PREPARED FOR: AUCKLAND TRANSPORT

MEASURING AND GROWING ACTIVE MODES OF TRANSPORT IN AUCKLAND
MANAGE THE ROADING NETWORK BY MAKING THE RIGHT INVESTMENT AND PROMOTE DECISIONS TO ENCOURAGE BEHAVIOUR CHANGE OF AUCKLANDERS TO ACTIVE MODES OF TRANSPORT.

The overall business objective
The annual Active Modes Survey plays an important role in measuring behaviour change.

In order to drive a change in behaviour, Auckland Transport is developing a deep understanding of the decision-making process around walking and cycling.

The annual Active Modes Survey provides Auckland Transport with the opportunity to measure performance in these key travel modes and track progress over time.

It also provides insight into where investment and promotions should be targeted to provide the strongest return.
AGENDA

01 Measuring progress for Active Modes
02 A deeper understanding of how Aucklanders travel
03 Opportunities to drive behaviour change
04 Bringing it all together
Measuring progress for Active Modes
Using a common framework across the business, we think about moving people up the adoption framework.

**WHAT IS OUR FRAMEWORK FOR BEHAVIOUR CHANGE?**

- **REJECTORS**
  - Those unable to walk/cycle, as well as those who never walk/cycle and wouldn’t consider it

- **CONSIDERERS**
  - Never walk/cycle but would consider it

- **OCCASIONAL**
  - Cycle or walk less than once monthly

- **MEDIUM**
  - Cycle or walk monthly to weekly

- **FREQUENT**
  - Cycle or walk twice a week or more
Aucklanders are bearing witness to a number of significant changes:

- Changing health and expectations
- Increasing cost of living
- Time poor
- Wrestling for control
- Growing population (driven by migration and urbanisation)
- Balancing
And this is coupled with significant city and roading infrastructure developments

- Roading network congestion
- Public transport congestion
- Parking frustrations
- City rail link construction
- Increasing centralization (corporate and residential)
- Premises development
THESE CHANGES REPRESENT A STRONG OPPORTUNITY TO GROW ACTIVE MODES OF TRANSPORT
The proportion of Aucklanders cycling has increased again in 2016

Significant progress has been made in this active mode over the past two years.

### CYCLING BEHAVIOUR (% of Aucklanders)

<table>
<thead>
<tr>
<th>Year</th>
<th>% cycling once a week or more</th>
<th>Total % cycling</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>6%</td>
<td>20%</td>
</tr>
<tr>
<td>2015</td>
<td>11%</td>
<td>27%</td>
</tr>
<tr>
<td>2016</td>
<td>13%</td>
<td>31%</td>
</tr>
</tbody>
</table>

A6. On average, how often do you do each of the following, for any reason? Total sample (n=1,178)
We are seeing some migration through the adoption framework

MORE AUCKLANDERS ARE CYCLING
(up 4 points from 2015)

31% of Aucklanders in 2016
vs 27% in 2015

2016

46% REJECTORS
22% CONSIDERERS
12% OCCASIONAL
13% MEDIUM
6% FREQUENT

2015

47% REJECTORS
26% CONSIDERERS
8% OCCASIONAL
12% MEDIUM
6% FREQUENT

» With more Aucklanders now cycling, there is also an opportunity to get them doing more of the cycling journeys we want them to.
A greater proportion of cyclists are now travelling by bike for key journeys

75%

Within the repertoire of cycling occasions, most Aucklanders are cycling for recreation or fitness.

In 2016 there is an increase in those doing key point-to-point journeys (to/from work, study, public transport or the shops) by bike.

**% of cyclists doing these occasions**

- **To get to/from shops**
  - 2015: 21%
  - 2016: 23%
  - Change: +2pts

- **To go to/from work**
  - 2015: 12%
  - 2016: 13%
  - Change: +1pts

- **To get to/from school, college, university**
  - 2015: 4%
  - 2016: 7%
  - Change: +3pts

- **To get to/from public transport**
  - 2015: 5%
  - 2016: 7%
  - Change: +2pts

*Alignment of codeframe from 2015 to 2016 includes 'Exercise + Fitness' as a separate code*
Beyond an increase in behaviour, we are seeing positive changes in perceptions year on year

Q24. Overall, how do you view the current state of cycling in Auckland? Able bodied (n=1,046)

A5a. In general, how confident are you/would you be in riding a bicycle in the Auckland area? Able bodied (n=1,046)

A26. How strongly do you agree, or disagree, with each of the following statements? Able bodied (n=1,046)
Perceptions of cycling in the city are changing for the better

The work that has been conducted to date around improving cycling infrastructure, and then driving strong awareness of it, is playing a key role in improving perceptions.

As a result, we are seeing greater confidence in cycling and key changes in cycling behaviour; more people are cycling in general, people are cycling more frequently, and more people are doing the key point-to-point journeys we want them to.

Whilst there is still significant work to do, we are moving perceptions and behaviour in the right direction. There is a strong opportunity to continue to build on this momentum at a time when Aucklanders are increasingly looking for alternative transport solutions.
Walking has a different challenge – it’s less about penetration

89% of Aucklanders vs 88% in 2015

10% Rejectors 1% Considerers 4% Occasional 17% Medium 68% Frequent

Nearly everyone is walking to some extent.

The challenge for walking is getting people out of their cars and replacing these trips with walking.

A6. Rejectors (unable or never walk and wouldn’t consider), Considerer (never walk but would consider), Occasional (less than monthly), Medium (monthly to weekly), Frequent (twice a week or more)
We are also seeing more people engaged in walking for point-to-point journeys this year.

The opportunity is to continue to grow the number of people walking for the key point-to-point journeys – and also to increase how frequently they do them.

B3. What types of trips do you walk for? By walks, we mean walks of ten minutes or longer at a time. Walkers (n=1,052)
Auckland has seen incremental growth in active modes of transport year on year

There has been a significant increase in the number of cyclists.

28,000 NEW CYCLISTS DOING POINT-TO-POINT TRIPS

45,600 NEW CYCLISTS OVERALL

11,400 NEW WALKERS OVERALL

108,000 WALKERS NOW DOING POINT-TO-POINT TRIPS

The proportion of people walking at all is steady year on year.

* Population extrapolation based on 2013 Census figures for Auckland’s 15+ population.
A deeper understanding of how Aucklanders travel
Gaining a deeper understanding of Aucklanders’ travel behaviour

This year the survey looks to expand on current knowledge and delve deeper into Aucklanders’ travel behaviour.

SPECIFICALLY:

- What types of journeys have Aucklanders made in the last week?
- How many times did they make those trips in that week?
- And what different travel modes did they use for those trips?
Travel patterns are based on a multitude of journey types and travel modes

### Volume of Trips (all Aucklanders)

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Car</th>
<th>Walking</th>
<th>Bus</th>
<th>Train</th>
<th>Cycling</th>
<th>Motorbike</th>
<th>Ferry</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>To get to/from work</td>
<td>22%</td>
<td>58%</td>
<td>7%</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
<td>100%</td>
</tr>
<tr>
<td>To get to/from shops</td>
<td>20%</td>
<td>28%</td>
<td>7%</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
<td>100%</td>
</tr>
<tr>
<td>To get somewhere else</td>
<td>16%</td>
<td>7%</td>
<td>22%</td>
<td>7%</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>To get to/from visiting friends or family</td>
<td>10%</td>
<td>7%</td>
<td>7%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>100%</td>
</tr>
<tr>
<td>To get to/from public transport</td>
<td>11%</td>
<td>7%</td>
<td>7%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>100%</td>
</tr>
<tr>
<td>As part of my job</td>
<td>8%</td>
<td>7%</td>
<td>7%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>100%</td>
</tr>
<tr>
<td>To get to/from school, college, university</td>
<td>7%</td>
<td>7%</td>
<td>7%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>100%</td>
</tr>
<tr>
<td>To take children to/from school or day-care</td>
<td>7%</td>
<td>7%</td>
<td>7%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>58%</td>
<td>28%</td>
<td>7%</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Q2. Thinking about the past week, how many times did you use each mode of transport when travelling for these occasions? Based on average trips made in past week. Total sample (n=1,178)
A valuable perspective of travel behaviour is gained by looking at trip volume

Top travel modes by trip volume

- Car: 58%
- Walking: 28%
- Cycling: 2%

Top journey types by trip volume

- Work: 22%
- Shopping: 20%

» The key challenge is to reduce pressure on the roading network. This will come from targeting car journeys.

» We will make the biggest difference targeting the journey types that are done most often.

Q2. Thinking about the past week, how many times did you use each mode of transport when travelling for these occasions? Based on average trips made in past week. Total sample (n=1,178)
This provides direction on where to focus by sizing the overall opportunity

**ACROSS TRAVEL OCCASIONS, THERE IS THE OPPORTUNITY TO CONVERT CAR TRIPS TO WALKING AND/OR CYCLING.**

**TWO KEY OPPORTUNITIES ARE IDENTIFIED FOR AUCKLAND TRANSPORT.**

Gaining an understanding of current behaviour in terms of the number of trips travelled helps to identify where the greatest opportunity for conversion may lie.

With the ultimate goal of reducing pressure on the roading network, incremental gains can be made across journey types.
OPPORTUNITY 1 Travelling to/from WORK

- **% AUCKLANDERS:**
  - 59% of Aucklanders travelled this journey

- **On average 5.3 TRIPS trips travelled per week**

- **% TRIPS:**
  - 65% by CAR
  - 15% by WALKING
  - 2% by CYCLING

- **29%** Say that it would be reasonable to cycle, but don’t

- **Just 10%** say that it would be reasonable to walk, but don’t

Cycling represents the greatest potential opportunity for growth in this space.
OPPORTUNITY 2  Travelling to/from SHOPS

- **% AUCKLANDERS:** 81% of Aucklanders travelled this journey
- **On average 4.9 TRIPS** trips travelled per week
- **% TRIPS:** 65% by CAR, 26% by WALKING, 2% by CYCLING

- **38%** say that it would be reasonable to cycle, but don’t
- **24%** say that it would be reasonable to walk, but don’t

The potential opportunity for cycling this journey appears strong. However, we know the barriers to cycling for this journey are also very strong.

This particular journey represents the strongest potential opportunity for walking.
To drive greater adoption of active modes, we now have a place to focus.

**CYCLING**

IS ABOUT THE WORKING OCCASION

**WALKING**

IS ABOUT THE SHOPPING OCCASION
Opportunities to drive behaviour change
What could the opportunity for growth in CYCLING TO/FROM WORK look like?

Aucklanders travel to/from work

- 59% of Aucklanders currently go to/from work but don’t cycle in any given week

- Go to/from work: 673,542
- Impaired/disabled: 45,664
- Currently cycle: 593,629
- Go to/from work but don’t cycle: 34,248
- Are not able to cycle to/from work: 421,477
- Don’t own, or have access to, a bike: 115,342
- Wouldn’t consider cycling: 27,837

We have the potential to get an additional 28,973 people cycling to/from work each week.

*Population extrapolation based on 2013 Census figures for Auckland’s 15+ population.*
There is overwhelming evidence that emotion is the key driver of human behaviour.
What could the opportunity for growth in **WALKING TO/FROM SHOPS** look like?

- **Aucklanders travel to/from the shops**: 81%
- **Go to/from shops**: 924,693
  - **Impaired/disabled**: 79,912
  - **Currently walk**: 376,727
  - **Go to/from shops but don't walk**: 376,777
  - **Are not able to walk to/from shops**: 282,545
  - **Wouldn't consider walking**: 37,673

We have the potential to get an additional **56,509** people walking to/from shops each week.

*Population extrapolation based on 2013 Census figures for Auckland’s 15+ population.*
.04

Bringing it all together
THERE HAS BEENpositive change in perception and behaviour

There have been very positive movements in perceptions of cycling and walking in Auckland, specifically:

- Cycle ways & infrastructure
- Confidence

All resulting in a positive shift in point-to-point journeys, adding

28,000 new cyclists doing point-to-point trips

and

108,000 people walking for these point-to-point journeys
There are two key focus areas which will drive further incremental gains.

- Cycling to work
  - New opportunity: 28,973 people

- Walking for the shopping occasions
  - New opportunity: 56,509 people
THERE ARE TWO CORE JOBS FOR AUCKLAND TRANSPORT TO DO

01 Facilitate the removal of perceived FUNCTIONAL BARRIERS to encourage trial

02 Promoting and reinforcing the EMOTIONAL REWARDS of cycling and walking to work to encourage repeat behaviour
Thanks for reading
## AT Adoption Framework – CYCLING

### HOW OFTEN DO YOU CYCLE?

<table>
<thead>
<tr>
<th>How Often</th>
<th>Never / Virtually never</th>
<th>Occasionally (less than monthly)</th>
<th>Medium (monthly to weekly)</th>
<th>Frequently (two days per week or more)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Which describes your preference?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would like to cycle less/only if I have to</td>
<td>47% Rejector</td>
<td>3% New and Occasional at risk</td>
<td>3% Medium at risk</td>
<td>1% Regular at risk</td>
</tr>
<tr>
<td>Happy with my use of bicycle</td>
<td></td>
<td>3% New and Occasional</td>
<td>5% Medium</td>
<td>3% Regular</td>
</tr>
<tr>
<td>Would like to cycle more</td>
<td>21% Considerer</td>
<td>5% New and Occasional – Opportunity</td>
<td>5% Medium – Opportunity</td>
<td>2% Regular – Opportunity</td>
</tr>
</tbody>
</table>

*Base: Total sample (n=1,178)*
**AT Adoption Framework – WALKING**

<table>
<thead>
<tr>
<th>HOW OFTEN DO YOU WALK FOR 10 MINS OR MORE?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never / Virtually never</td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>Would like to travel this way less/only if I have to</td>
</tr>
<tr>
<td>Happy with my use of this travel mode</td>
</tr>
<tr>
<td>Would like to travel this way more</td>
</tr>
</tbody>
</table>

*Base: Total sample (n=1,178)*
Q24. Overall, how do you view the current state of cycling in Auckland? Able bodied (n=1,046)
A5a. In general, how confident are you/would you be in riding a bicycle in the Auckland area?
Able bodied (n=1,046)
## Attitudes to Cycling Infrastructure

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Auckland has a well connected cycle network</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>16%</td>
<td></td>
<td>16%</td>
<td></td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>2015</td>
<td>26%</td>
<td></td>
<td>20%</td>
<td></td>
<td>27%</td>
<td>8%</td>
</tr>
<tr>
<td>Cycle lanes in Auckland are of good quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>16%</td>
<td></td>
<td>14%</td>
<td></td>
<td></td>
<td>43%</td>
</tr>
<tr>
<td>2015</td>
<td>20%</td>
<td></td>
<td>11%</td>
<td></td>
<td>38%</td>
<td>15%</td>
</tr>
<tr>
<td>Cyclists are sufficiently separated from traffic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>5%</td>
<td></td>
<td>10%</td>
<td></td>
<td></td>
<td>19%</td>
</tr>
<tr>
<td>2015</td>
<td>5%</td>
<td></td>
<td>8%</td>
<td></td>
<td>15%</td>
<td>13%</td>
</tr>
<tr>
<td>There are enough cycle lanes and cycle paths in Auckland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>10%</td>
<td></td>
<td>14%</td>
<td></td>
<td></td>
<td>23%</td>
</tr>
<tr>
<td>2015</td>
<td>14%</td>
<td></td>
<td>11%</td>
<td></td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>A lot is being done to improve cycling in Auckland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>15%</td>
<td></td>
<td>15%</td>
<td></td>
<td></td>
<td>51%</td>
</tr>
</tbody>
</table>

A26. How strongly do you agree, or disagree, with each of the following statements? Able bodied (n=1,046)
### Key Measures – WALKING

#### SAFETY – DAY

<table>
<thead>
<tr>
<th>Year</th>
<th>Don't know</th>
<th>0-4 (Not safe)</th>
<th>5 (Neutral)</th>
<th>6-10 (Safe)</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>7%</td>
<td>6%</td>
<td>86%</td>
<td></td>
<td>8.0</td>
</tr>
<tr>
<td>2015</td>
<td>5%</td>
<td>6%</td>
<td>88%</td>
<td></td>
<td>7.8</td>
</tr>
</tbody>
</table>

#### SAFETY – NIGHT

<table>
<thead>
<tr>
<th>Year</th>
<th>Don't know</th>
<th>0-4 (Not safe)</th>
<th>5 (Neutral)</th>
<th>6-10 (Safe)</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>55%</td>
<td>10%</td>
<td>32%</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>2015</td>
<td>50%</td>
<td>11%</td>
<td>38%</td>
<td></td>
<td>4.3</td>
</tr>
</tbody>
</table>

#### OVERALL STATE OF WALKING

<table>
<thead>
<tr>
<th>Year</th>
<th>Don't know</th>
<th>0-4 (Negative)</th>
<th>5 (Neutral)</th>
<th>6-10 (Positive)</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>5%</td>
<td>15%</td>
<td>16%</td>
<td>64%</td>
<td>6.4</td>
</tr>
</tbody>
</table>

B14/B15 In general, how safe do you feel / would you feel walking during the daytime/night time? 
Able bodied (n=1,046)

Q24. Overall, how do you view the current state of walking in Auckland? (n=1,117)
Emotional Response to Modes of Transport

- Joy: 60% Walking, 26% Cycling, 19% Driving, 12% Public transport
- Contempt: 36% Walking, 26% Cycling, 21% Driving, 25% Public transport
- Surprise: 9% Walking, 4% Cycling, 3% Driving, 4% Public transport
- Sadness: 12% Walking, 8% Cycling, 6% Driving, 4% Public transport
- Disgust: 15% Walking, 14% Cycling, 7% Driving, 3% Public transport
- Fear: 10% Walking, 6% Cycling, 6% Driving, 2% Public transport
- Anger: 5% Walking, 4% Cycling, 4% Driving, 1% Public transport
## Associations with Travel Modes

**IMPLICIT ASSOCIATIONS**

% Endorsement for Yes / No across attributes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Driving</th>
<th>Walking</th>
<th>Cycling</th>
<th>Public Transport</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Social</td>
<td>48%</td>
<td>38%</td>
<td>67%</td>
<td>20%</td>
</tr>
<tr>
<td>Fast</td>
<td>74%</td>
<td>15%</td>
<td>42%</td>
<td>44%</td>
</tr>
<tr>
<td>Convenient</td>
<td>76%</td>
<td>12%</td>
<td>65%</td>
<td>23%</td>
</tr>
<tr>
<td>Enjoyable</td>
<td>67%</td>
<td>21%</td>
<td>78%</td>
<td>13%</td>
</tr>
<tr>
<td>Difficult</td>
<td>32%</td>
<td>49%</td>
<td>23%</td>
<td>60%</td>
</tr>
<tr>
<td>Healthy</td>
<td>37%</td>
<td>47%</td>
<td>82%</td>
<td>9%</td>
</tr>
<tr>
<td>Expensive</td>
<td>60%</td>
<td>25%</td>
<td>17%</td>
<td>69%</td>
</tr>
<tr>
<td>Safe</td>
<td>67%</td>
<td>21%</td>
<td>67%</td>
<td>20%</td>
</tr>
<tr>
<td>Socially responsible</td>
<td>42%</td>
<td>38%</td>
<td>73%</td>
<td>12%</td>
</tr>
<tr>
<td>Brave</td>
<td>44%</td>
<td>40%</td>
<td>47%</td>
<td>37%</td>
</tr>
<tr>
<td>Inconsiderate</td>
<td>27%</td>
<td>51%</td>
<td>16%</td>
<td>65%</td>
</tr>
<tr>
<td>Obstructive</td>
<td>32%</td>
<td>50%</td>
<td>19%</td>
<td>65%</td>
</tr>
</tbody>
</table>

*Base: Total Sample (n=1178)
Table displays % endorsement for each attribute, for each travel mode.*
B21 Thinking about everything you have seen, read or heard about Auckland Transport, what are your overall perceptions of Auckland Transport? Total sample (n=1,178)
34% of Aucklanders have seen, read or heard about Auckland Transport and the activity they are doing around walking and cycling in the city.

What activities are they aware of?

- New cycle lanes: 73%
- New cycle routes: 65%
- Cycling events for families (e.g. bubs on bikes, family bike days): 25%
- The use of e-bikes around Auckland: 21%
- Open Streets Auckland on K’Rd: 20%
- Auckland Transport cycle training courses: 17%
- Bike parking at major events (e.g. Pasifika): 10%

Q16 Have you seen, read or heard anything about Auckland Transport and the activity they are doing around walking and cycling in the city? (n=1,178)
Q17 And what have you seen, read or heard about Auckland Transport? (n=401)