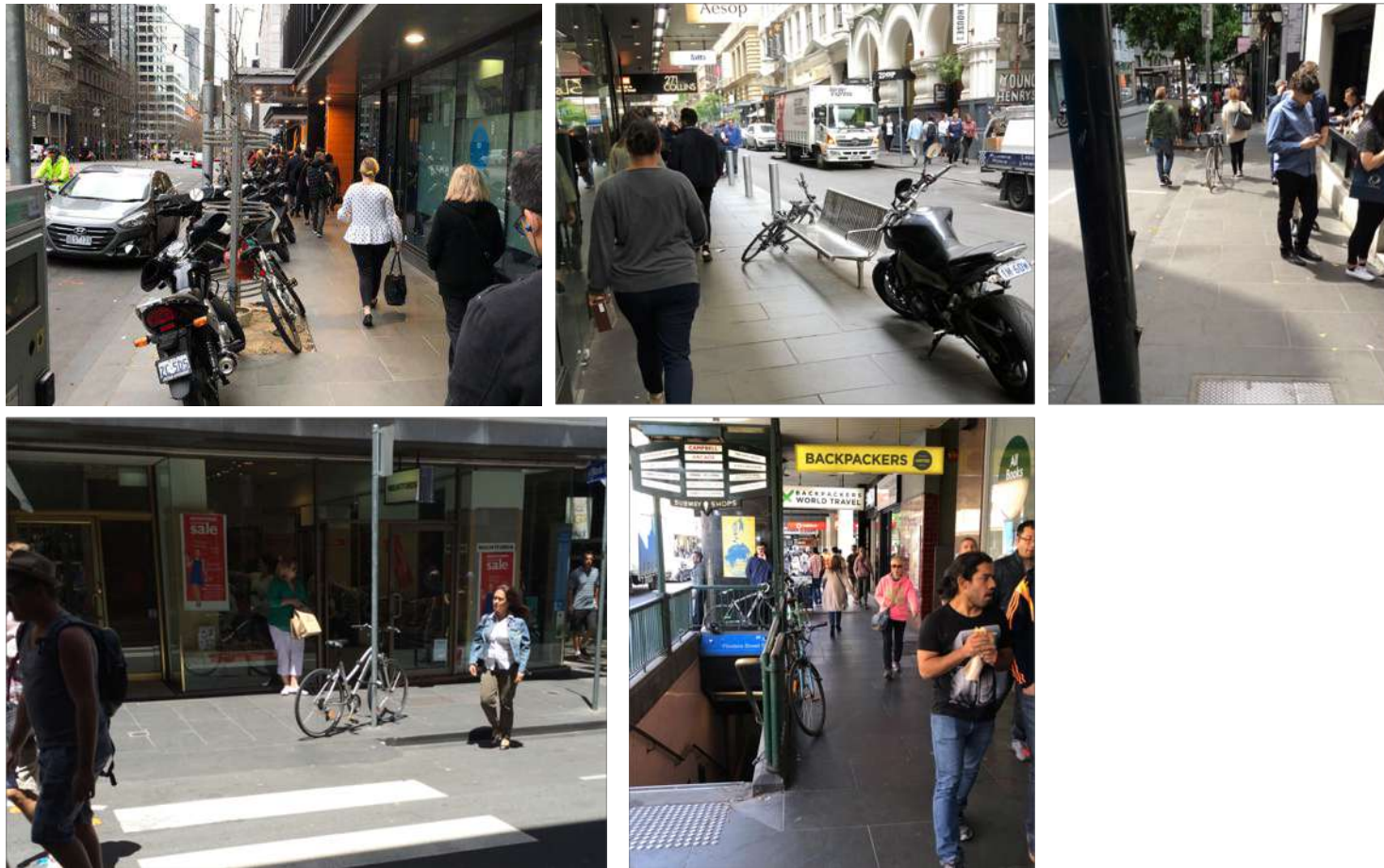
Walking area narrowed by rubbish bins



Walking area narrowed by post box or telephone



Walking area narrowed by bus shelters



Walking area narrowed by informally parked bicycles



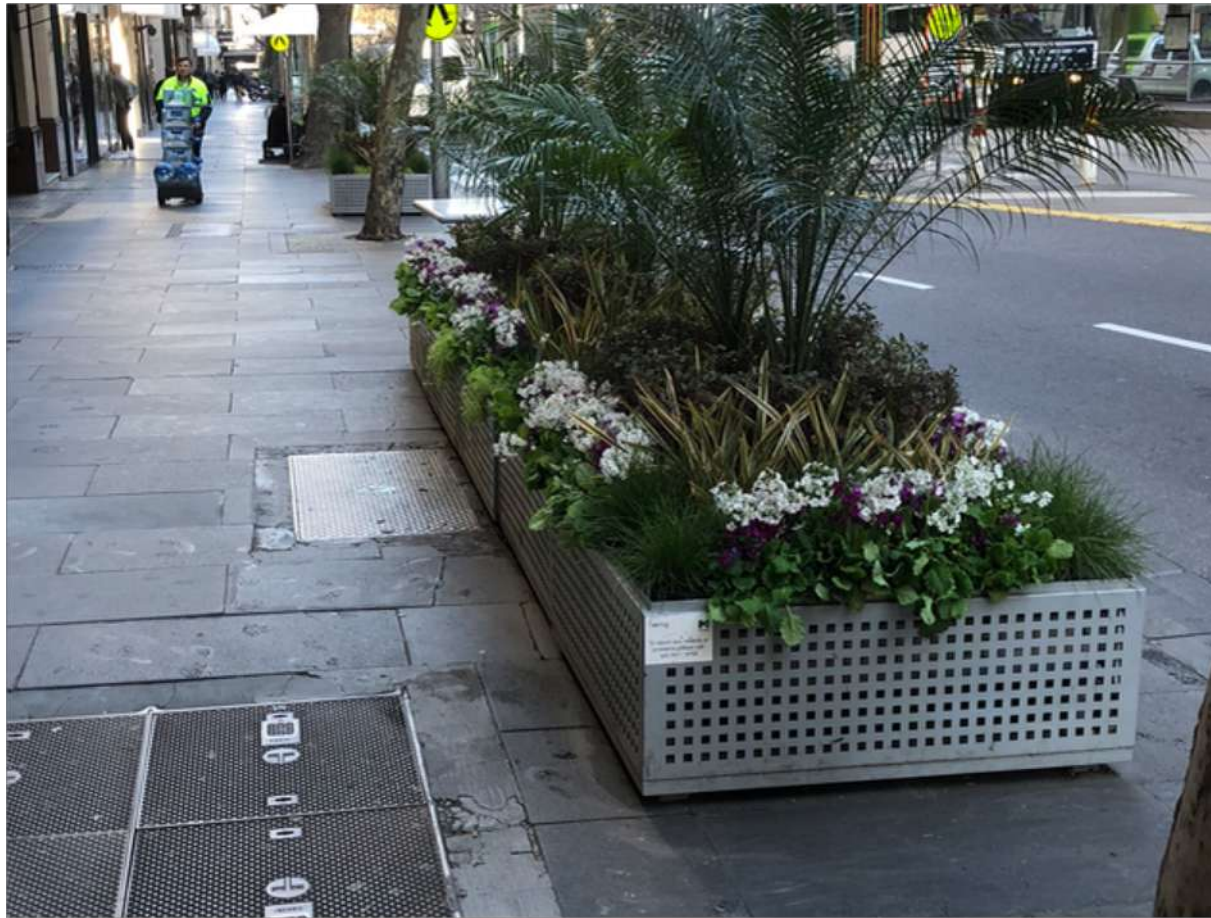
**Walking area narrowed by bicycle racks (no bicycles)
and formally parked bicycles**



Walking area narrowed by signs



Walking area narrowed by bollards



Walking area narrowed by moveable planters



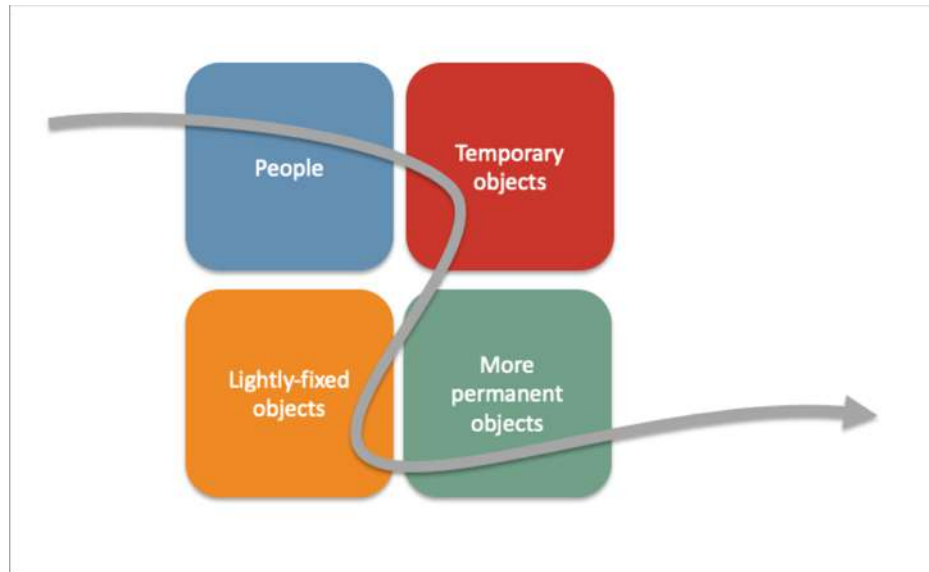
Walking area narrowed by poles



Walking area narrowed by kiosks (in use & disused)



Walking area narrowed by seats



Difficult to move due to cables or roots – would take a month to move it

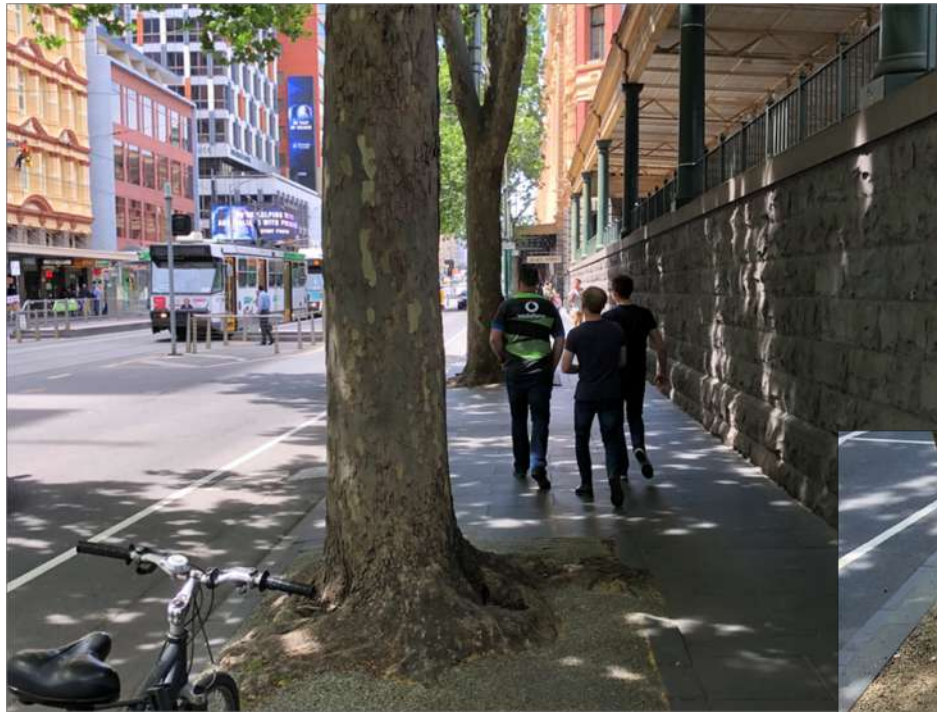
MAJOR FIXED OBJECTS THAT ARE OBSTACLES



Walking area narrowed by poles, traffic control boxes, pillars



Walking area narrowed by Art



Walking area narrowed by trees



Walking area narrowed by hoardings or construction

OBSTACLES THAT WERE OBSERVED DURING THE SURVEY BUT NOT EVALUATED



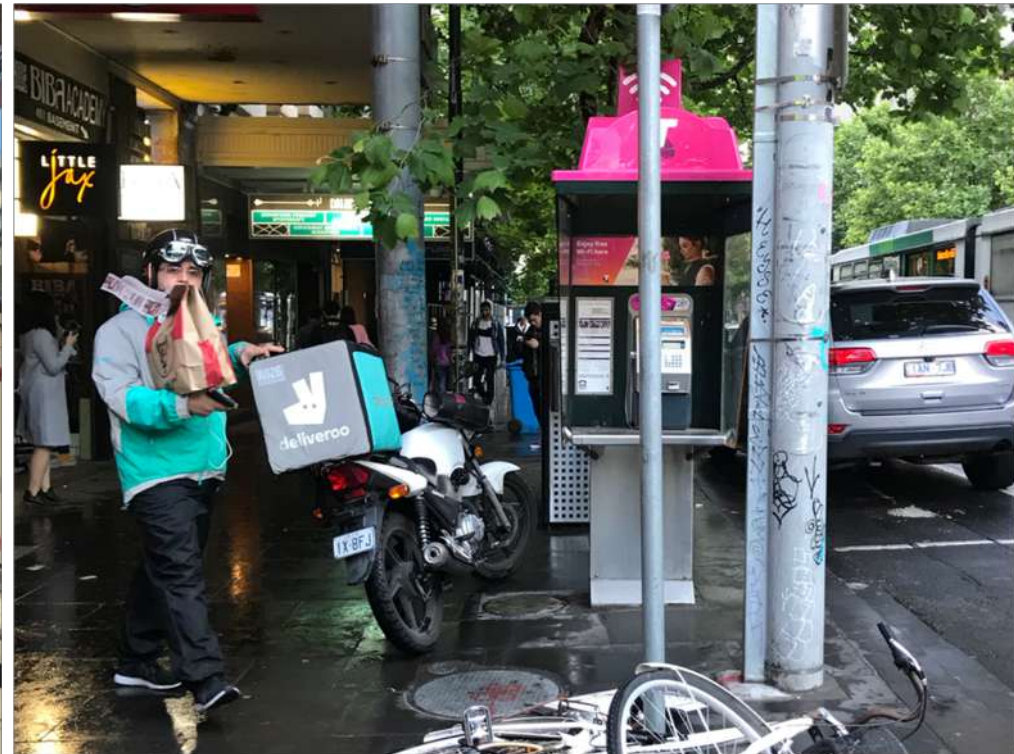
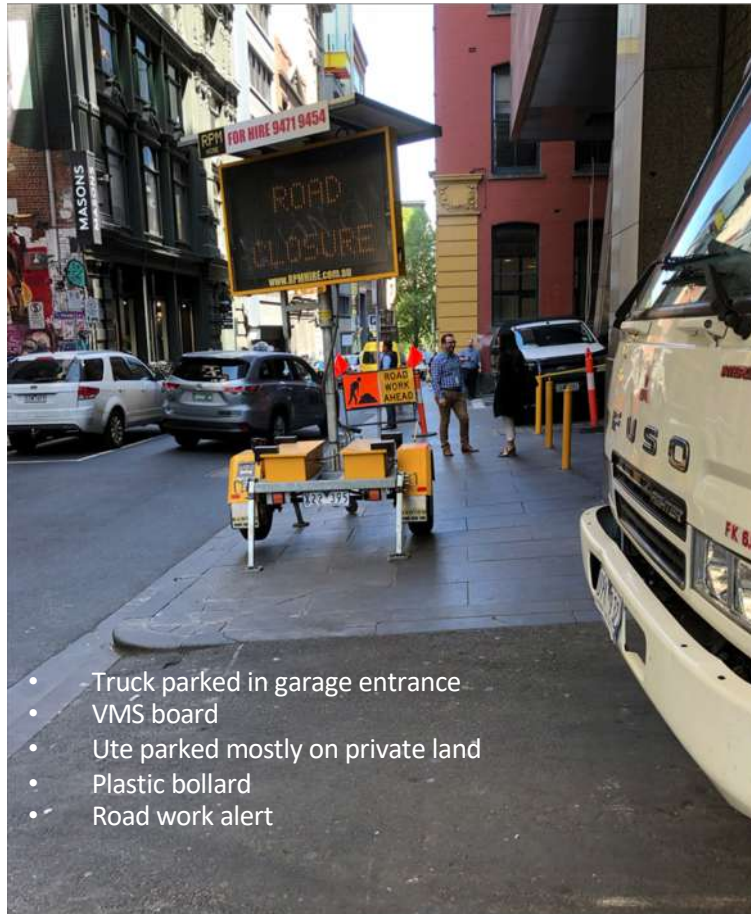
Walking area narrowed by setbacks



Walking area narrowed by unnecessary fences



Walking area narrowed by vehicles across intersections



Obstacles in combination



Walking area narrowed by lack of footpath