

# Glen Eden Micromobility Hub

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**LOCKY DOCK**

# Active access to transit matters

## Health

Enhances physical fitness  
and reduces stress

## Access

Better connections to jobs,  
education, and essential  
services

## Climate

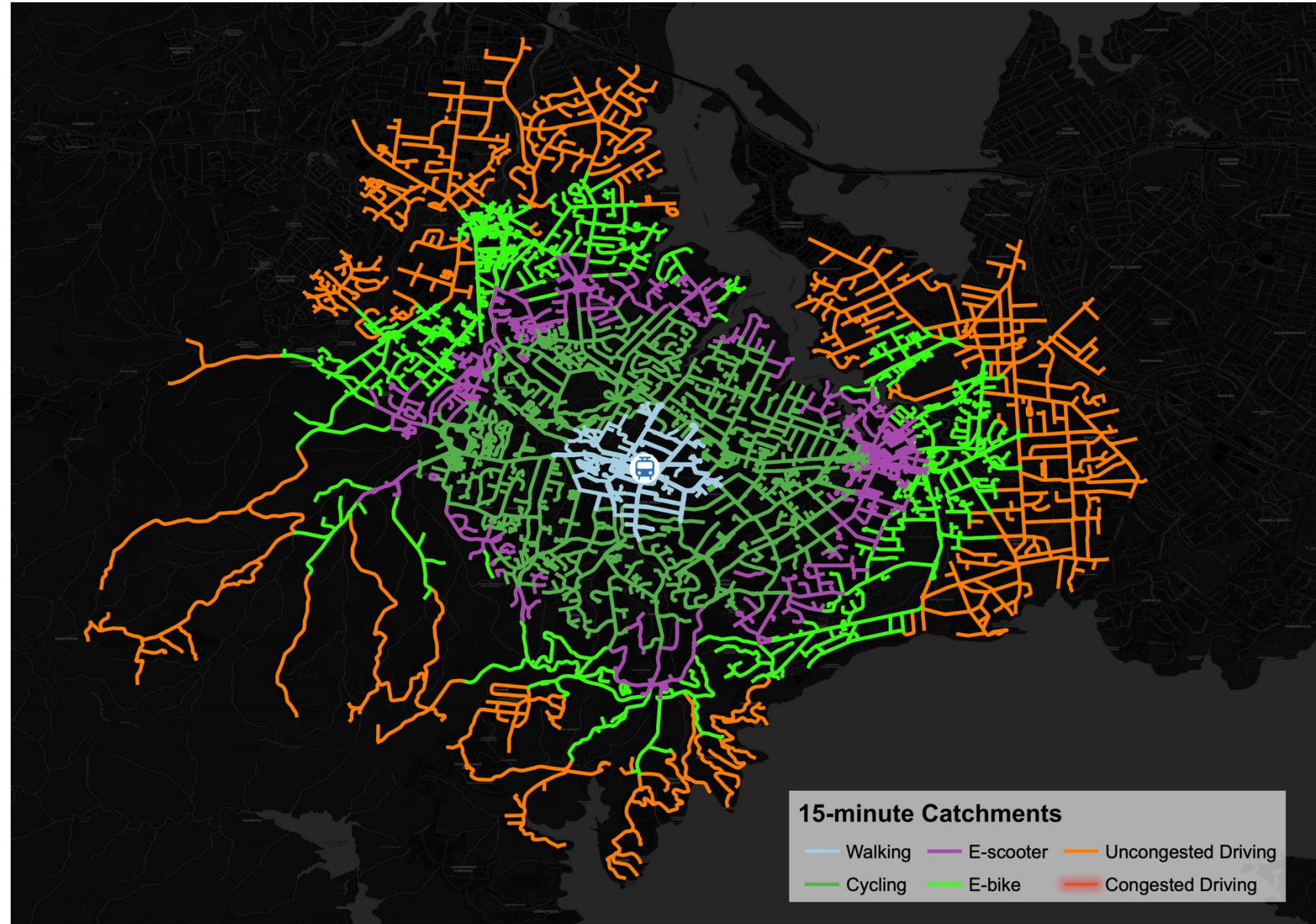
Reducing short car trips  
cuts emissions significantly



# Active access to transit often fails

Travel time favours  
active modes

But most trips end  
in a car





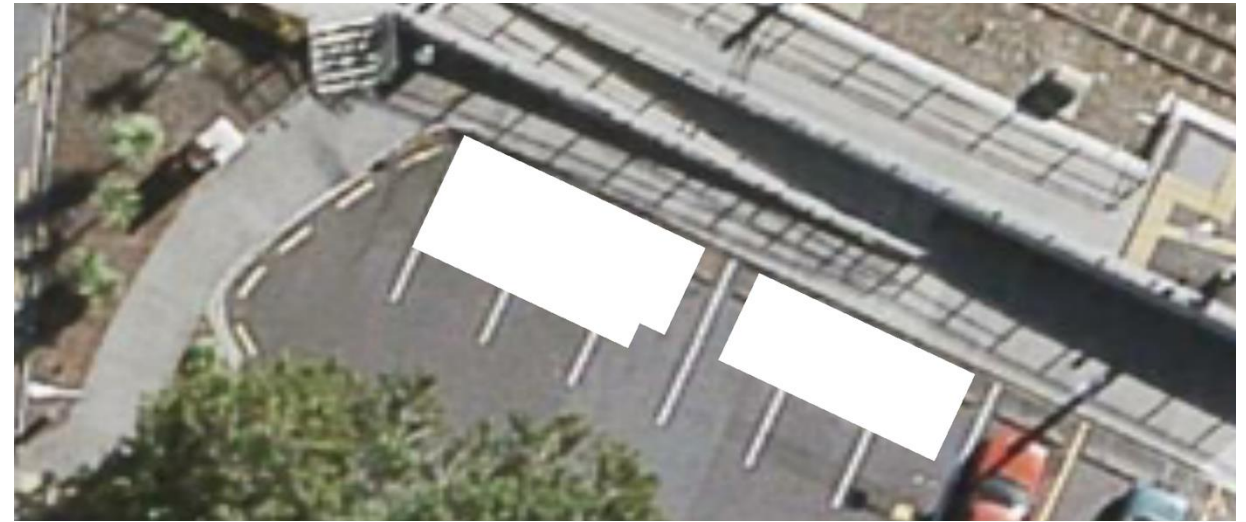
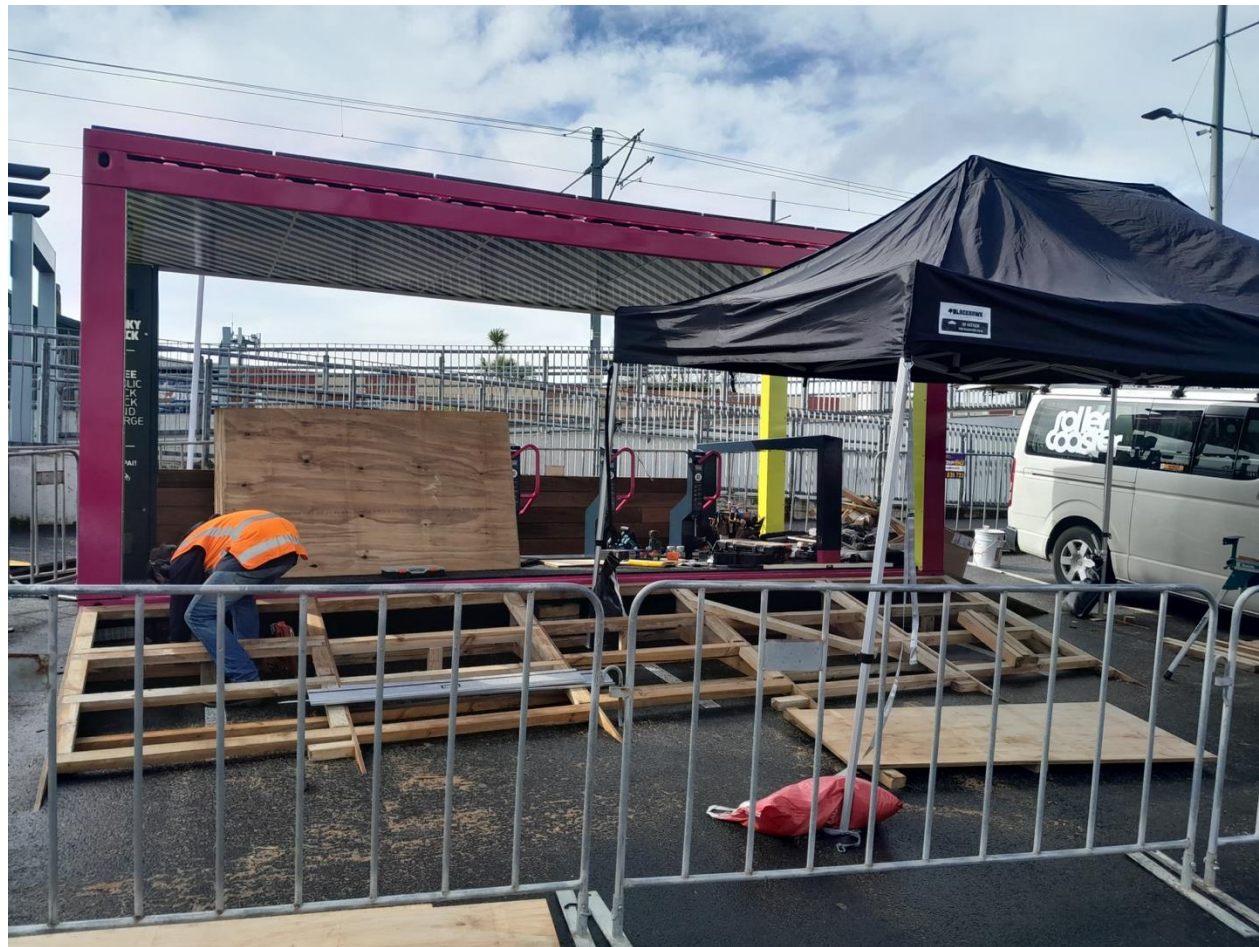
# Active access to transit often fails

- Poor infrastructure in underserved areas
- First/last mile gaps create car dependency
- High costs limit transport choices
- Safety concerns for walking and cycling
- Lack of paths, lighting, and secure bike parking





# Glen Eden Micromobility Hub





Before the Hub





# After the Hub



Waipapa  
Taumata Rau  
University  
of Auckland





# Building isn't enough

*Infrastructure alone isn't enough.*

*Community engagement and centering make the difference.*

- Community events:
  - mural project
  - school workshops
  - learn-to-ride
- Additional support from community grants





# Public Transport Growth Comparison

Measuring the impact of micromobility hub implementation



## ↗ Excess Growth

Bus: **+3.76%**

Train: **+1.81%**

Above network average

## 🧑 Additional Trips

Bus: **+18,755**

Train: **+3,421**

Excess trips generated



## Statistical Significance

**$p < 0.001$**

Results highly significant  
for both modes

330 bikes securely parked | 969 e-scooter trips | 8x increase in facility usage



# Glen Eden Micromobility Hub: Environmental Impact

6-month trial (Nov 2023 - April 2024) • 143 e-scooters • 19,714 km traveled

36.9

Tonnes CO<sub>2</sub>-eq Prevented

(6-month trial period)

73.8

Tonnes CO<sub>2</sub>-eq/year

Annualized impact

0.5 T CO<sub>2</sub>-eq per e-scooter annually

NZ\$5,400

Carbon Credit Potential

Annual revenue (estimated)

\$36

Per E-Scooter/Year

Based on voluntary carbon credit market (US\$50/credit)

## Emissions Reduction Breakdown:

Mode Shift

2.2 T CO<sub>2</sub>-eq

Bus PT Growth

3.8 T CO<sub>2</sub>-eq

Train PT Growth

30.9 T CO<sub>2</sub>-eq (84%)

## Scaling Potential: Auckland-Wide Deployment

6M

Tonnes CO<sub>2</sub>-eq per year

Potential citywide emissions reduction

Based on 4.21 kg CO<sub>2</sub>-eq per capita × Auckland population

## Per Capita Impact

4.21 kg

CO<sub>2</sub>-eq per Glen Eden Resident/Year

- Reduces first/last mile barriers
- Increases PT accessibility
- Supports sustainable transport shift



## Tailor by Demographics

Age, gender, and homeownership affect adoption. One-size-fits-all doesn't work.

## Integration is Key

Micromobility works best when seamlessly connected to public transport.

## Long-term View

Behavior change takes time. Need longitudinal studies to measure true impact.

## Safety for All

Gender gap requires focused research and women-specific safety programs.





# Where do we go from here?

*Micromobility can break down transportation barriers, but works better when designed with community at the centre*

- Expand hub network across Auckland
- Develop demographic-specific programs
- Strengthen community partnerships
- Continue long-term impact research

