Shared Path Speed Hump Trial

The reason(s) for the trial, preliminary findings and next steps.

Department of Transport

James Pearse

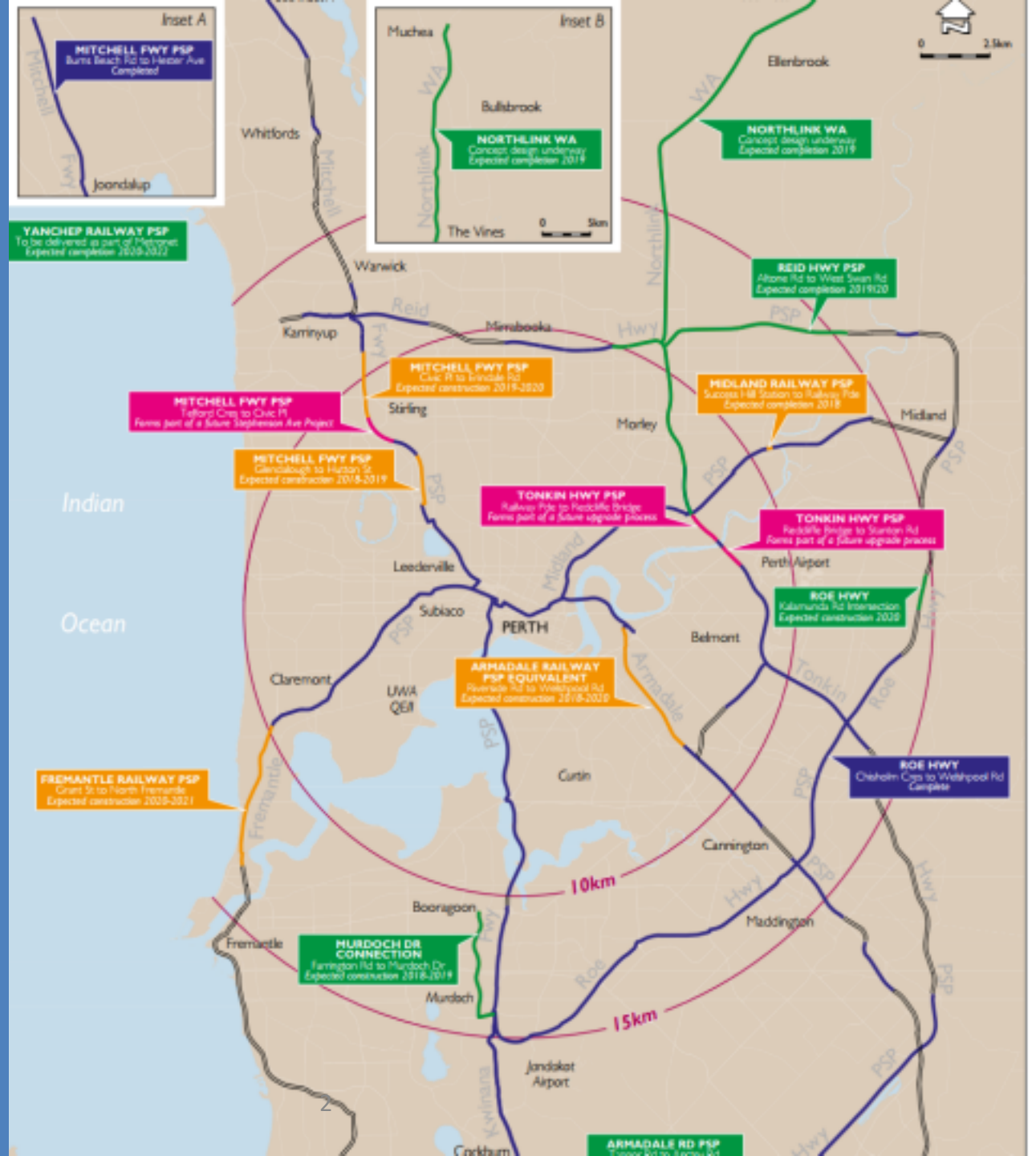
Transport Engineer at WSP

Perth, Western Australia

Perth's Shared Path Network

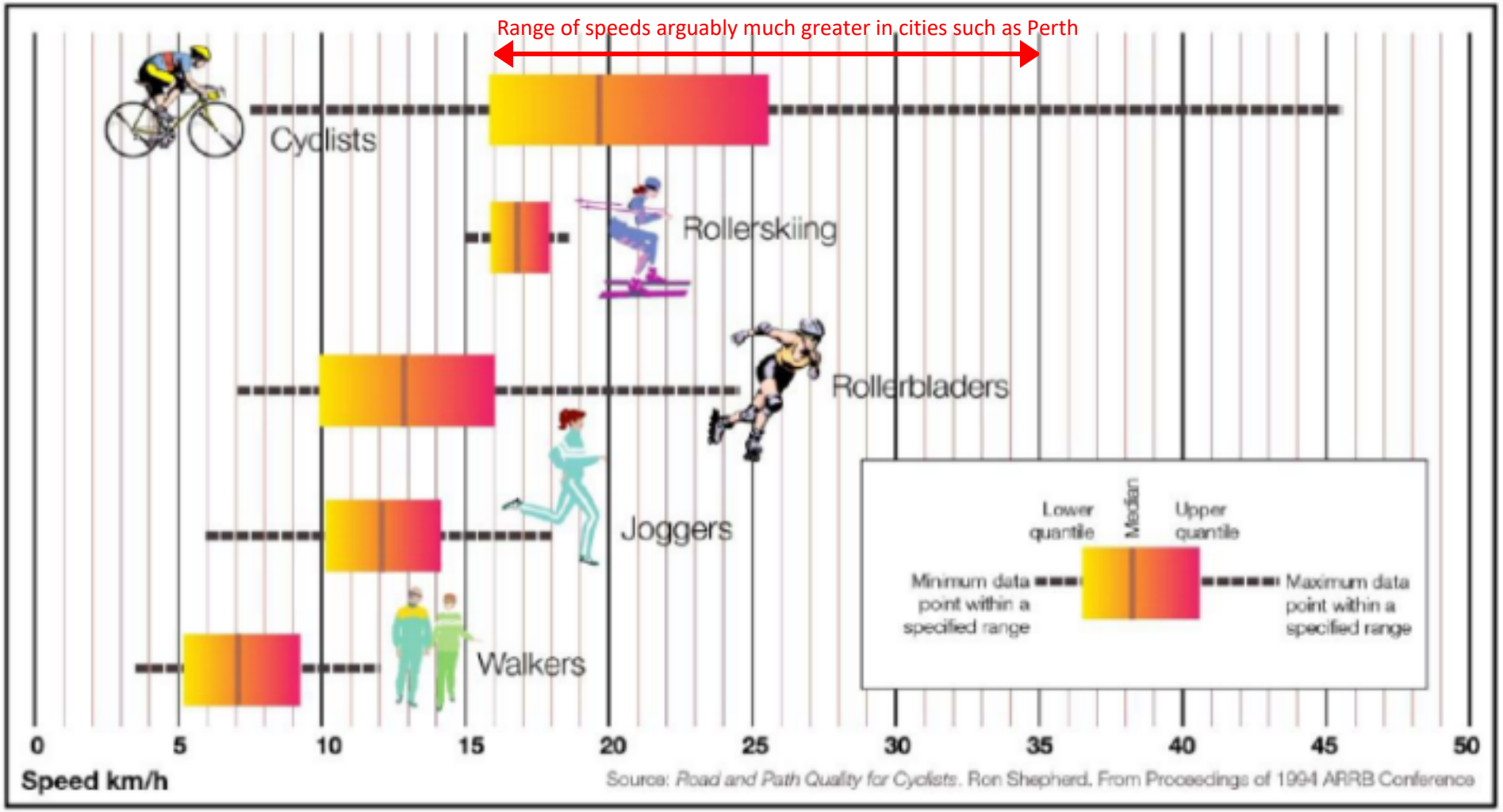
- Principal Shared Paths (PSPs) are typically located alongside:
  - Suburban railways
  - Freeways & controlled access highways
  - Other major roads (where there are relatively few intersecting side roads and driveways)

- Recreational Shared Paths (RSPs) are typically located:



The problem(s) with shared paths

- Diverse range of users
- In addition to being the fastest user group, cyclists also have largest range of operating speeds



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The problem continued.....

ABC NEWS

Location: Jolimont, WA

Just In | Politics | Australia | World | Business | Sport | Science | Arts | Analysis

Tensions between cyclists, pedestrians grow as Perth traffic increases

ABC Radio Perth | By Emma Wynne

Updated 1 Apr 2014, 4:34pm

As traffic in Perth increases, tensions between cyclists and pedestrians using shared pathways are growing.

PHOTO: Two cyclists on a shared pathway by Claisebrook train station in East Perth (ABC: Emma Wynne)

MAP: Perth 6000

Perth has a large network of shared pathways that run alongside the freeways, railways lines and the banks of the Swan River, and it is on these paths that conflict between walkers and cyclists is arising.

"There are clearly some challenges out there," said Steve Beyer, Executive Director of Integrated Transport Planning at the WA Department of Transport.

"Our city is growing very quickly and everybody is competing for space, whether it is on freeways or public transport or pathways."

Mr Beyer believes the answer lies in common sense, education and traffic calming measures rather than increased rules for cyclists.

"I think there is information, we just need to work better with various advocacy groups to disseminate information and start to build up a dialog about what is the reasonable behaviour of cyclists on the road or off the road," he said.

"Recently at City West station there were a couple of unfortunate incidents between cyclists and pedestrians, so what we have done is install a chicane at either end of the station that forces cyclists to slow down. I think that's a more sensible option.

"I think on weekends, on the shared paths around the river there is bad behaviour and people on bikes have simply got to recognise that people are out for a casual walk and they might have a dog, they might have kids and it is almost like going for a walk in the park, so they have to be sensible."

> "The idea of bringing in more rules and expecting our police force to be out there enforcing these rules is a bridge too far in many respects and not what the community needs."
>
> Steve Beyer, Executive Director of Integrated Transport Planning

Keep up with the conversation. Subscribe Conditions apply Courier-Mail

Most cyclists were clocked above 20km/h. Photo: Alf Sorbello

NATIONAL

Three in five Perth cyclists clocked above 20km/h on shared paths

TREVOR PADDENBURG, PerthNow
October 4, 2015 12:00am

- **90 of 150 cyclists clocked faster than 20km/h on shared paths**
- **Currently no legally enforced cycle limit on shared paths in WA**
- **Stirling council wants 20km/h limit on busy West Coast Drive**
- **Calls for safer bike lanes and remodelled highways for cyclists**
- **What do you think? Have your say and vote in our poll below**

THREE in five cyclists are exceeding 20km/h on Perth's most popular shared paths.

The Canberra Times | ACT News

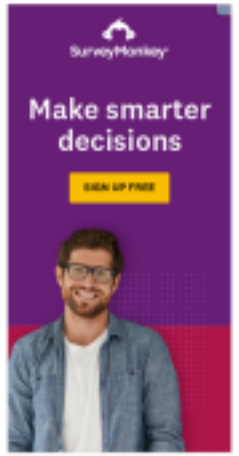
ACT News | National | Environment | Health | Education | Good Weekend | NSW News | Victoria News | Queensland

Tuggeranong woman's dog run over and killed by 'speeding' cyclist on shared path

Regan Doherty

A Tuggeranong woman says lower speed limits for shared paths should be considered after her beloved dog was run over by a speeding cyclist on a path through an enclosed underpass.

The nearly 12-year-old pomeranian, Miko, was run over by the cyclist on Sunday evening and died of his injuries on Wednesday night.



The problem continued…..

Conflict point outside City West Station.

Speed control measures that work but aren't very safe

Bollard treatment, Cannington Station

Staggered fence treatment, Shenton Park Station

Bollard treatment, Scarborough beach RSP

wsp

Department of Transport

Speed control measures which are safe but don’t really work

Transverse rumble strips and advisory pavement markings on approach on approach to pedestrian crossing, City West Station


Path deflection treatment on approach to pedestrian crossing, City West Station


“Shared Zone” pavement markings on approach to pedestrian crossing, Baywater Station

Introducing: *Brommerdrempels*

- Found (exclusively?) in the Netherlands

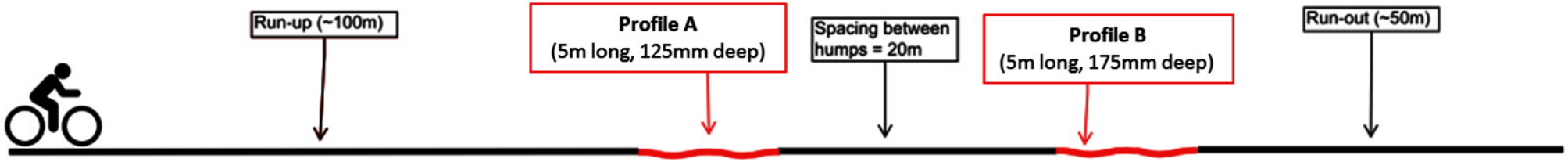
- Aimed at reducing the speeds of moped users (but not make cycling uncomfortable)

Could a similar treatment be employed to curb the speeds of very fast cyclists in certain locations?

- How to strike a balance between safety and effectiveness?

- How to ensure it is suitable for all types of shared path user?

Phase 1 (October 2017)



Hump Profile	Length	Amplitude	No. of dips
A	5 m	125 mm	2
B	5 m	175 mm	2
C	5 m	125 mm	3
D	5 m	175 mm	3

Tandem bike | Tag-along | Stroller | Wheelchair | Handcycle | Road bike | Cargo bike | Gopher

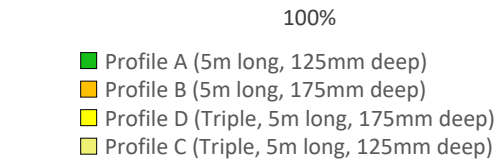
Phase 1: Specific issues

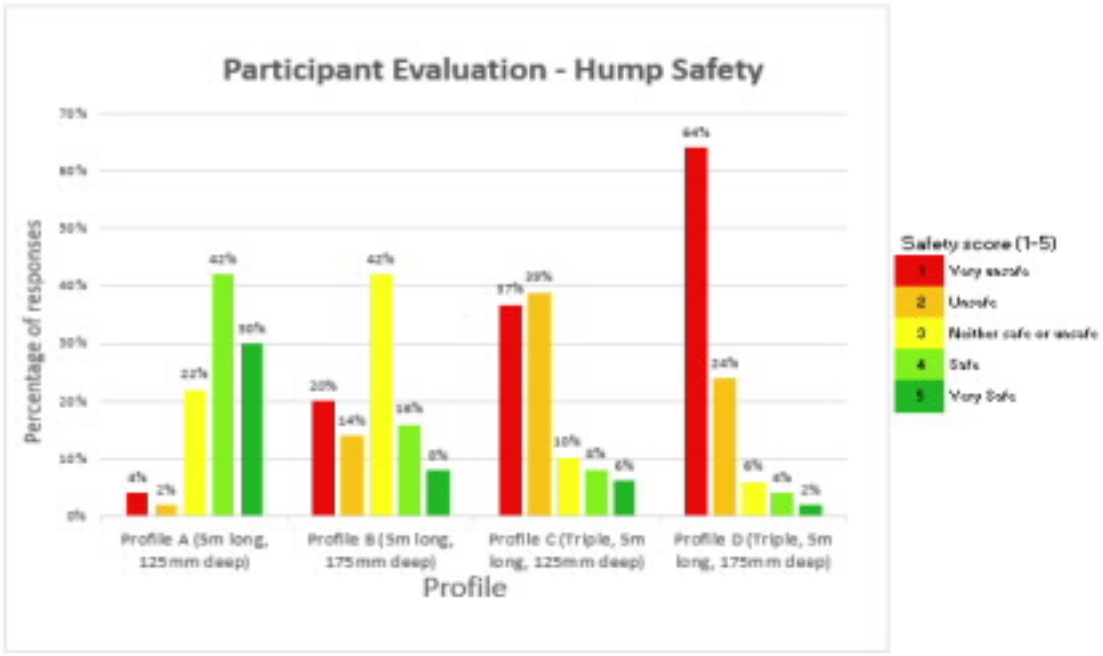
Profiles			Phase 1			
			Profile A (5m long, 125mm deep)	**Profile B** (5m long, 175mm deep)	**Profile C** (Triple, 5m long, 125mm deep)	**Profile D** (Triple, 5m long, 175mm deep)
	Pedal strike	Tandem Bike	✓	×	×	×
		Mountain Bike	✓	✓	✓	×
	Bottoming-Out	Handcycle	×	×	×	×
		Scooter	✓	×	×	×
		Gopher	✓	✓	×	×
	Instability	Wheelchair	✓	✓	×	×
		Gopher	✓	✓	×	×
		Cargo Bike	✓	✓	×	×
		Rollerblades	✓	✓	×	×
		Skateboard	✓	✓	×	×
		Vision impaired pedestrians	✓	×	×	×
	Other	Tag-Along (Discomfort for children in-tow.)	✓	✓	×	×

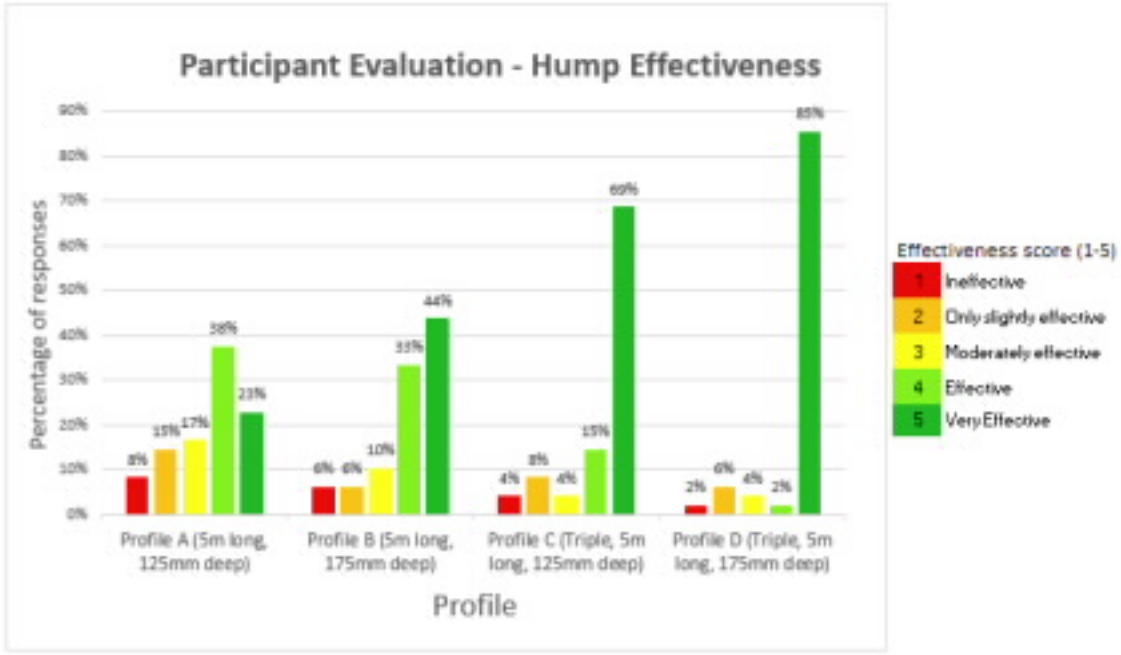
Phase 1: Key findings

- Strong inverse relationship between perceived effectiveness and perceived safety
- Triple humps were deemed too dangerous by most participants
- 100% of participants found Profile A to be the most suitable overall

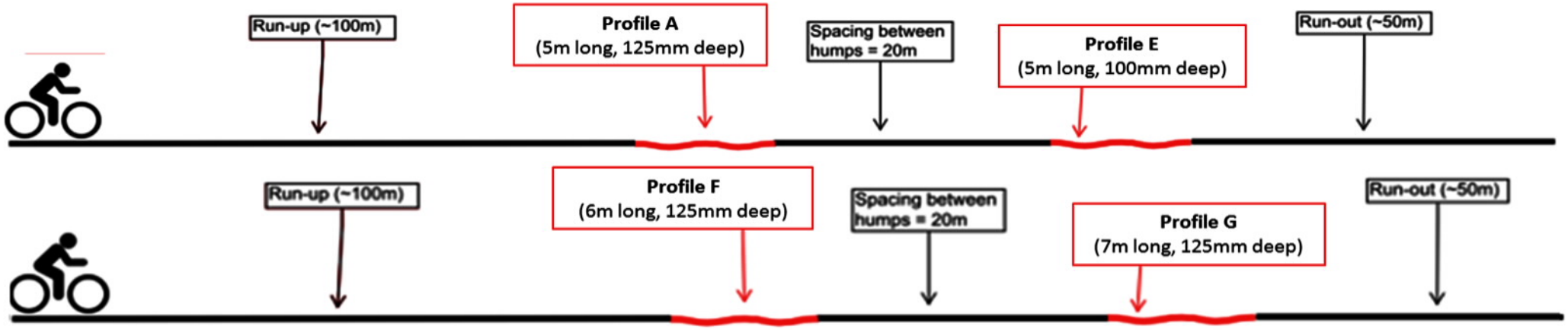
Which hump profile is m ost suitable?







Phase 2 (March 2018)



Hump Profile	Length	Amplitude	No. of dips
A (control from Phase 1)	5 m	125 mm	2
E	5 m	100 mm	2
F	6 m	125 mm	2
G	7 m	125 mm	2

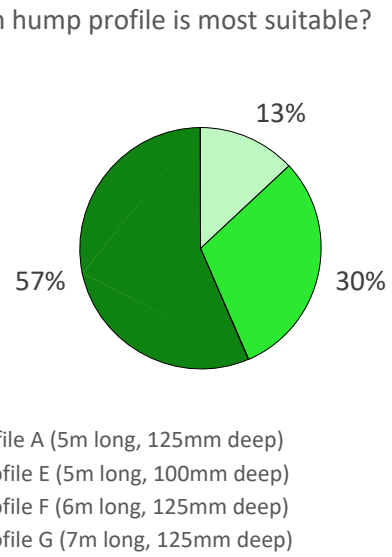
Rollerblades | Handcycle | Wheelchair | Tandem Bike | Racing tricycle | Folding bike | Pram | Recumbent bike

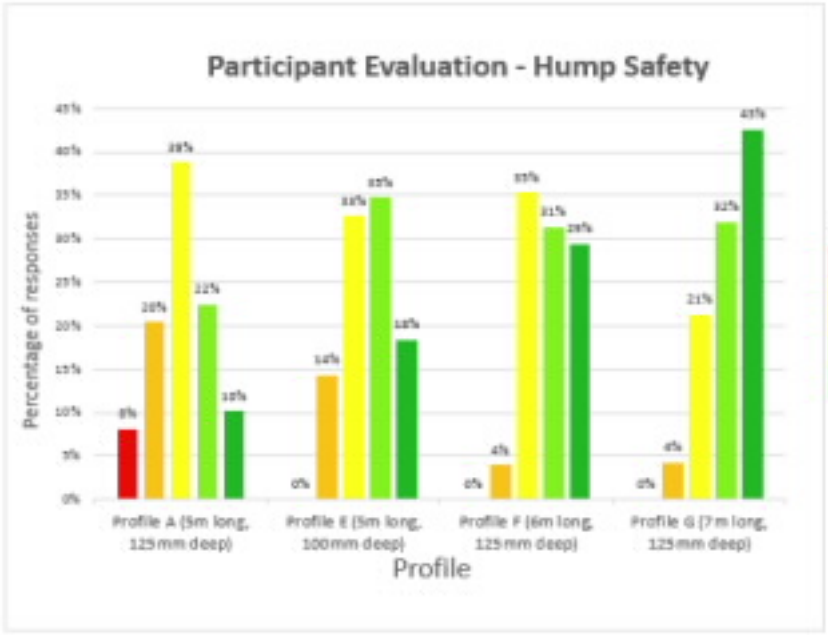
Phase 2: Specific issues

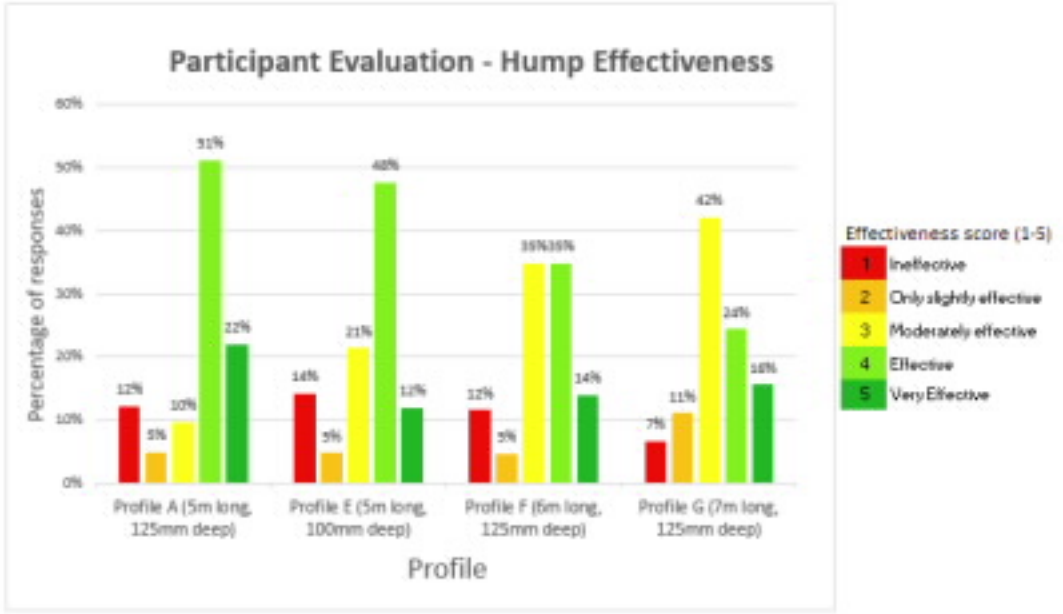
Profiles			Phase 1				Phase 2		
			Profile A (5m long, 125mm deep)	**Profile B** (5m long, 175mm deep)	**Profile C** (Triple, 5m long, 125mm deep)	**Profile D** (Triple, 5m long, 175mm deep)	**Profile E** (5m long, 100mm deep)	**Profile F** (6m long, 125mm deep)	**Profile G** (7m long, 125mm deep)
	Pedal strike	Tandem Bike	✓	×	×	×	✓	✓	✓
		Mountain Bike	✓	✓	✓	×	✓	✓	✓
	Bottoming-Out	Handcycle	×	×	×	×	✓	✓	✓
		Scooter	✓	×	×	×	✓	✓	✓
		Gopher	✓	✓	×	×	✓	✓	✓
	Instability	Wheelchair	✓	✓	×	×	✓	✓	✓
		Gopher	✓	✓	×	×	✓	✓	✓
		Cargo Bike	✓	✓	×	×	✓	✓	✓
		Rollerblades	✓	✓	×	×	✓	✓	✓
		Skateboard	✓	✓	×	×	✓	✓	✓
		Vision impaired pedestrians	✓	×	×	×	✓	✓	✓
	Other	Tag-Along (Discomfort for children in-tow.)	✓	✓	×	×	✓	✓	✓

Phase 2: Key findings

- None of the new profiles (E, F, G) were to be deemed “very unsafe”
- The majority of the participants found Profile A to be the “least suitable”
- Over half of the participants found Profile G to be the “most suitable”







What next?

Literature review & desktop study

Trial phase 1 - investigation
- Closed environment
- Qualitative assessment of hump performance
- Emphasis on safety

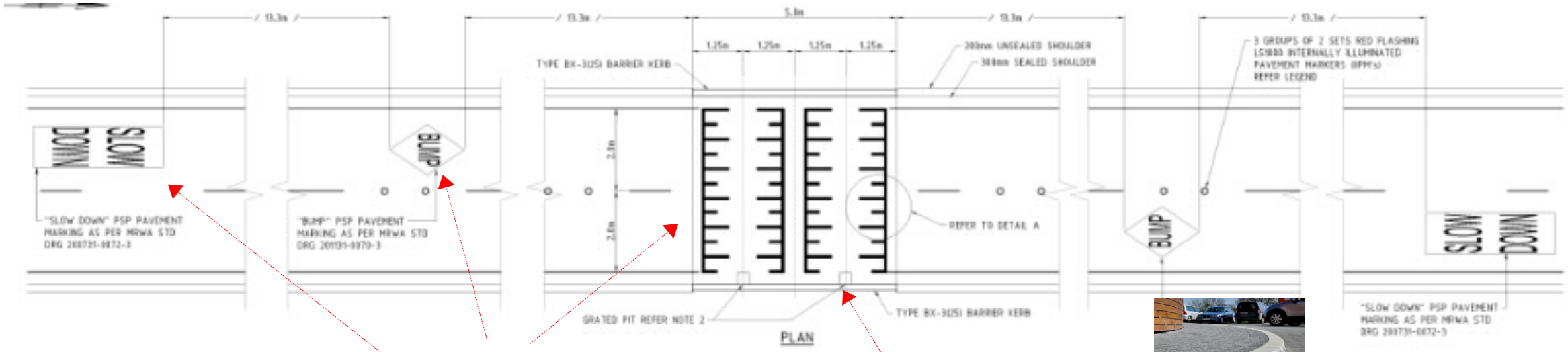
Trial phase 2 - refinement
- Closed environment
- Qualitative assessment of hump performance
- Emphasis on safety

Trial phase 3 – evaluation
- "Live" environment
- Quantitative assessment of hump performance
- Emphasis on effectiveness

Development of standard details and usage guidelines*

***Pending success of Phase 3**

We are here



Indicative pavement markings to be used in phase 3

Potential drainage solution


Brommerdrempel Trial
Principal Shared Path, Claremont
(measurements indicative only)
10.0m
13.5m
13.5m
9.0m
9.0m
10.0m


Thank you
for your
attention