IPWEA Thought Leadership Webinar Series, 9.9.21

Leveraging Walking in New Zealand's Urban Environments

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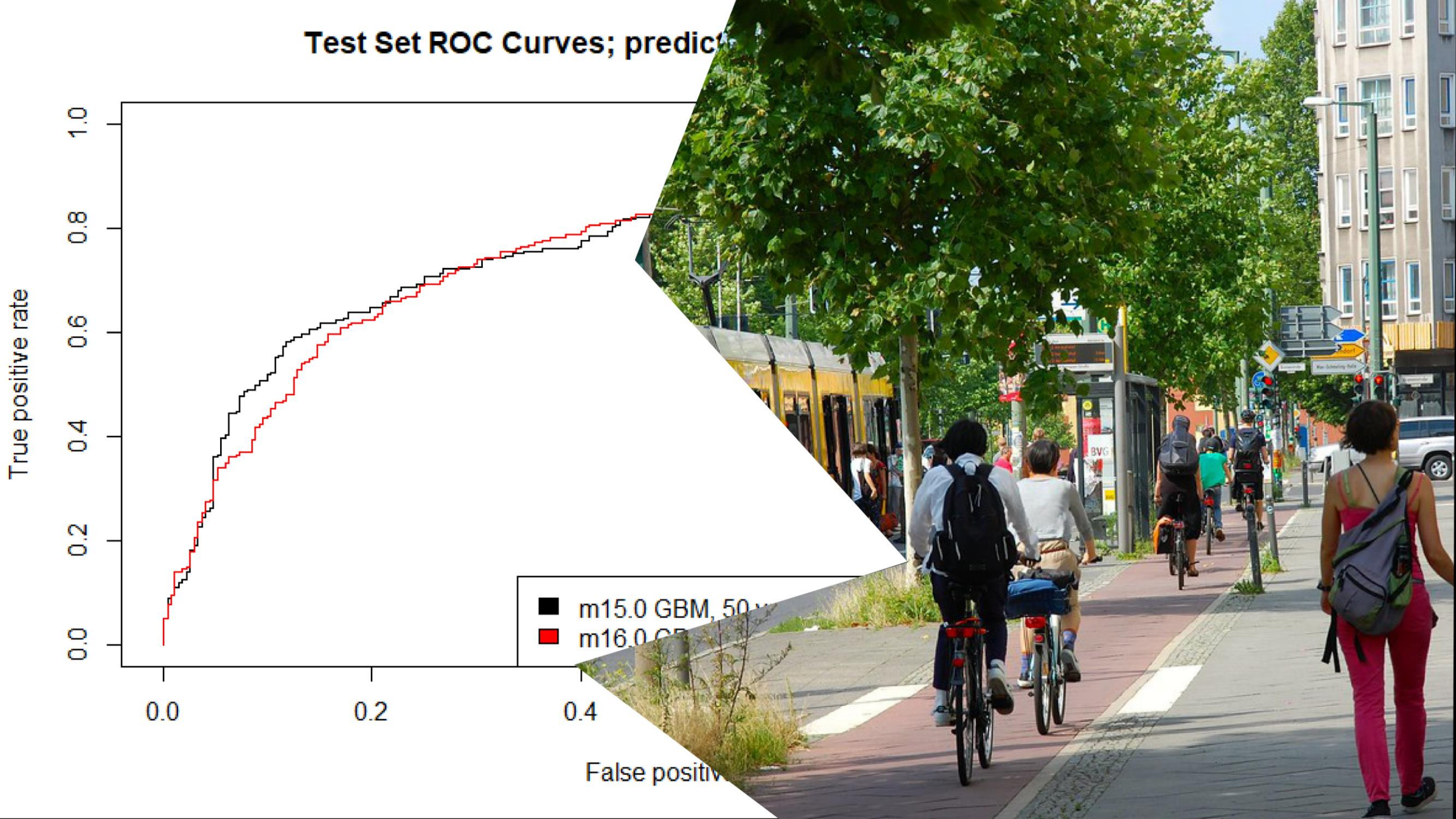
Test Set ROC Curves; predict
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Gehl Architects. (2010). Auckland Public Life. Retrieved from http://knowledgeauckland.org.nz/assets/publications/Auckland_Public_Life_Survey_2010_Part_1.pdf

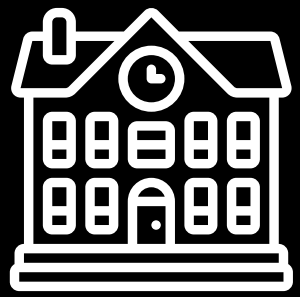
Auckland Transport, NZ Transport Agency, & KiwiRail. (2018). Regional Land Transport Plan. https://at.govt.nz/about-us/transport-plans-strategies/regional-land-transport-plan/

Potentials for Auckland

¼ driven trips **< 1km** [1]

41% residents would like to walk more [2]

< 450 m daily walking for transport [1]



[1] Household Travel Survey data, 2015-17, Central Auckland
[2] Auckland Transport Active Modes Survey, 2016-2018 data


Experience?
Who doesn't even try?
INDEPENDENT LIVING SERVICE
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DRIVE THR
B.M.URLOVIC

The problem

If you were to allocate retrofit money, where would you start?

PhD Thesis

- **Theoretical model**: environment – perceptions – walking
- **Barriers to walking**
  - As perceived by Aucklanders
  - Disabled vs non-disabled people
  - Objective characterisation
  - Reality-check of guidelines
- **(Dis)agreements between professionals**
  - Barriers to walking
  - Priorities and challenges re: implementing walkable environments

Social Model of Walkability

Destinations
Street environment
Transport system

Perceptions

Ethics
Pleasure
Comfort
Convenience
Safety
Accessibility
Feasibility

Walking behaviour

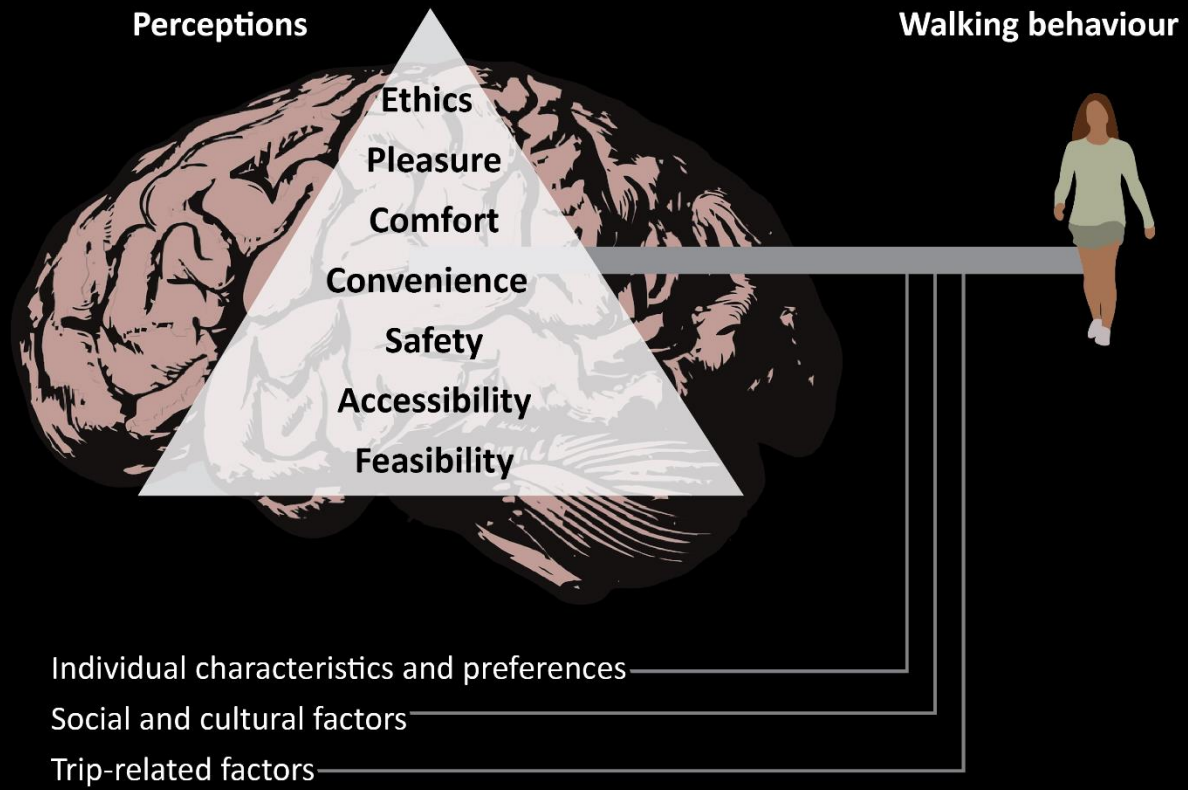
Individual characteristics and preferences
Social and cultural factors
Trip-related factors

Conceptual framework adapted from Alfonzo 2005, Mehta 2008, Buckley et al, 2017, and studies

Why Aucklanders (don’t) walk

Data: Auckland Transport Active Modes Survey

- 2016-2018
- 4,114 respondents
- Disclaimer: non-disabled

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Zurich, photo Harry Schiffer

Model 17, walking (tertiles 1 or 3) vs barriers, motivations, perceptions, age and gender

Depth =2. Non null variables regarding relative influence. AT data 2016-18, N=2566; 25.9.19

Barriers: perceived

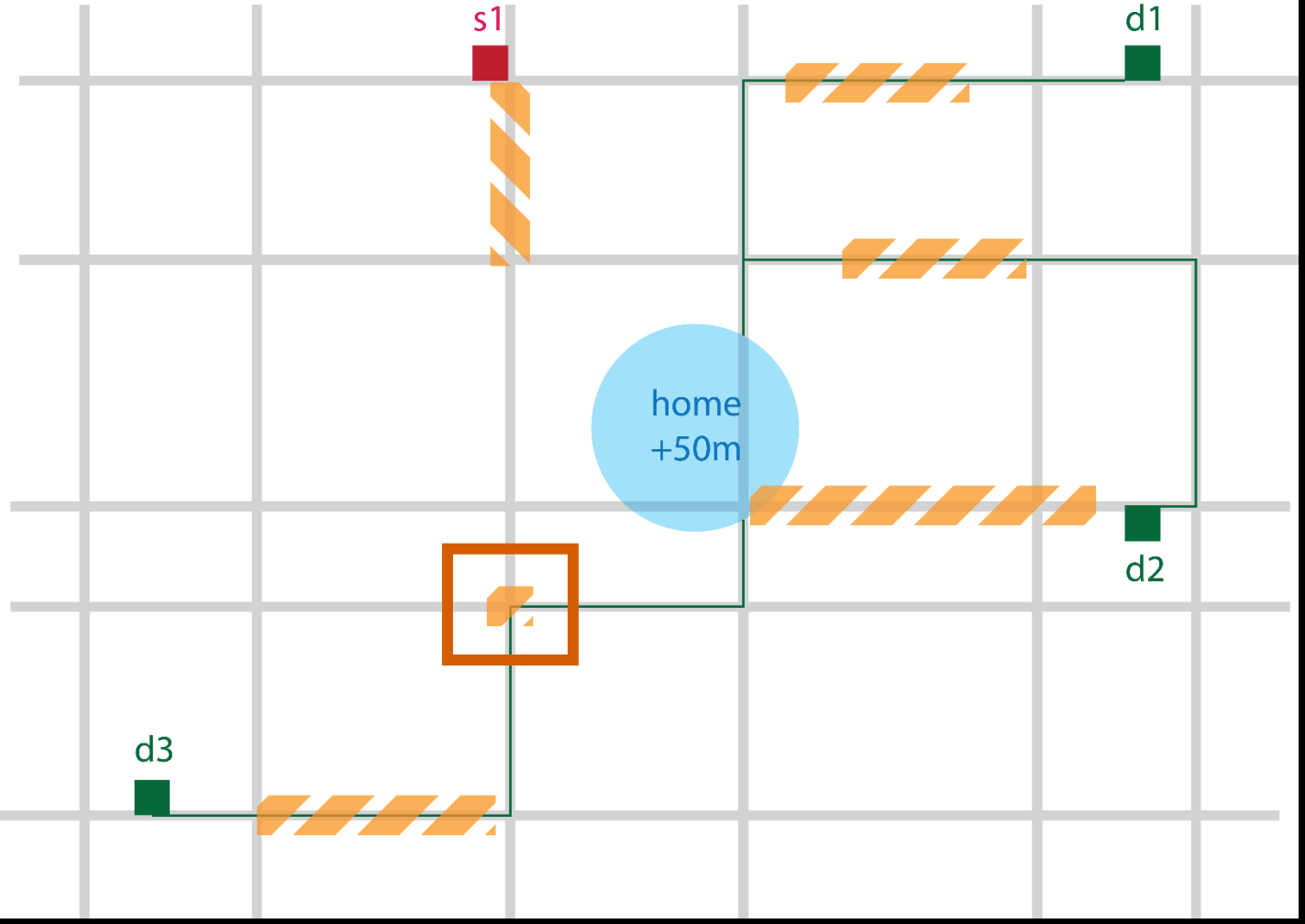

Illustration of the mapping exercise done during the interviews

Barriers: perceived & measured

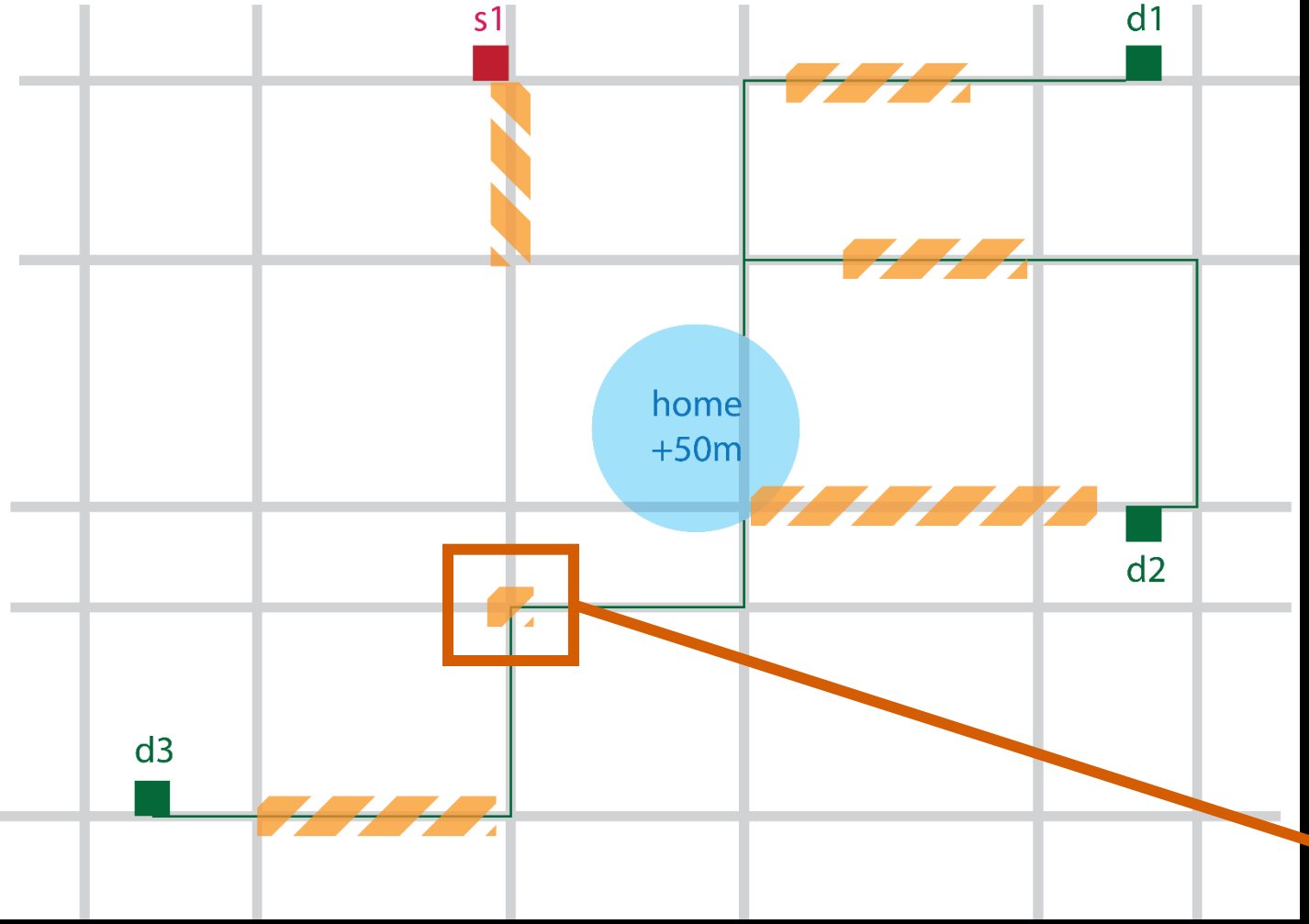

Illustration of the mapping exercise done during the interviews

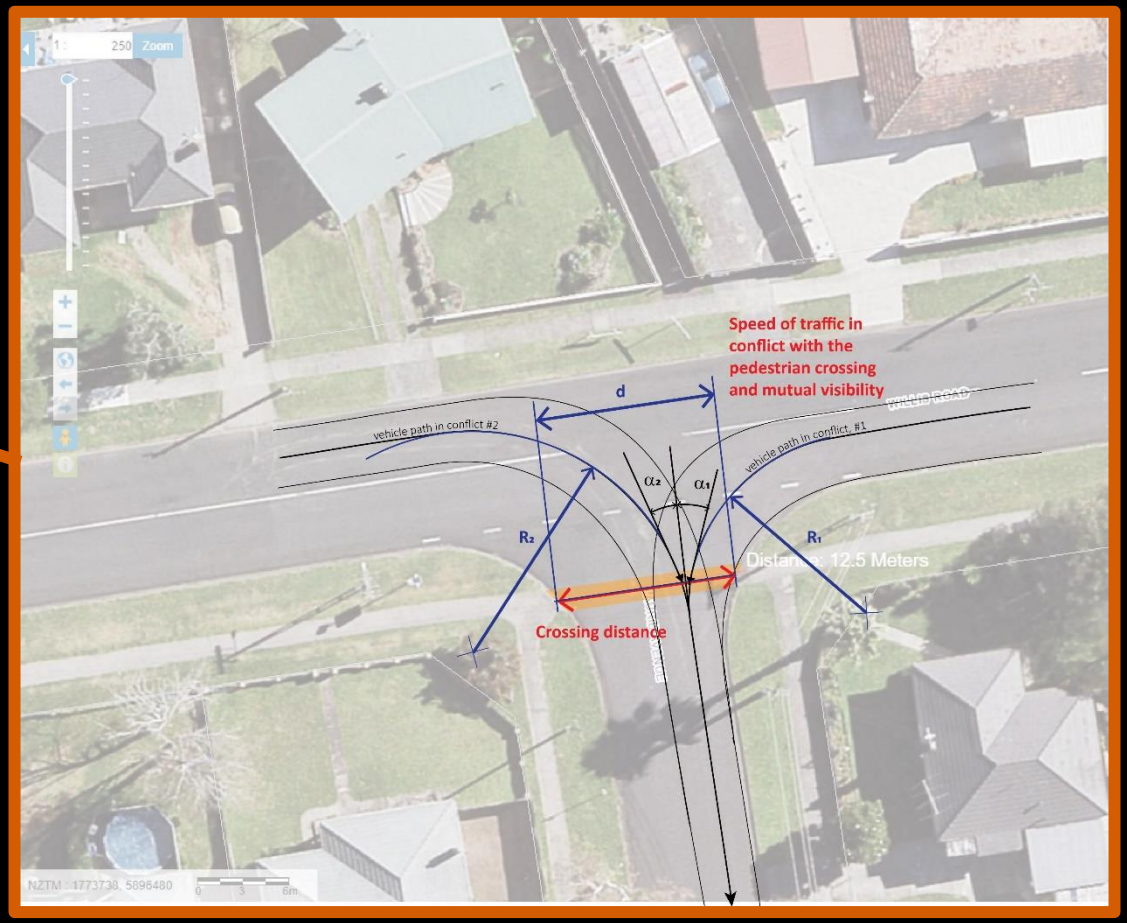

Illustration: environmental survey

Barriers in participants’ words

bit.ly/walking_AKL

Barriers as experienced by people

- Critical importance of traffic, and traffic-related infrastructure
- Differences between disabled and non-disabled people: disabled participants:
  - Reported mainly on most basic needs not met (feasibility, accessibility)
  - Were overall unable to travel spontaneously, despite a wealth of strategies

Guidelines and best practice

- Would the guidelines and best practice identify the experienced barriers?
- Three major caveats:
  - Lack of nuance in the assessment of environments
  - Not specific enough
  - Lack of inputs for identifying the “worst-of”

Professionals' views

Participants: 28 experts

- Urban design
- Road safety
- Transport planning
- Public health
- Urban development
- Urban strategy

Topics

- Users' experiences (UX)
- Priorities and challenges
- Evidence

Challenges re transforming the car-centric city

- Systemic complexity
- Car-centric policies, governance, and technical practices
- Lack of interest in and data regarding UX
- A vicious circle - policy, engagement, delivery, and UX
- Number of disagreements between professionals

Findings

- Systemic barriers to walking exist
- Systemic retrofit is necessary
  - For everyone
  - Highest stakes for disabled people, now discriminated against
- Better data and specific insights can help prioritise interventions
- Need for multidisciplinary systems approaches

Take-away for practice

Team up with academia to better understand the diverse barriers people experience

Develop guidelines re identifying the “worst of”

Consider the barriers identified; measure the walking environment and prioritise retrofit

Thank you!

Technical report: bit.ly/non-walkable-AKL

Happy to answer questions


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