

Life in Medium Density Housing
in Tāmaki Makaurau / Auckland

Appendices



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2 National Policy Statement on Urban Development and Auckland Regional Policy Statement objectives and policies

National Policy Statement on Urban Development (2020)

The National Policy Statement on Urban Development (NPS-UD) requires the Council, among other things, to make decisions that contribute to ‘well-functioning urban environments’. The NPS-UD objectives and policies of particular relevance to this research include (emphasis added):

Objective 1: New Zealand has well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.

Policy 1: Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum:

- (a) have or enable a variety of homes that:
 - (i) meet the needs, in terms of type, price, and location, of different households; and
 - (ii) enable Māori to express their cultural traditions and norms; and
- (b) have or enable a variety of sites that are suitable for different business sectors in terms of location and site size; and
- (c) have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; and
- (d) support, and limit as much as possible adverse impacts on, the competitive operation of land and development markets; and
- (e) support reductions in greenhouse gas emissions; and
- (f) are resilient to the likely current and future effects of climate change.

Regional Policy Statement and Proposed Plan Change 80

As set out in Chapter 2 of this report, changes were proposed to the Auckland Regional Policy Statement (RPS) in response to the NPS-UD directive for “a well-functioning urban environment” as set out in Proposed Plan Change 80 (PC80). A decision on this plan change was released on 30 August 2023,¹ and is currently subject to appeal at the time of writing.²

¹ <https://www.aucklandcouncil.govt.nz/HearingDocuments/pc80-dec-2023-06-13.pdf>

² Beachlands South Limited Partnership v Auckland Council – ENV-2023-AKL000181.

The operative RPS and PC80 RPS objectives and policies relevant to this research are set out below (changes proposed by PC80 are shown in underline):

Chapter B Regional Policy Statement

B2. Tāhuhu whakaruruhau ā-taone – Urban growth and form

B2.1. Issues

Growth needs to be provided for in a way that does all of the following:

(1A) contributes to well-functioning urban environments;

(1B) improves resilience to the effects of climate change.

B2.2.1. Objectives

(1A) A well-functioning urban environment that enables all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.

(1) A well-functioning urban environment with a quality compact urban form that enables all of the following:

- (a) higher-quality urban environment;
- (b) greater productivity and economic growth;
- (c) better use of existing infrastructure and efficient provision of new infrastructure;
- (d) good accessibility for all people, including by improved and more efficient public or active transport;
- (e) greater social and cultural vitality;
- (f) better maintenance of rural character and rural productivity; and
- (g) reduced adverse environmental effects; and
- (h) improved resilience to the effects of climate change.

B2.3. A quality built environment

B2.3.1. Objectives

(1) A well-functioning urban environment with a quality built environment where subdivision, use and development do all of the following:

- (a) respond to the intrinsic qualities and physical characteristics of the site and area, including its setting;
- (b) reinforce the hierarchy of centres and corridors;
- (c) contribute to a diverse mix of choice and opportunity for people and communities;
- (d) maximise resource and infrastructure efficiency;

- (e) are capable of adapting to changing needs; and
- (f) has improved resilience to the effects of climate change.

(2) Innovative design to address environmental effects is encouraged.

(3) The health and safety of people and communities are promoted.

B2.3.2. Policies

(1) Manage the form and design of subdivision, use and development so that it contributes to a well-functioning urban environment and does all of the following:

- (a) supports the planned future environment, including its shape, landform, outlook, location and relationship to its surroundings, including landscape and heritage;
- (b) contributes to the safety of the site, street and neighbourhood;
- (c) develops street networks and block patterns that provide good access and enable a range of travel options;
- (d) achieves a high level of amenity and safety for pedestrians and cyclists;
- (e) meets the functional, and operational needs of the intended use;
- (f) allows for change and enables innovative design and adaptive re-use; and
- (g) improves resilience to the effects of climate change.

(3) Enable a range of built forms to support choice and meet the needs of Auckland's diverse population.

3 Survey invitation letter and reminder postcard

Figure 1: Initial invitation letter (main wave)

10 March 2023

Kia ora, Hello, Talofa lava, Mälô e telei, Ni hāo, Namaste

You, and others in your household, are invited to take part in a survey about your home. The survey will take about 15 minutes to complete.

The purpose of this research is to understand how Aucklanders experience living in their homes. The research findings will help Auckland Council to ensure new housing works well for the needs of different households.

Who can take part?

We invite you and anyone aged 18 or above who has lived in this address for 3 months or more to complete this survey.

Each member of the household should complete the survey on their own, with support if required. Your participation in the survey is voluntary.

What will the survey ask about?

The survey asks about your household (e.g. how many people live in your home), your home (e.g. how many bedrooms are in your home), and your experiences living in your home (e.g. what about your home do you like the most).

How to take part

Scan the QR code

OR

Go to: aklhousingsurvey.co.nz

Your household's unique code: **83DCEFB7**

To thank you for participating, you can enter a prize draw to win one of three \$100 Prezzy cards or a donation to a charity of your choice (terms and conditions apply).

Thank you for your help.

Ngā mihi nui
Jonathan Bengé
Head of Research, Evaluation and Monitoring

Private Bag 92300, Auckland 1142 | aucklandcouncil.govt.nz | Ph 09 301 0101

Why is my household invited?	This invitation has been sent to a random selection of properties built since 2016. These properties were identified using data held by Auckland Council. Your name (associated with the property address) was obtained from the Electoral Roll.
Online surveys don't work for me, can I complete the survey another way?	You can complete a paper copy of the survey and return it to us by post. Email us at housingresearch@aucklandcouncil.govt.nz or call 09 301 0101 to request a paper copy.
Is the survey confidential?	Your participation in the survey is confidential, but not anonymous. This means the researchers analysing the data will know your address and this information will be securely stored.
What will happen with the information I provide?	Your survey responses will be combined and reported alongside other responses. No addresses, names or any other identifiable information will be used in reporting. Your survey responses might be combined with other information about your home such as the property title, unitary plan zone or building consent data.
Where can I see the research report?	The report will be published on the Knowledge Auckland website: www.knowledgeauckland.org.nz The survey will ask if you would like to receive a copy of the report.
I changed my mind and want to withdraw or edit my responses, what do I do?	Email us at housingresearch@aucklandcouncil.govt.nz Your survey responses can be edited, or you can choose to withdraw from the research up to 1 May 2023, after which all survey responses will be combined for analysis.
Does this research comply with the principles of the Privacy Act 2020?	All research by Auckland Council complies with the 13 principles of the Privacy Act 2020. If you have any questions about your privacy, email us at privacy@aucklandcouncil.govt.nz
I have another question, comment or concern about this research	Email us at housingresearch@aucklandcouncil.govt.nz or call 09 301 0101.

Figure 2: Reminder postcard (front).

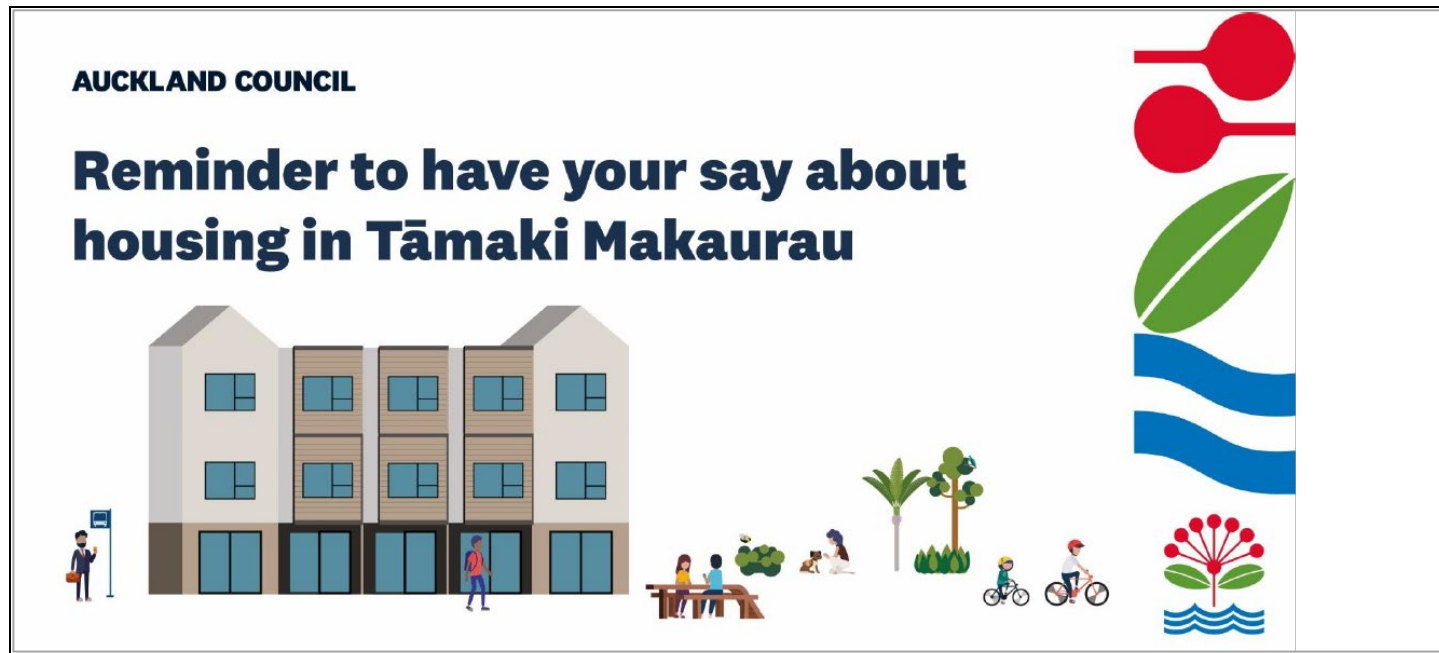
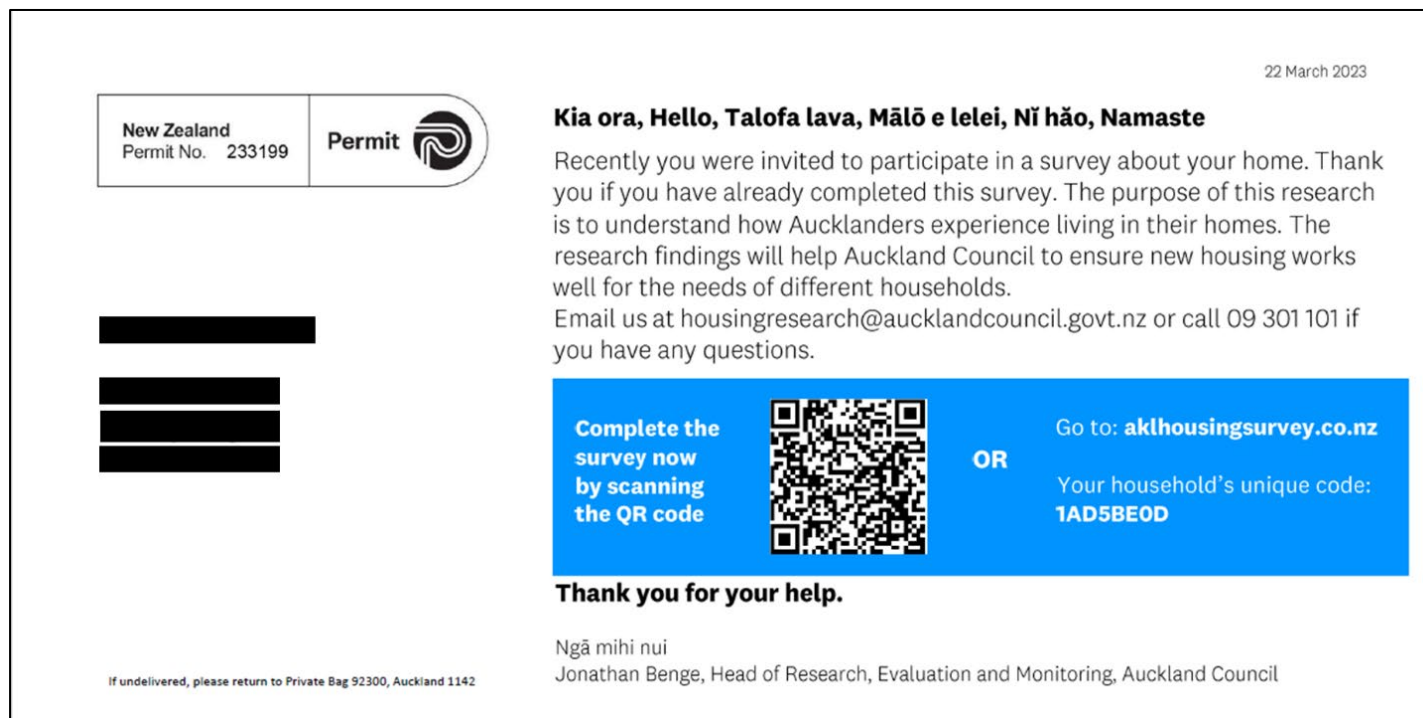


Figure 3: Reminder postcard (back).



4 Survey consent form

At the beginning of the online survey, participants were required to consent to the following by clicking the ‘select to confirm’ buttons. All statements required consent for the participant to continue through the survey.



Kia ora, Hello, Talofa lava, Mālō e lelei, Nǐ hǎo, Namaste

Thank you for taking part in this survey about your home.

The purpose of this research is to understand how Aucklanders experience living in their homes. The research findings will help Auckland Council to ensure new housing works well for different Auckland households.

We invite you and anyone aged 18 or above who has lived in this address for 3 months or more to complete this survey. Each member of your household should complete the survey on their own, with support if required.

The survey will take about 15 minutes to complete.

If you have any questions, get in touch with us at housingresearch@aucklandcouncil.govt.nz

Before we can get started, we need to confirm that you know:

Your participation in the survey is voluntary.

Select to confirm

Your participation in the survey is confidential, but not anonymous. This means the researchers analysing the data will know your address and this information will be securely stored.

Select to confirm

Your survey responses might be combined with other information about your home such as the property title, unitary plan zone or building consent data.

Select to confirm

Your survey responses will be combined and reported alongside other responses. No addresses, names or any other identifiable information will be used in reporting.

Select to confirm

Your survey responses can be edited, or you can choose to withdraw from the research up to 1 May 2023, after which all survey responses will be combined for analysis.

Select to confirm

5 Survey questionnaire

Landing page

Kia ora, Hello, Talofa lava, Mālō e lelei, Nǐ hǎo, Namaste

Thank you for taking part in this survey about your home.

The purpose of this research is to understand how Aucklanders are experiencing living in their homes. The research findings will help Auckland Council to ensure housing being developed works well for different Auckland households.

We invite you and anyone aged 18 or above who has lived in this address for 3 months or more to complete this survey. Each member of your household should complete the survey on their own, with support if required.

The survey will take about 15 minutes to complete.

If you have any questions, get in touch with us at [\[email address\]](#)

Before getting started, we need to confirm that you know:

- Your participation in the survey is voluntary.
- Your participation in the survey is confidential, but not anonymous. This means the researchers analysing the data will know your address and this information will be securely stored.
- Your survey responses will be combined and reported alongside other responses. No addresses, names or any other identifiable information will be used in reporting.
- Your survey responses might be combined with other information about your home such as the property title, unitary plan zone or building consent data.
- Your survey response can be edited, or you can choose to withdraw from the research up to 1 March 2023, after which survey responses will be combined with others for analysis.

Enter your access code in the box below. You will find the code on your invitation letter. Everyone who lives at your home can use the same access code.

Great! That access code is for the home at [address]. Is this where you are currently living? (single response only)

1	Yes I currently live here
2	No I don't currently live here
3	No, but I have previously lived here
4	Prefer not to say

If response above was option 1 or 4, continue to Q1 and start survey.




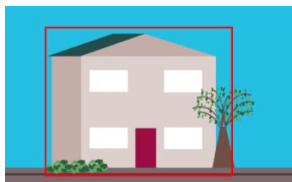
If response above was option 2 or 3, thanks and end survey.

Q1: How long have you lived in your home?

1	3 months or less
2	4-12 months
3	1-2 years
4	3-4 years
5	5-6 years
6	7 years or more

If response above was option 1 or 6, thanks and end survey.
All other responses, continue to Q2.

Q2: Which of the following best describes your home?

1	Apartment <i>Homes are stacked on top of one another</i>	
2	Terraced house or townhouse <i>Homes are connected vertically</i>	
3	Duplex (semi-detached) <i>Home is connected to one other home</i>	
4	Standalone house (detached) <i>Not connected to other homes</i>	
5	Something else, please specify (open ended response)	

Q3: Who owns the home you live in?

1	I personally or jointly own it (with or without a mortgage)
2	A family trust owns it
3	Parents/other family members or partner own it
4	A private landlord who is NOT related to me owns it
5	Auckland Council, Kāinga Ora or another State landlord (such as Ministry of Education) owns it
6	A social service agency or community housing provider (e.g. the Salvation Army, New Zealand Housing Foundation) owns it
98	I don't know who owns it

If response above was option 5, thanks and end survey.
All other responses, continue to Q4.

Your complex/building

Question asked if response to Q2 was 2, 3 or 4:

Q4 Which of these most sounds like your home?

1	Your home might be part of a complex of other homes with some shared facilities such as driveways/footpaths, rubbish collection, or outdoor living areas. If this sounds like your home, the following questions are about the wider complex in which you live. My home is part of a complex
2	Your home might <u>only</u> share a driveway/footpath or not share any facilities with your neighbours. If this sounds like your home, the following questions are about your standalone house or the row of terraced houses/duplex that includes your home. My home is NOT part of a complex

Wording shown if response to Q2 was 1 'apartment':

Your private apartment is in a building with other private apartments. You might share facilities with others in your building such as hallways, garaging or rubbish collection. Your apartment building might be one of several apartment buildings that share facilities as part of a bigger complex. The following questions are about your apartment building or complex that you share with your neighbours.

Wording shown if response to Q2 was 5 'Something else':

Depending on the type of home you live in, this first series of questions ask about different things.

If you live in an apartment, these questions are about the building or complex you share with your neighbours.

Or

Your home might be part of a complex of other homes with some shared facilities such as driveways/footpaths, rubbish collection, or outdoor living areas. If this sounds like your home, the following questions are about wider complex in which you live.

Or

Your home might only share a driveway/footpath or not share any facilities with your neighbours. If this sounds like your home, the following questions are about your standalone house or the row of terraced houses/duplex that includes your home.

Q5: How satisfied are you with having the following facilities as part of your building/complex that you share with your neighbours? (multi-choice)

(This question was asked of all except if answer to Q2 was 2, 3 or 4 and answer to Q4 was 2 – e.g. stated that they lived in a terraced house, duplex or standalone house that was NOT part of a complex.)

1	Shared lounge or indoor living space
2	Shared patio, deck, garden, grass space or other outdoor living space/green space
3	Gym, swimming pool, tennis court or exercise space
4	Shared vehicles (e.g. CityHop cars, e-scooters or bikes (e.g. JUMP, Lime))
5*	Meeting room or workspace
6	Sustainable living facilities (e.g. rainwater harvesting, solar panels, EV charging station, composting)

*Option 5 above only asked if participant lived in apartment.

Scale used

1	Very dissatisfied
2	Somewhat dissatisfied
3	Neither satisfied nor dissatisfied
4	Somewhat satisfied
5	Very satisfied
98	I don't have this shared facility/I don't know

Q6: Which of the following best describes the shared vehicles part of your building/complex? (multi-choice)

(This question was asked only if the answer to Q5 included 4)

1	CityHop or other ride share cars
2	Cars jointly owned by residents
3	Lime, JUMP or other e-scooter or bike sharing system
4	E-Scooters or bikes owned by residents
5	Something else; please describe (open ended response)

Q7: Thinking about your building/complex, how satisfied are you with the following?

(This question was asked of all except if answer to Q2 was 2, 3 or 4 and answer to Q4 was 2 – e.g. stated that they lived in a terraced house, duplex or standalone house that was NOT part of a complex.)

1	Ability for visitors to find their way inside the building/complex
2	Lighting around your building/complex (e.g. footpaths, driveways, carparks or rubbish bin storage areas)
3	Ability for couriers and postal workers to deliver items
4	Ability for visitors and tradespeople to enter your building/complex (e.g. through security gate, swipe access door)
5	Maintenance of outdoor footpaths and driveways within your complex

Scale used

1	Very dissatisfied
2	Somewhat dissatisfied
3	Neither satisfied nor dissatisfied
4	Somewhat satisfied
5	Very satisfied
98	Not applicable/I don't know

Q8: How is the maintenance of your complex or building managed, including driveways and footpaths? (Maintenance might include building washing, painting external walls, gardens, rubbish collection or repairing driveway surfaces) (multi-choice)

(Note: This question wording was asked of all except if answer to Q2 was 2, 3 or 4 and answer to Q4 was 2 – e.g. stated that they lived in a terraced house, duplex or standalone house that was NOT part of a complex. For those respondents, the question wording was slightly different: **How is the maintenance of your row of terraced houses/duplex or standalone house managed, including driveways and footpaths? (Maintenance might include building washing, painting external walls, or repairing driveway surfaces)**)

1	By a body corporate
2	By a residents association or society
3	By me/others in my household*
4	By my landlord
5	Something else; please specify (open ended response)
6	I don't know

*If response above was option 3, participants skipped Q9 and went straight to Q10. All other responses continued to Q9.

Q9: How satisfied are you with how your complex or building is managed, including driveways and footpaths? (Maintenance might include building washing, painting external walls, gardens, rubbish collection or repairing driveway surfaces)

Note: This question wording was asked of all except if answer to Q2 was 2, 3 or 4 and answer to Q4 was 2 – e.g. stated that they lived in a terraced house, duplex or standalone house that was NOT part of a

complex. For those respondents the question wording was: **How satisfied are you with how your row of terraced houses/duplex or standalone house is managed, including driveways and footpaths? (Maintenance might include building washing, painting external walls, or repairing driveway surfaces)**

Scale used

1	Very dissatisfied
2	Somewhat dissatisfied
3	Neither satisfied nor dissatisfied
4	Somewhat satisfied
5	Very satisfied
98	I don't know

Q10: How is waste such as rubbish, recycling and composting collected? (multi-choice)

1	Bin room/space shared with my neighbours. Collection by a private company (e.g. Green Gorilla, Rubbish Direct)
2	Auckland Council kerbside collection
3	Something else; please specify
4	I don't know*

*Answer option 4 was single response.

Q11: How safe do you feel in and around your building/complex from traffic accidents (involving vehicles and/or pedestrians)?

(Note: This question wording was asked of all except if Q2 was 2, 3 or 4 and answer to Q4 was 2 – e.g. stated that they lived in a terraced house, duplex or standalone house that was NOT part of a complex.)

1	Very unsafe
2	A little unsafe
3	Pretty unsafe
4	Very safe
5	Not applicable; e.g. no carparking, driveways in my building/complex

Q12: How safe do you feel in and around your building/complex from ... ?

(Note: This question wording was asked of all except if answer to Q2 was 2, 3 or 4 and answer to Q4 was 2 – e.g. stated that they lived in a terraced house, duplex or standalone house that was NOT part of a complex.)

1	Assault, harassment or theft when moving through your building/complex
2	Assault, harassment or theft when inside your home/apartment*
3	Trips, slips or falls in spaces shared with your neighbours
4	Theft or vandalism of mail and other deliverables

*Wording used varied for typology of home lived in.

Life in Medium Density Housing in Tāmaki Makaurau / Auckland

Scale used

1	Very unsafe
2	A little unsafe
3	Pretty unsafe
4	Very safe

Q13: How safe do you feel in and around your building/complex from ... ?

(Note: This question wording was asked of all except if answer to Q2 was 2, 3 or 4 and answer to Q4 was 2 – e.g. stated that they lived in a terraced house, duplex or standalone house that was NOT part of a complex.)

1	Assault, harassment or theft when moving through your building/complex
2	Assault, harassment or theft when inside your home/apartment*
3	Trips, slips or falls in spaces shared with your neighbours
4	Theft or vandalism of mail and other deliverables

*Wording used varied for typology of home lived in.

Scale used

1	Very unsafe
2	A little unsafe
3	Pretty unsafe
4	Very safe

Q14: Which of the following features of your home, building or complex make you feel more or less safe?

(Note: The following three questions were asked of all respondents.)

1	Being able to see people at your front door (e.g. through a peephole or window at front of your home)
2	Windows overlooking footpaths, driveways or common areas
3	Having a sense of community within your complex/building/row of terraced houses/with your neighbours

(Note: The following questions were asked of all except if answer to Q2 was 2, 3 or 4 and answer to Q4 was 2 – e.g. stated that they lived in a terraced house, duplex or standalone house that was NOT part of a complex.)

4	Amount of lighting along footpaths, hallways, driveways, carparks and other shared areas
5	Video or audio intercom
6	Building/complex access (e.g. swipe card, pin, security gates, intercom)

Scale used

1	Makes me feel more safe
2	No impact on how safe I feel
3	Makes me feel less safe
98	I don't know
96	This is not part of my home

Your home

The next set of questions are about your home.

If you live in an apartment building, your 'home' for these questions is your private apartment within the apartment building.

If you live in a terraced house/townhouse, duplex or standalone house, your 'home' includes any private outdoor space as well as inside your building.

Q15: Which of the following rooms or spaces are part of your home? (multi-choice)

1	Main bedroom
2	Second bedroom
3	Third bedroom
4	Fourth bedroom
5	Fifth bedroom
6	Main indoor living space (in an open plan home, this might include a lounge, dining and kitchen)
7	Second indoor living space or flexi room
8	Third indoor living space or flexi room
9	Large cupboard or indoor storage space - large enough to fit a bike (e.g. attic, under stairs)
10	Study nook or other hallway space
11	Private garage only accessible by your household

Q16: How well do the number of rooms and spaces in your home meet the needs of your household?

1	Number of bedrooms
2	Number of bathrooms
3	Number of living spaces (e.g. lounge, dining room, playroom, family room, office/study, media room) (If your home has an open plan kitchen/dining/lounge this counts as 1 living space)
4	Number of outdoor living spaces (e.g. balcony, patio, garden)
5	Number of carparks

Scale used

1	Does not meet needs at all
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2	Somewhat meets needs
3	Meets needs
4	More than meets needs
99	Not applicable, I don't have this space in my home

Q17: How well does the size of rooms and spaces in your home meet the needs of your household?

1	Size of bedrooms
2	Size of kitchen (including amount of bench space)
3	Size of lounge or living room
4	Size of dining room/ space for a dining table
5	Size of any additional living spaces (e.g. playroom, office/study)*
6	Size of outdoor living spaces (e.g. balcony, patio, garden)**

* Option 5 above only asked if answer to Q15 include 7 or 8.

** Option 6 above only asked if answer to Q16 was option 1, 2, 3 or 4.

Scale used

1	Does not meet needs at all
2	Somewhat meets needs
3	Meets needs
4	More than meets needs
99	Not applicable, I don't have this space in my home

Room uses

In our homes, rooms can be used for different purposes. A room might be used as a guest bedroom sometimes and other times be a study, playroom, or craft room.

Q18: How are the rooms and spaces used in your home?

Select all the options that apply.

Use the arrow button to the right of the room/spaces to select uses for different rooms/spaces.

1	Main bedroom
2	Second bedroom
3	Third bedroom
4	Fourth bedroom
5	Fifth bedroom
6	Main indoor living space
7	Second indoor living space
8	Third indoor living space
9	Large cupboard or indoor storage space
10	Study nook or other hallway space
11	Private garage only accessible by your household

Note: Options displayed were dependent on answer to Q15. E.g. if participants answered Q15 by selecting 1, 2 and 6, this question displayed ‘main bedroom’, ‘second bedroom’ and ‘main indoor living space’.

Options (could choose more than one for each room/space)

1	Bedroom for 1 person
2	Bedroom for 2 people
3	Bedroom for 3 or more people
4	Guest bedroom
5	Lounge/living room
6	Dining
7	Cooking space
8	Playroom
9	Study/office
10	Craft, game or hobby
11	Prayer room
12	Gym or fitness
13	Storage
14	Something else; please describe (open ended response)

Outdoor living

Q19: Which of the following outdoor living areas are part of your home? (multi-choice)

(Note: This question was asked if answer to Q16, Option 4 was 1, 2, 3 or 4 – e.g. indicated that they had outdoor living spaces).

1	Living space at ground level (e.g. deck, patio, garden)
2	Living space above ground level (e.g. deck or balcony)
3	Rooftop garden or other rooftop space

Q20: How satisfied are you with the following for your outdoor living space at ground level; e.g. deck, patio, balcony?

(Note: Wording of this question was dependent on response to Q19. If participants selected option 2, the question was: ‘How satisfied are you with the following for your outdoor living space above ground level; e.g. deck or balcony?’ Similarly, if participants selected option 3, the question was: ‘How satisfied are you with the following for your rooftop garden or other rooftop space?’ If participants indicating having multiple outdoor living spaces, this question was asked for each of the spaces in their home.)

1	Connection to indoor living spaces
2	Sunlight
3	Ease of undertaking maintenance (e.g. gardening, cleaning, lawnmowing)
4	Amount of space or plants (e.g. pot plants, trees, vegetable garden, vertical garden)

Scale used

1	Very dissatisfied
2	Somewhat dissatisfied
3	Neither satisfied nor dissatisfied
4	Somewhat satisfied
5	Very satisfied
98	Not applicable/I don't know

Site facilities

Q21: What impact, if any, does the location of these facilities have on your outdoor living spaces?(Thinking about heat, noise, taking up space and general enjoyment of the space.)

(Note: These questions were asked if answer to Q2 was 2, 3, 4 or 5 and answer to Q16, Option 4 was 1, 2, 3 or 4 – e.g. did not live in an apartment, and indicated that they had outdoor living spaces.)

1	Garden storage shed
2	External heat pump unit
3	Hot water or gas cylinder
4	Rainwater tank
5	Wheelie or large rubbish and recycling bins
6	Outdoor washing line

Q21a: What impact, if any, does the location of your external heat pump unit have on your private outdoor living space(s)? (Thinking about noise, heat, taking up space, and general enjoyment of the space.)

(Note: This question was asked of all whose answer to Q2 was 1 and Q16, Option 4 was 1, 2, 3 or 4 – e.g. they live in an apartment and indicated that they had outdoor living spaces.)

Scale used for Q21 and Q21a

1	No impact at all
2	Minor impact
3	Moderate impact
4	Major impact
5	I don't have this facility in my home

Q22: How satisfied are you with the laundry facilities in your home, building or complex? (Laundry facilities might include washing machine, laundry sink, or space for drying washing including consideration of any body corporate/residents association rules.)

Scale used

1	Very dissatisfied
2	Somewhat dissatisfied
3	Neither satisfied nor dissatisfied
4	Somewhat satisfied

5	Very satisfied
---	----------------

Environment

Q23: How satisfied are you with the following?

Please rate each of the following:

1	Temperature inside your home in summer
2	Temperature inside your home in winter
3	Shade in and around your home
4	Airflow through your home (e.g. through windows, doors, ventilation system)
5	Humidity (i.e. dryness/dampness inside your home)

Scale used

1	Very dissatisfied
2	Somewhat dissatisfied
3	Neither satisfied nor dissatisfied
4	Somewhat satisfied
5	Very satisfied
98	I don't know

Privacy

Q24: Thinking about the aspects below, how satisfied are you with privacy of your home?

Please rate each of the following:

1	Privacy inside your home
2	Privacy in outdoor living areas e.g. deck, patio, balcony
3	Sound proofing on walls shared with your neighbours
4	Sound in outdoor living areas

Scale used

1	Very dissatisfied
2	Somewhat dissatisfied
3	Neither satisfied nor dissatisfied
4	Somewhat satisfied
5	Very satisfied

Internal storage

Q25: How would you rate the built-in storage for the following items in your home? (Built-in storage refers to the cupboards, shelving or other storage facilities that are fixed into your home. If you live in an apartment, you might have a storage unit in a shared area (e.g. garage). Consider the items stored in this space when answering this question.)

Please rate each of the following:

1	Clothing and shoes
2	Linen (e.g. sheets, towels, blankets)
3	Kitchen storage for food and equipment (e.g. pots, appliances, microwave)
4	Household equipment (e.g. vacuum cleaner, lawnmower, airing rack, ironing board)
5	Hobby/sport equipment (e.g. sewing machine, golf clubs, collectables, guitar)
6	Occasional use items (e.g. suitcases, Christmas tree)
7	Young children's items (e.g. pram, car seat, highchair, toys)

Scale used

1	No built-in storage for this kind of item
2	Not enough storage
3	Only just enough storage
4	Enough storage
5	More than enough storage
6	I don't have this kind of item

Modifications

Q26: Since you moved into your home, have you made any changes? (This includes temporary changes like storage furniture (e.g. bookcases, drawers) or privacy screens.) (multi-choice)

1	Increased storage (e.g. chest of drawers, cupboard shelving)
2	Improved privacy (e.g. screens fencing, planting)
3	Improved temperature (e.g. heat pump, window coverings)
4	Permanently repurposed a room (e.g. using a living space as a bedroom)
5	Changes to the kitchen (e.g. island bench, storage cabinet)
6	Improved accessibility (e.g. grab rails, level access shower)
7	Changes to something else; please specify (open ended response)
8	Intend to make changes or to make further changes
9	No changes and no intention to make changes*

*Option 9 was exclusive: if people chose this, they could not choose any others.

Vehicles

Q27: Which of the following types of vehicles are owned by yourself or others in your household? (excluding any vehicles shared with your neighbour's e.g. CityHop cars) (multi-choice)

1	Petrol, diesel or hybrid car
2	Plug-in electric car
3	Adult pushbike, e-bike or scooter
4	Child bike or scooter
5	Motor bike or moped/scooter
6	Trailer boat or campervan
7	Mobility scooter
8	None of the above*

*Option 8 was exclusive: if people chose this, they could not choose any others. If participants chose option 8 they skipped to Q31.

Q28: How many of these vehicles are owned by yourself or others in your household?

(Note: These options were displayed in turn if the participant had previously selected any of the options 1 to 7 in Q27.)

1	Petrol, diesel or hybrid car
2	Plug-in electric car
3	Adult pushbike, e-bike or scooter
4	Child bike or scooter
5	Motor bike or moped/scooter
6	Trailer boat or campervan
7	Mobility scooter

Scale used

1	1
2	2
3	3
4	4
5	5
6	6 or more

Q29: Where do you store the following at your home? (If you have more than one of these vehicles and store these in different places, please list the different places in your response.)

(Note: These options were displayed in turn if participant had previously selected any of the options 1 to 7 in Q27. An open ended response field was displayed next to each option).

1	Petrol, diesel or hybrid car
2	Plug-in electric car
3	Adult pushbike, e-bike or scooter
4	Child bike or scooter
5	Motor bike or moped/scooter
6	Trailer boat or campervan
7	Mobility scooter

Q30: Thinking about protection from the elements, security from theft or vandalism, proximity to your home or access to charging for electric vehicles, how satisfied are you with how you store your vehicles?

(Note: These options were displayed in turn if participant had previously selected any of the options 1 to 7 in Q27).

1	Petrol, diesel or hybrid car
2	Plug-in electric car
3	Adult pushbike, e-bike or scooter
4	Child bike or scooter
5	Motor bike or moped/scooter
6	Trailer boat or campervan
7	Mobility scooter

Scale used

1	Very dissatisfied
2	Somewhat dissatisfied
3	Neither satisfied or dissatisfied
4	Somewhat satisfied
5	Very satisfied

Living in your home overall

Q31: How important is being able to do the following activities in your home?

1	Hobbies (e.g. craft, music, DIY, gardening)
2	Having friends or whānau visit or hosting parties
3	Having visitors stay overnight
4	Spending time with others in my household (e.g. playing games, having a meal together)
5	Working from home
6	Prayer or other spiritual activity
7	Physical activity (e.g. throwing a ball, yoga, children running around)
8	Having your own space or space to be alone
9	Cooking a meal or baking, including BBQ/outdoor cooking
10	Spending time or playing with pets

Scale used

1	Very unimportant
2	Somewhat unimportant
3	Neither important nor unimportant
4	Somewhat important
5	Very important
98	I don't know

Q32: Are you able to do the following activities in your home comfortably?

(Note: Participants were only asked to rate options if they had rated any of them 4 or 5 in Q31.)

1	Hobbies (e.g. craft, music, DIY, gardening)
2	Having friends or whānau visit or hosting parties
3	Having visitors stay overnight
4	Spending time with others in my household (e.g. playing games, having a meal together)
5	Working from home
6	Prayer or other spiritual activity
7	Physical activity (e.g. throwing a ball, yoga, children running around)
8	Having your own space or space to be alone
9	Cooking a meal or baking, including BBQ/outdoor cooking
10	Spending time or playing with pets

Scale used

1	Very uncomfortably
2	Somewhat uncomfortably
3	Neither comfortably nor uncomfortably
4	Somewhat comfortably
5	Very comfortably
98	I don't know

Q33: What about your home makes it uncomfortable to do some of the activities that are important to you? (Open ended response)

(Note: this question was asked if participants rated at least one activity in Q32 as 1 or 2.)

Q34: What about your home makes it comfortable to do some of the activities that are important to you? (Open ended response)

(Note: this question was asked if participants rated at least one activity in Q32 as 4 or 5.)

Q35: Thinking about your home, including your building/complex, overall how satisfied are you living there?

Scale used

1	Very dissatisfied
2	Somewhat dissatisfied
3	Neither satisfied nor dissatisfied
4	Somewhat satisfied
5	Very satisfied

Q36: What about your home, including your building/complex, do you like the most? (Open ended response)

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Q37: What about your home, including your building/complex, do you like the least? (Open ended response)

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Your household

Q38: Who lives in your household? (Your household includes the people and animals who usually live in your home. By ‘your children’, we mean children for whom you are one of the people who has primary responsibility for that child’s care and welfare) (multi-choice)

1	Your parent(s)
2	Your partner/spouse
3	Your pre-school aged child(ren)
4	Our primary school aged child(ren)
5	Your secondary school aged child(ren)
6	Your adult child(ren)
7	Other child(ren) (e.g. grandchild, sibling, cousin)
8	Other adult(s) related to you (e.g. grandparent, cousin)
9	Other adult(s) unrelated to you (e.g. flatmate, boarder)
10	Pets (e.g. cat, dog, rabbit)
11	None of these; I live alone*
12	Prefer not to say*

* Option 11 and 12 were exclusive: if people chose either of these, they could not choose any others.

Q39: Including yourself, how many adults usually live in your household?

(Note: question skipped if answer to Q38 was 11.)

1	1
2	2
3	3
4	4
5	5
6	6
7	7 or more

Q39a: How many children usually live in your household?

(Note: question displayed if answer to Q38 was 3, 4, 5 or 7.)

1	1
2	2
3	3
4	4
5	5
6	6
7	7 or more

Q40: Do you, or someone in your household, have a disability, long-term condition or mental health condition that affects your/their ability to carry out everyday activities?

1	Yes
2	No
3	Prefer not to say

Q41: Which of the following describes your household's annual income before tax?

1	Less than \$20,000 (approx \$380 per week)
2	\$20,001-\$40,000 (approx \$381-\$770 per week)
3	\$40,001-\$60,000 (approx \$771-\$1,150 per week)
4	\$60,001-\$80,000 (approx \$1,151-\$1,540 per week)
5	\$80,001-\$100,000 (approx \$1,541-\$1,900 per week)
6	\$100,001-\$150,000 (approx \$1,901-\$2,890 per week)
7	\$150,001-\$200,000 (approx \$2,891-\$3,850 per week)
8	\$200,001-\$250,000 (approx \$3,851-\$4,800 per week)
9	\$250,001-\$300,000 (approx \$4,801-\$5,770 per week)
10	\$300,001 or over (over approx \$5,771 per week)
98	I don't know
99	Prefer not to say

Demographics

Q42: What is your age?

1	18-24 years
2	25-29 years
3	30-34 years
4	35-39 years
5	40-44 years
6	45-49 years
7	50-54 years
8	55-59 years
9	60-64 years
10	65-69 years
11	70-74 years
12	75-79 years
13	80+ years
99	Prefer not to say

Q43: What is your gender?

1	Male
2	Female
3	Another gender; please specify (open ended response)
99	Prefer not to say

Q44: Which of the following ethnic group(s) do you belong to? (multiple choice)

1	Pākehā/NZ European
2	Māori
3	Samoan
4	Cook Islands Māori
5	Tongan
6	Niuean
7	Tokelauan
8	Fijian
9	Chinese
10	Indian
11	Other; please specify (open ended response)
99	Prefer not to say

Wrap up

Q45: Would you be interested in participating in further research in early 2023 about you and your household's experience of living in your home? (A koha will be offered to all households who participate in further research.)

1	Yes
2	No

Q46: Would you like to be emailed a copy of the report for this project?

1	Yes
2	No

Q47: Would you like to enter the prize draw to win one of three \$100 Prezzy cards or a donation to a charity of your choice? The prize will be drawn and winners notified at the end of March 2023. Terms and conditions apply (open the T&Cs link in a new tab to avoid losing your place in the survey.)

1	Yes
2	No

Q48: Please provide your contact details. Your contact details will be used for the purposes to which you have agreed (i.e. further research, receiving the report or the prize draw) and will not be provided to any third parties.

Question asked if response to Q46 was 1 (yes) or Q47 was 1 (yes).

--

Thank you for participating in this survey!

END

6 Standalone houses excluded from sample

A small proportion of participants living in standalone houses completed the survey (n=94). The responses from these participants have been excluded from the sample used in this report. The decision to exclude these from the sample was informed by looking at each property on Google Street View to assess if these homes would be classified by the study team as standalone houses. Auckland Council rating data was also used to determine housing typology when Google Street View imagery was ambiguous; for example, buildings with a ground level ‘granny flat’ and a primary dwelling on the first level. Participant classification of their home as being ‘standalone’ or otherwise out of scope (e.g. ‘granny flat’, multi-unit buildings) aligned with our assessment, except for one home that was re-classified as an apartment and included in the sample.

Most of the standalone homes were not functionally dissimilar to terraced house and duplexes included in the study in so far as the space between buildings was small, multiple dwellings shared a site, and the footprint of buildings was a similar size and shape. The standalone houses typically were in a row facing the street (see Figure 4) or in a row facing a shared driveway.

Figure 4: Standalone medium density housing with shared rear accessway



The other typical site layout had two standalone houses facing the street (in a ‘sentinel’ formation) and a shared driveway between them that leads to other homes at the back of the site (see Figure 5).

Figure 5: ‘Sentinel’ standalone homes



7 Survey sample characteristics

This section presents charts displaying characteristics of the survey participants and their household/home. Some participants did not complete the survey demographic questions and so the base for some charts is less than the total participant sample of 1337, or the total household/property sample of 1243.

Figure 6: Participant age (n=1292) (%)

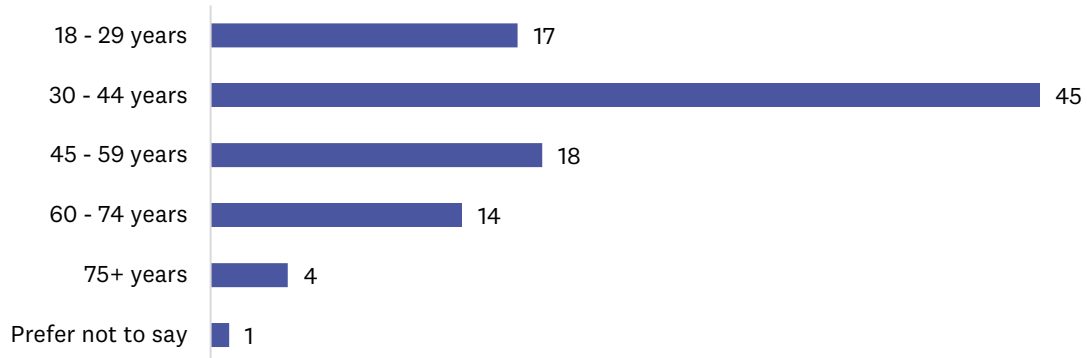
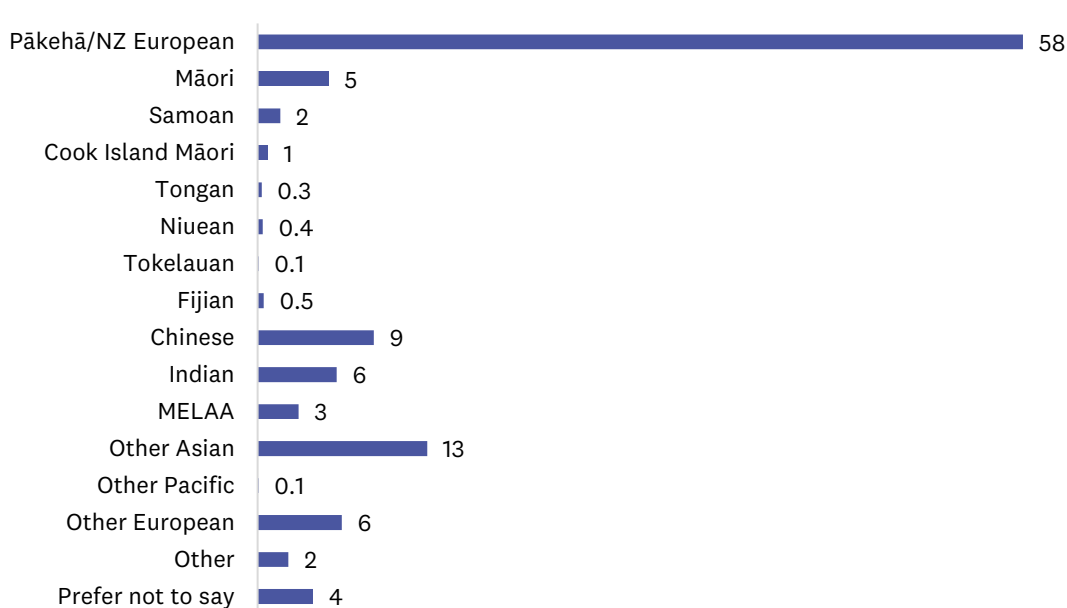


Figure 7: Participant gender (n=1291) (%)



Note: Six participants answered as ‘another gender’, which is less than 1 per cent of the sample and so is not shown on the chart.

Figure 8: Participant ethnicity (n=1281) (%)



Note: Multiple responses allowed; therefore, total does not sum to 100.

Figure 9: Do you, or someone else in your household, have a disability, long-term condition, or mental health condition that affects your/their ability to carry out everyday activities? (n=1206) (%)



Figure 10: Household income (n=1293) (%)

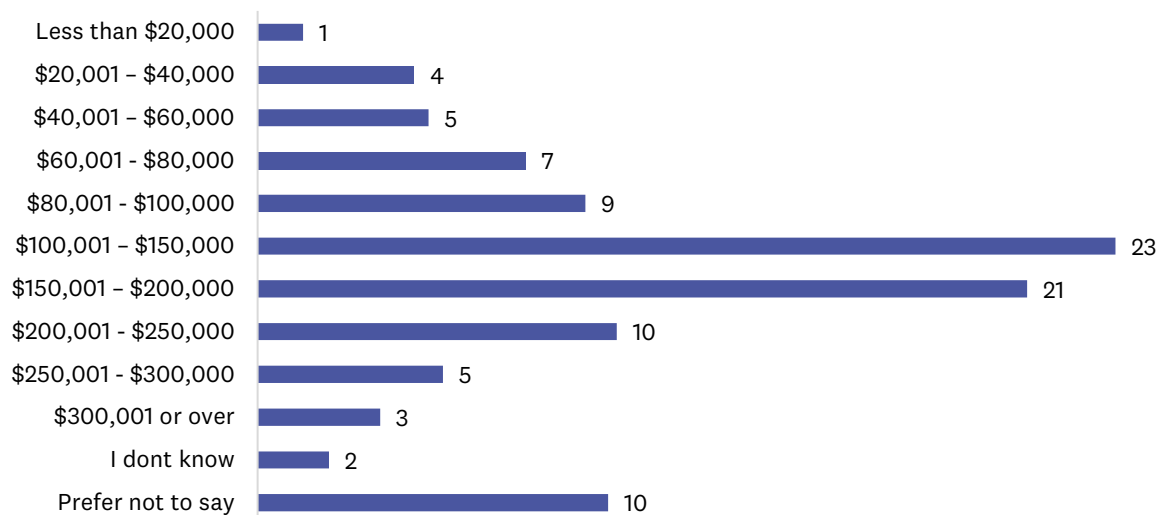
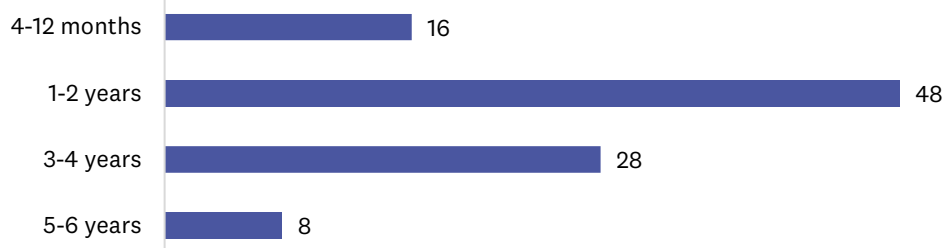


Figure 11: Duration household had lived in the home (n=1243) (%)



Note: Participants who had lived in a home for less than 3 months or longer than 6 years did not qualify to participate in the survey.

Figure 12: Number of people in the household (n=1240) (%)

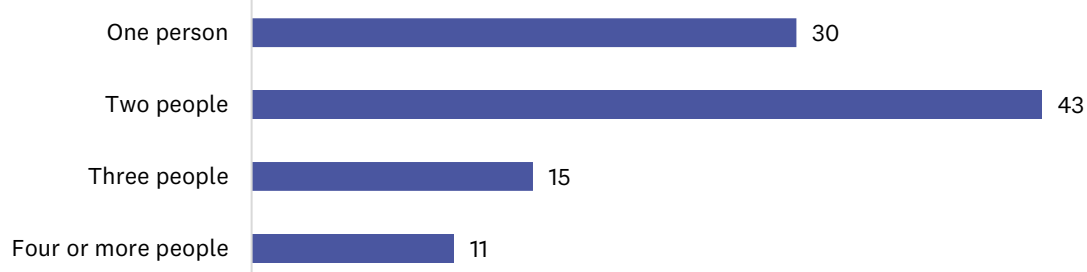
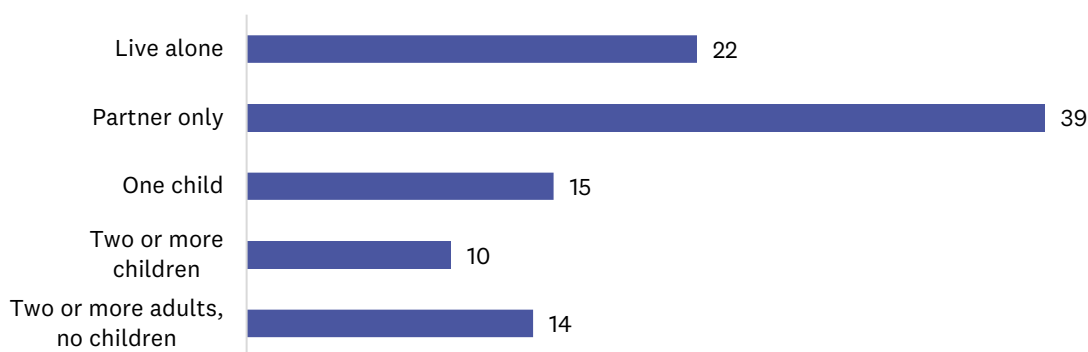
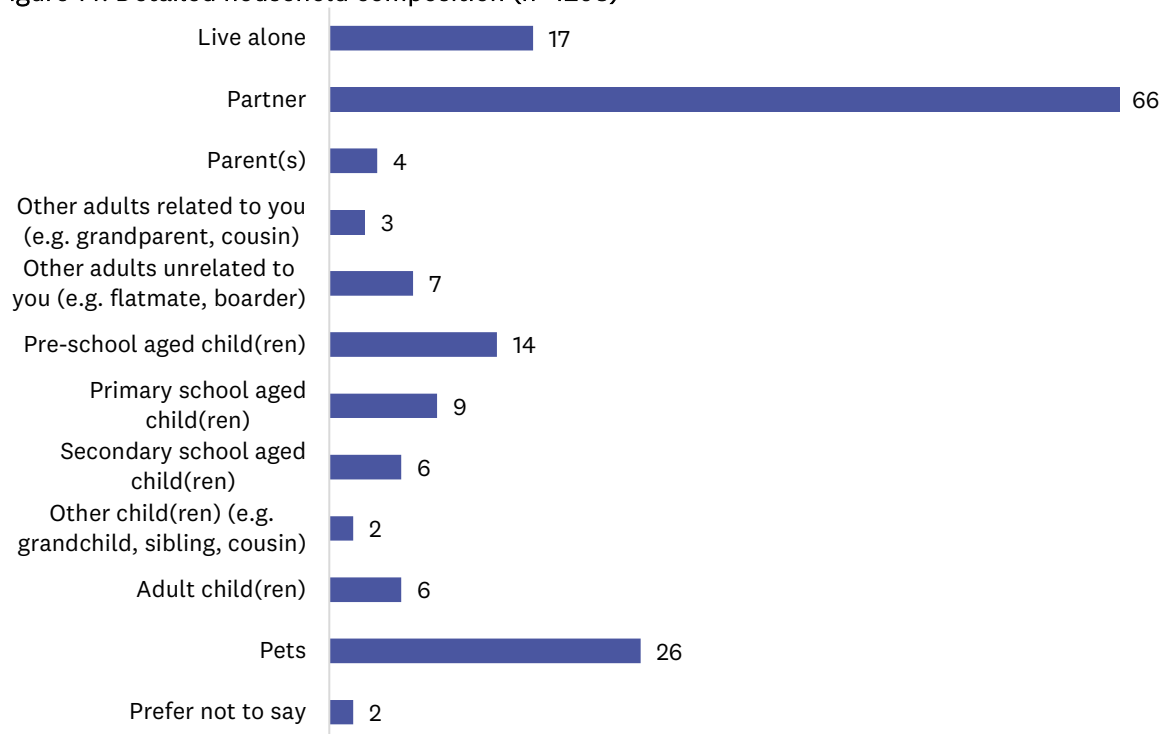


Figure 13: Household composition (n=1178) (%)



Note: 'Live alone' category describes a 1-person household with or without pets.

Figure 14: Detailed household composition (n=1208)



Notes: 1. Multiple responses allowed; therefore, total does not sum to 100.

2. If a 1-person household has a pet, this is not categorised as living alone.

Figure 15: Location of home in Auckland (n=1243) (%)



Figure 16: Housing typology (n=1243) (%)

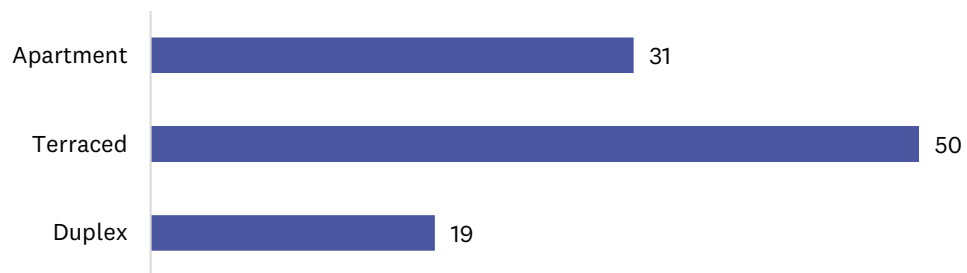
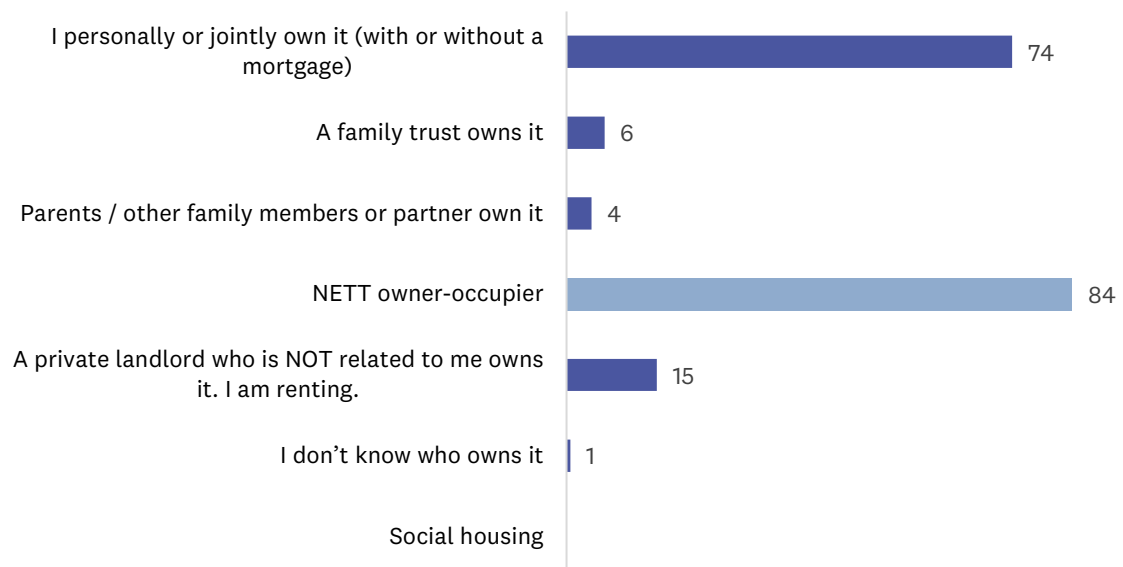


Figure 17: NZ Deprivation Quintile 2018 (n=1234) (%)



Figure 18: Housing tenure (n=1337) (%)



7.1 Survey sub-sample for consented plans

This section displays the demographic characteristics of households and homes selected for the consented plan analysis component of the study. The charts displayed here show characteristics used in the selection of the sub-sample.

Figure 19: Housing typology (%)

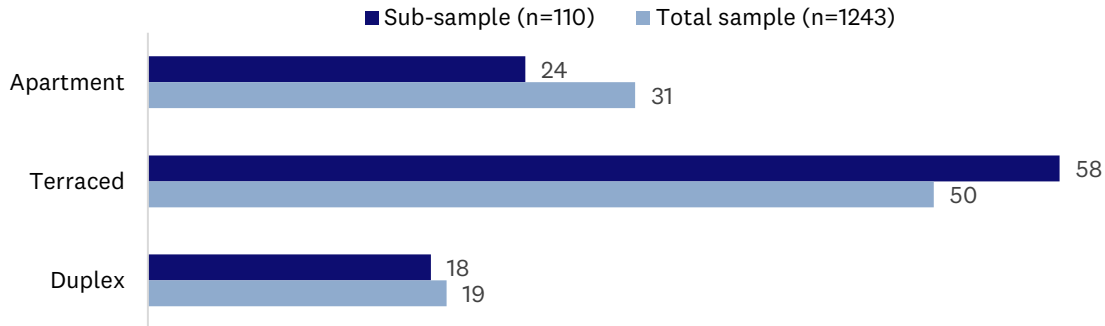


Figure 20: Household composition (%)

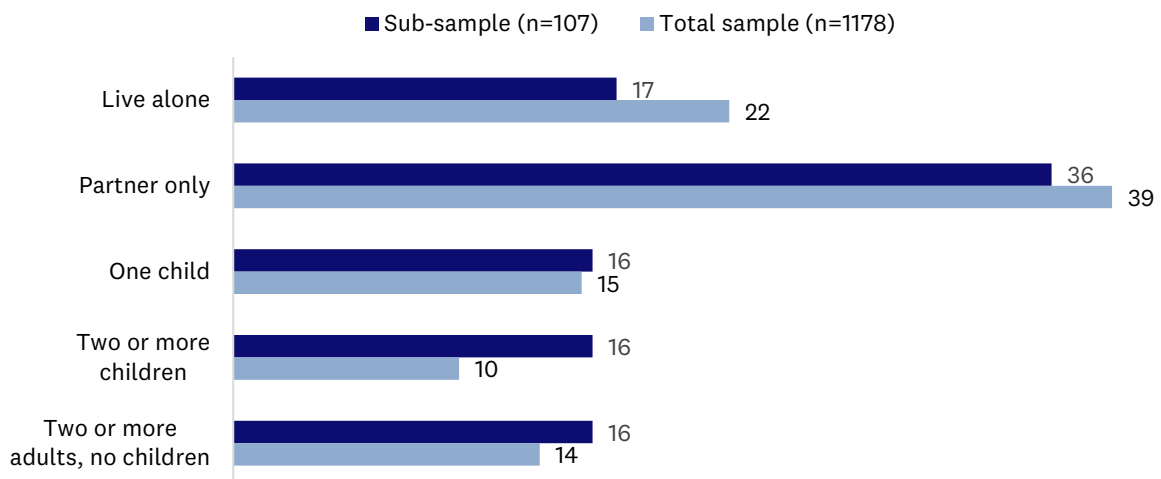
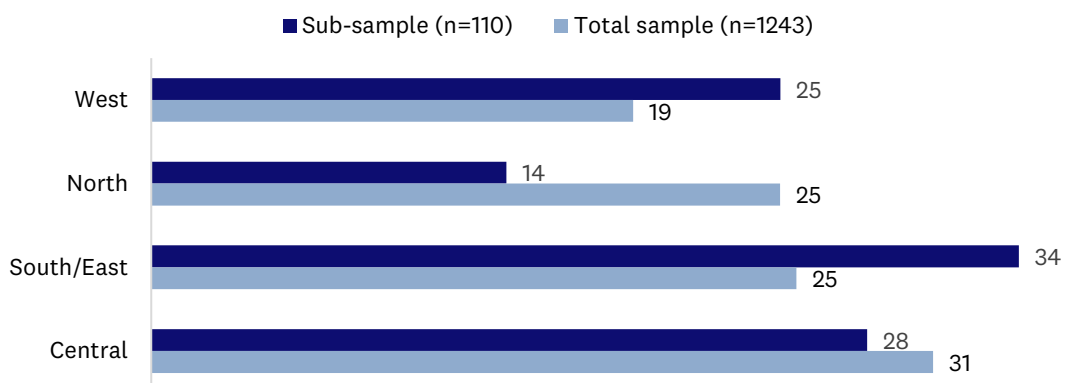


Figure 21: Location of home in Auckland (%)



8 In-home immersion screener survey

Kia ora

Thank you for your interest in participating in an interview about your home, we really appreciate it!

Please complete the details in the form below. We are looking to invite a range of households to participate in interviews, so we will use the information you provide us with to invite participation from a diverse range of households. By completing this form, you are not committing to participate in an interview.

If you have any questions, please get in touch at [email] or call our researchers on [number].

What is your name?

First name	
Last name	

What is your home address?

--

What is your email address?

--

What is your phone number?

--

Who lives in your household? *Select all that apply*

I live on my own	Exclusive response
Partner	
Parent(s)	
Babies aged under 12 months	
Pre-school aged children	
Primary school-aged children	
Secondary school-aged children	
Adult children	
Other adult(s) e.g. flatmates, boarders, cousins, siblings, friends	
Someone else; please describe	

How long have you lived in your home?

--

Participating in an interview involves two researchers coming to your home for about two hours. We will have a conversation about your home and how you live in it. We would like you to take us on a tour of your home, so you can explain to us what you like/don't like about your home. We are interested to learn about details of your home and would like you to show us all of your home including bathrooms, bedrooms, garages, inside cupboards, and outside areas.

Would you be comfortable participating in this interview?

Yes	
No	

As part of the tour of your home, we would like to take some photographs. These photographs will document design features of your home and how these make living in your home easier or harder. These photos and the data that we would collect with them would be used to discuss how people experience living in medium density housing. We will make sure the photos do not include you or other members of your household, or features that could identify you and where you live. Are you okay with photographs being taken inside and around your home?

Yes	
No	

We welcome all members of your household to participate in the interview, including any children who might like to show us around their rooms. Please describe which (if any) members of your household would like to participate:

--

Our researchers want to make sure we are respectful of you and any pets in your home. Are there any cats or dogs in your home?

Yes	
No	

Life in Medium Density Housing in Tāmaki Makaurau / Auckland

Interviews will be happening in October and November 2023. When would you be available to participate in an interview? *Please select all that apply*

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning (9am - midday)							
Afternoon (1pm - 5pm)							
Evening (5pm - 9pm)							

Is there anything else you would like to tell us about yourself or your household? (E.g. preferred pronouns, accessibility considerations, or different languages spoken in the household.)

Thank you for completing this form! We will be in touch!

9 In-home immersion discussion guide

Preliminary discussion about household and home

- Tell us a little bit about your household: Length of time here? Living before? Why move? Why here?
- Were your expectations for this home met once you had lived here for a while?

Home tour general questions

Let's start with favourite space/space you spend the most time in – tell us about how come this space etc.

Interior spaces

Tell us about the kinds of things you do in this space: list and talk through...

- How do you do X in this space? [cooking/hobby/rubbish sorting/working from home/playing with kids]
- What do you like about this space? Dislike about the space?
 - What kinds of activities would you like to do, but are unable to do? Changes made?
 - What would make this space better?
- Tell us about the storage in this room – does it meet your needs? Why/why not?
- Tell us about what it is like to do [relevant social/work/leisure activity/utility process]. Talk us through how you do this...
- Have you used this space for something different in the past?
 - How have you changed what you do here? (COVID) Changed furniture around? Why?
- Tell us about the design features of this space and how they work for you and what you do in this space.
 - Light switches, power points, bench space; door openings
- Tell us about how you have used things to make this home.
- Tell us about the noise and privacy aspects of this space.
- Atmospheric question as relevant to the space: warm/light/ventilated/view/changes with seasons
- I notice XXX; tell us about that.

Utility systems questions

- Tell us about your system for cleaning/rubbish/cooking/arriving home/hanging with kids and/or partner.
- Specific question about storage according to space: Where do you keep...?
 - Are there any important or additional items you are unable to store?
- Home maintenance
- Socialising

- Access: How do you get things in and out of your home? (e.g. groceries, a new bed, etc.)

Exterior spaces

- Show us your outdoor space/s.
 - What about your outdoor spaces works well? What would make it better? (plants, furniture, safety aspects, etc.)
 - Seasonal sunlight/privacy/noise/maintenance of outdoor space.
 - Have you done anything to make it more private/quieter/a better place to be?
 - What activities are you able to do here? Like to do but can't?
- Show us the spaces you share with your neighbours/are communal spaces.
 - What are they, and how do you and your neighbours use them?
 - How often do you see your neighbours here?
 - What works well about sharing these spaces? Challenges? Improvements?
 - Maintenance of shared spaces? Who pays and how?
 - Breezeways around building/complex – how do these impact the environment in your home?
 - Mail systems and access for couriers?
- Show us where you store your car/bikes.
 - What about this carparking/bike storage works well? What would make it better?
 - For on-street parking: How far is your on-street parking from your home? Amount of parking available for household? For visitors? How well does this work? Distance from parking.
 - For complex/apartment: How safe do you feel pedestrians are here? Why?
 - Emergency situations? – How did this work?

Wrap up

- Is there anything else you would like to tell us about your experience of living in your home that we haven't talked about?
- Magic Wand?

10 Design attributes for analysis of consented plans

The table below describes the attributes extracted from the consented plans of the sample properties.

Table 1: Design attributes extracted from consented plans.

Attribute name	Description	Values/units (if applicable)
Mailout_address	The postal address of the dwelling used to invite participation	
Consent_address_parent_site	Address associated with the building consent for the parent site	
Typology	This is the typology as described by the survey participant	
Legal_description	Legal description of the property	
RC_num	Resource consent number	
RC_date	Date RC was first issued – must be no older than Jan 2015 – must be a MDH defined property	
BC_number	Building consent number	
SUB_number	Scheme plan or SUB plan number	
Data_entry_name	The name of the person who entered data	
Scale_check	Reminder to check the scale on drawings	
Dwelling_type	Type of dwelling based on elevations	Duplex, Terraced, Apartment, Standalone
Num_of_units	Number of residential units included in the consent	
Unit_code	The code that identifies the property within the plans – this could be a Lot number or a Unit number	
Unit_type_code	The code that identifies the floor plans for the unit design	
Apartment_level	Level of apartment	G 1 2 3 4 5... NA
Num_storeys_building	Number of storeys in the building based on elevations (excluding basements)	1 2 3 4 5 6...

Life in Medium Density Housing in Tāmaki Makaurau / Auckland

Attribute name	Description	Values/units (if applicable)
Num_storeys_dwelling	Number of storeys in the private dwelling (for apartments only)	1 2 3
Internal_floor_area_sqm	Total internal floor area measured in metres squared – including garage and non-liveable spaces but excluding balconies and outdoor areas – measure using scaled floor plans	m2
Num_bedrooms	Number of bedrooms in dwelling – a bedroom is defined as a room with a door, a window, a wardrobe and space for a bed	1 2 3 4 5 6...
Size_bed_1_sqm	Floor area of each bedroom – measure area outside of the internal wall (i.e. floor area only, nothing inside walls)	m2
Size_bed_2_sqm	<i>As above</i>	
Size_bed_3_sqm	<i>As above</i>	
Size_bed_4_sqm	<i>As above</i>	
Size_bed_5_sqm	<i>As above</i>	
Num_doublebed	Number of bedrooms that are 7m2 or larger (can fit a queen bed)	1 2 3 4 5 6...
Num_singlebed	Number of bedrooms under 7m2 (can fit a single bed only)	0 1 2 3 4 5 6...
Num_bathrooms	Number of bathrooms in dwelling – a bathroom is defined as a room with a toilet and/or a bath/shower	1 2 3 4 5 6...
Size_bath_1_sqm	Floor area of each bathroom – measure area outside of the internal wall (i.e. floor area only, nothing inside walls)	m2
Size_bath_2_sqm	<i>As above</i>	
Size_bath_3_sqm	<i>As above</i>	
Size_bath_4_sqm	<i>As above</i>	
Num_toilet	Number of toilets in the home	1 2 3 4 5 6...
Num_showerbath	Number of showers and/or baths in the home	2 2 3 4 5 6...
Num_in_living	Number of discrete indoor living areas in dwelling – including lounge/living room, dining, study, flexiroom, landings	1 2 3 4 5 6...
Open_in_living	Is the main living area open plan? – including a kitchen, living and dining space	Yes, No
Size_in_living_1_sqm	Floor area of each indoor living area – in open plan this EXCLUDES the kitchen/dining – measure area outside of the internal wall (i.e. floor area only, nothing inside walls)	m2

Attribute name	Description	Values/units (if applicable)
Size_in_living_2_sqm	As above	
Size_in_living_3_sqm	As above	
Num_lounge	Number of lounge or living spaces with a sitting area – e.g. sitting room/living space/rumpus room/ family room	0 1 2 3 4 5 6...
Num_dining	Number of dining spaces – e.g. table, breakfast bar	0 1 2 3 4 5 6...
Num_study	Number of study/office spaces – including study nooks	0 1 2 3 4 5 6...
Num_liveother	Number of other living spaces – including flexirooms, playrooms, media room, music/hobby spaces	0 1 2 3 4 5 6...
Num_kitchen	Number of kitchen or cooking spaces – including outdoor kitchens, butlers' kitchens – a kitchen is defined as a space with a built-in sink and cooking facility (e.g. built-in BBQ, oven, cooktop)	0 1 2 3 4 5 6...
Kitchen_bench_m	Estimate linear metres of empty kitchen bench that can be used for preparation (i.e. clear of sink/stove) – internal measurements for I and L shape – measure one side of island/peninsular bench	m
Kitchen_bench_type	Type of bench in the kitchen	Island/peninsula, Not island/peninsula
Size_kitchen_dining	Floor area of the kitchen and dining area – measure area outside of the internal wall (i.e. floor area only, nothing inside walls)	m ²
Num_out_living	Number of outdoor living areas in dwelling – including balcony, deck, patio, grassed area – 20m ² minimum area to be considered 'outdoor living' – balconies considered 'outdoor living' must be 1.8m min width, 5m ² for studio or 1 bed, 8m ² for 2 or more bedrooms – balconies must be accessible from an living area (not a bedroom) to be 'outdoor living'	0 1 2 3 4 5 6...
Num_balcony	Number of balconies and decks above ground level	0 1 2 3 4 5 6...
Num_patio_deck	Number of patio/paved, decked or grassy areas at ground level	0 1 2 3 4 5 6...

Attribute name	Description	Values/units (if applicable)
Size_balcony_total_sqm	Total size of all balconies/decks above ground level – includes all balcony sizes in all instances unless the balcony is less than 1m in depth or accessible from a bedroom and there is another outdoor living space – if the balcony only has access from the bedroom with depth more than 1m and is the only outdoor living space, then it is included	m2
Smallest_balcony_depth	The depth of the balcony with the smallest area – if only one balcony, then record depth of that balcony	m
Size_planted_total_sqm	Total size of all planted areas within outdoor living spaces – exclude small front gardens, sides of houses, etc.	m2
Size_patio_deck_total_sqm	Total size of patio, deck, usable outdoor living space (i.e. big enough to put a chair there)	m2
Turf	Presence of turf in an outdoor living area	Yes, No
Num_carparks	Number of off-street carparks for dwelling including garages, carport, carparks – driveway with minimum 5m to boundary can be considered as carpark	0 1 2 3 4 5 6...
Car_storage_type_1	Type of storage available for cars	Carport, Basement/under building carpark, Outdoor carpark, Car stacker, On private paved/gravel/grass area/driveway, Private garage with internal access, Private garage without internal access, NA
Car_storage_type_2	<i>As above</i>	
Car_storage_type_3	<i>As above</i>	
Communal_bike_storage	Is the bike storage private or in a communal space?	Communal space, Private space

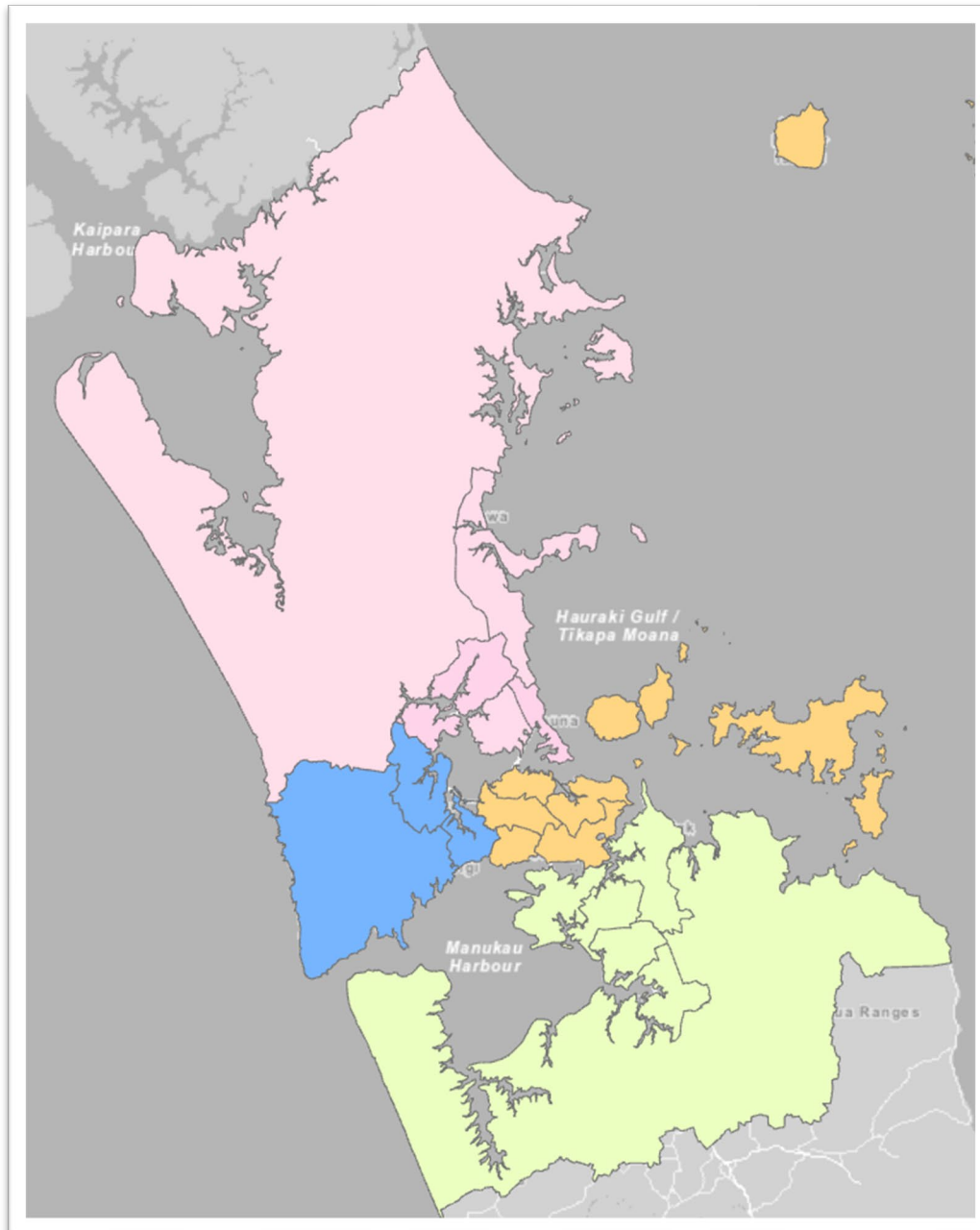
Attribute name	Description	Values/units (if applicable)
Bike_storage_type_1	Type of storage available for bikes – assume garage is place of storage for dwellings with internal garages – for apartment buildings/complexes without private garages, count only dedicated bike parking (e.g. bike room, hanging, bike shed)	Basement/under building dedicated bike area, Private garage with internal access, Private garage without internal access, Bike rack, Storage shed, Sheffield stand, NA
Bike_storage_type_2	<i>As above</i>	
Num_wardrobe	Number of wardrobes in bedrooms	0 1 2 3 4...
Wardrobe_size_1_sqm	Floor area of each wardrobe	m2
Wardrobe_size_2_sqm	<i>As above</i>	
Wardrobe_size_3_sqm	<i>As above</i>	
Wardrobe_size_4_sqm	<i>As above</i>	
Wardrobe_size_5_sqm	<i>As above</i>	
Storage_pantry	A cupboard in the kitchen for the purpose of storing food – usually contains several shelves and is from floor to ceiling in height	Present, Absent, Undetermined
Storage_other	Any other built-in storage – examples: cupboard with shelving for the purpose of storing linen (may be near or in the same cupboard as a hot water tank), cupboards under stairs, storage areas in garages – includes consideration of lockers/communal storage – excludes attic storage	0 1 2 3 4...
Storage_other_area	Total floor area of all storage_others	m2
Size_storage_other_vol_1	Estimated volume of storage based on full floor to ceiling or half (e.g. understairs) height	Full cupboard, Half cupboard, Locker in communal area, Undetermined, NA
Size_storage_other_vol_2	<i>As above</i>	
Size_storage_other_vol_3	<i>As above</i>	
Size_storage_other_vol_4	<i>As above</i>	
Storage_outdoor	An outdoor storage cupboard or shed for storing gardening equipment, outdoor furniture, sports equipment, etc.	Present, Absent, Undetermined
Outdoor_HWC	Is the hot water cylinder in an outdoor living area?	Yes, No,

Attribute name	Description	Values/units (if applicable)
		Undetermined
Outdoor_washingline	Is there a washing line in an outdoor living area?	Yes, No, Undetermined
Outdoor_rainwatertank	Is there a rainwater tank in an outdoor living area?	Yes, No, Undetermined
Outdoor_heatpump	Is there an external heatpump unit in an outdoor living area?	Yes, No, Undetermined
Location_refuse_storage	Location of refuse storage bins	Unknown, None, Outdoor living area, Outside and not outdoor living area, Internal storage, Communal storage
Indoor_outlook_orientation	The outlook from the main indoor living space – i.e. largest glazing in main indoor living.	Private outdoor space, Road/JOAL, Carpark, Communal green space, Public green space
Privacy_indoorliving	Degree of privacy in the indoor living space – high privacy would include visual privacy barriers such as opaque fences/balustrades – medium privacy describes some privacy elements and/or facing communal spaces – low privacy would describe completely open to a public space (e.g. road)	High, Medium, Low, NA
Privacy_outdoorliving	Degree of privacy in the outdoor living space – high privacy would include visual privacy barriers such as opaque fences/balustrades – medium privacy describes some privacy elements and/or facing communal spaces – low privacy would describe completely open to a public space (e.g. road)	High, Medium, Low, NA
Safety_passive	Presence of windows from ground floor active rooms (e.g. dining, kitchen, lounge) overlooking footpaths, driving and common areas (public and private)	Yes, No, Undetermined
Safety_pedestrians	Are pedestrian footpaths vertically separated from vehicle movement areas?	Yes, No, Undetermined, N/A
Shared_in_living	Is there a shared indoor living space such as a lounge?	Yes, No, Undetermined

Attribute name	Description	Values/units (if applicable)
Shared_out_living	Is there a shared outdoor living space such as a garden, patio, decked area?	Yes, No, undetermined
Shared_vehicle	Are there shared vehicles including bikes, cars, scooters?	Yes, No, Undetermined
Shared_exercise	Are there shared exercise facilities such as a gym, swimming pool, tennis court?	Yes, No, Undetermined
Shared_laundry	Are there shared laundry facilities such as washing lines?	Yes, No, Undetermined
Shared_other	Is there another kind of shared facility? Please describe	OPEN

11 Map of broad geographic study areas

Figure 22: Auckland area



- Pink – North
- Blue – West
- Green – South/East
- Orange – Central

- Notes: 1. Aotea/Great Barrier was not included in the study and is not shown on the map.
2. Boundaries between areas are defined by Local Board Areas.

12 Study limitations

Several limitations of the study's scope, method and analysis are acknowledged below in three areas: broader context of housing choice and life satisfaction, aspects of the survey method, and data quality.

Missing context

Our ability to understand the results of the survey would benefit greatly from understanding aspects of the broader context of life in medium density housing (MDH) among Aucklanders, which we did not explore due to time and resource. These topics may be explored in further research.

- Housing choice: There are many factors that people consider and trade off when choosing a home. The topic of housing choice is complex and was intentionally excluded from this study. Further research into the choice to live in MDH could benefit from consideration of 'housing history', by which we mean the housing typologies and densities people have lived in previously.
- Life satisfaction/subjective wellbeing/happiness: It may be that an important factor in explaining housing satisfaction is life satisfaction and/or subjective wellbeing and/or happiness. Literature measuring these concepts over life-courses describes (and debates) a U-shape pattern, whereby these are high at young ages, drop down in middle age, and increase again at older ages (Blanchflower, 2021; Galambos et al., 2020; Matsuo & Matthijs, 2021). Participants' rating of their overall satisfaction generally follows the same U-shaped age pattern, which may be correlated with their general life satisfaction/subjective wellbeing/happiness.
- Primary or secondary home: The survey did not ask participants if their MDH was their primary or secondary home. Some participants might split their time between, for example, a central apartment on weekdays and a standalone home further away from the city centre on weekends. It is anticipated that such a division of time in different homes would have an impact on lived experience and levels of satisfaction.
- Neighbourhood amenities: This study did not ask participants about their neighbourhood and nearby amenities (e.g. green space, transport, services). It is acknowledged that location and neighbourhood amenities are important factors in housing satisfaction (Allen, 2016). Further research could explore housing satisfaction and trade-offs between neighbourhood amenities and the home.

Method

Invited participation

- Estimate of housing typology: Participation was invited based on an estimate of housing typology by Auckland Council. There may be some households living in

recently built MDH who were not invited to participate because of inaccurate estimates of housing typology.

- The Electoral Roll: Properties with at least one elector on the Electoral Roll were included. The Electoral Roll is not always entirely up-to-date, and this may be particularly relevant among those living in recently built and occupied homes. Those renting may also be less likely to have up-to-date information in the Electoral Roll. The Electoral Roll extract used in this study was retrieved approximately a year prior to the 2023 general election. Some groups, such as recent migrants, are ineligible to vote and are not represented in the Electoral Roll.
- Participation was by postal letter. The New Zealand postal system continues to reduce its service, in large part due to the rise in use of alternative means of communication such as email. The frequency by which people check their mailbox and update their postal address in the Electoral Roll may have affected participation.
- Invitations and the survey were in English. It is acknowledged that not all Aucklanders are English speakers.

Choice and ability to participate

- Time to complete the survey: Completing the survey took on average 20 minutes. There may be some who were invited to participate who lacked the time or chose to prioritise their time elsewhere and so did not participate.
- Participation was primarily online, although a paper copy was available on request. These means of participation are acknowledged to not be viable for all who were invited. Three paper copies were requested, and one paper copy was returned.

Sample size

- Sample size of sub-groups: The total sample size of this study is statistically robust. However, the sample size of some sub-groups is small and consequently confidence in findings for some sub-groups is low.
- Resource constraints: A sub-sample of 110 properties were selected to have details extracted from consented plans. The number of properties included in this phase of the study was limited by resourcing constraints.

Data quality cautions

Participants gave conflicting responses to some questions and/or do not appear to have interpreted some questions as they were intended. Consequently, interpreting results from these data requires caution.

- Household composition and number of people in the household. Some participants gave conflicting responses to these two questions such as answering they live with a partner only and one adult is in the household. This is partially the fault of question

design in Qualtrics. To overcome this issue, a new variable was computed to best estimate household composition, and this is what is reported throughout this report.

- Facilities in outdoor living spaces. The survey asked about the impact of some facilities that may be present in an outdoor living space such as a hot water cylinder. The question included the answer ‘I don’t have this facility’. It appears that some participants responded to comment on the impact of the facility on enjoyment of their outdoor living space when the facility was present elsewhere in the home. Consequently, the impact of such facilities being present in outdoor living spaces is likely diluted in the results.
- Typology: Participants were asked to nominate the typology of their home by being shown images with descriptions. In some instances where multiple responses were received from a household, different household members recorded different housing typologies for the same home (e.g. one responded ‘terraced’ while another responded ‘standalone’). For the sub-sample of properties included in the consented plans phase, the typology reported by participants and that recorded by Urban Design Analysts can vary. Overall, housing typology is complex, and a degree of error is present in this variable.
- Room uses: Participants were asked how different spaces in their homes are used, including a garage. The answer options for all spaces were the same (e.g. lounge, cooking space, hobby space, storage could be assigned to any room such as bedroom, living room, garage).
 - Some participants reported conflicting results such as using a bedroom as a cooking space, bedroom, hobby space, storage, and not using the main living space for anything. Such results are likely due to the design of the question in the survey and do not accurately represent how participants are using the spaces in their homes.
 - ‘Carparking’ was not an option for a use of a space and consequently those who reported their garage is used for carparking did so by saying their garage is used for ‘something else’ and writing the use of their garage. The design of this question is therefore likely to underrepresent the proportion of participants who use their garage for carparking.
- Waste management: A question on waste management was asked of participants living in a complex or apartment building. The question was multiple choice and gave participants the answer options of a ‘Bin room/space shared with my neighbours. Collection by a private company (e.g. Green Gorilla, Rubbish Direct)’, ‘Auckland Council kerbside collection’ or ‘Something else’. Some participants who selected ‘something else’ explained they have a bin room shared with neighbours and the bins are collected by Auckland Council. This question is therefore incorrectly conflating the location of bin storage and the organisation(s) collecting waste.
- Overall satisfaction: The survey asked participants about their overall satisfaction with their home and answered by a 5-point Likert scale. The results of this question are not presented in this report as the evidence presented demonstrates that the experience

of living in a home is complex and could not be accurately represented by such a simple question.

13 Codes for open ended responses

Below are the codes for responses to the open ended question: ‘What about your home, including your building/complex, do you like the most?’ Multiple codes could be attributed to a participant response; therefore, percentages do not sum to 100.

Code	Count	Proportion (%)
Location including proximity to amenities and transport, nice area	373	32
New or modern including clean, comfortable, tidy	245	21
Uncoded other holding box (e.g. school zone, positive adjective (e.g. comfortable, convenience), having a lift, having two storeys)	213	18
Temperature including insulation, double glazing, warm	218	18
Nice neighbours including friendly neighbours, sense of community	207	17
Secure or safe including lock up and leave, gated community	195	16
Space or size including comment on specific rooms	137	12
Layout or design including well made. high quality	132	11
Low or easy maintenance	129	11
Quiet including soundproofing	101	9
Dry including not damp, no moisture	94	8
Own including that is mine, I own it, own space to have to myself/ourselves, who live with, afford it	85	7
Sunshine or light including bright, shade	87	7
Outdoor area including greenery/trees	71	6
Privacy	63	5
Good view including outlook	63	5
Carparking including carpark exists, garage	38	3
Unspecific, like everything, all great, I like it	21	2
Negative comment, something disliked	23	2
Total	1183	

Below are the codes for responses to the open ended question: ‘What about your home, including your building/complex, do you like the least?’ Multiple codes could be attributed to a participant response; therefore, percentages do not sum to 100.

Code	Count	Proportion (%)
Other; e.g. smells, air bnb, ventilation, moisture, accessibility, shared facilities, close to neighbours	287	24
Carparking issues within complex/property (or not specified); e.g. not enough for residents, difficult to access	242	20
Small, lacking space (both specific rooms/spaces and general 'small' comments)	183	15
Traffic issues; e.g. traffic noise, leaving complex, lack of PT, public roads, too much road space for PT/cycling, traffic safety	153	13
Noise generated inside complex by people; e.g. neighbours' noise, soundproofing issue	124	10
Outdoor living, green space	116	10
Privacy issues	105	9
Security/safety issues; e.g. theft including mail, vandalism, too much or not enough lighting, crime, feeling unsafe, car security concerns	104	9
Storage issues; e.g. not enough	96	8
Positive comment; e.g. nothing disliked, all great	70	6
Broader community issue (including social housing, non-residents entering complex, crime in neighbourhood)	76	6
Issue with carparking on street; e.g. not enough, garage used for storage and car on road	71	6
Temperature; e.g. too hot, too cold	74	6
Neighbour issues (including antisocial behaviour, non-compliance with rules, smoking)	72	6
Management issues; e.g. body corporate itself, BC decisions, management of common areas	57	5
Kitchen issue; e.g. bench space, small, no pantry	39	3
Visitor carparking issues	37	3
Rubbish issues; e.g. bin storage, incorrect sorting, dumping	37	3

Code	Count	Proportion (%)
Child issues had by households with children; e.g. outdoor play	28	2
Financial issues; e.g. expensive body corporate levies, rent cost, rates	25	2
Bathroom issue; e.g. no bathtub	22	2
Quality of construction, materials, fittings	20	2
Car maintenance issues; e.g. EV charging, car washing	15	1
Air flow, ventilation issue	12	1
Total	1185	

Below are the codes for responses to the open ended question: ‘What about your home makes it comfortable to do some of the activities that are important to you?’ Multiple codes could be attributed to a participant response; therefore, percentages do not sum to 100.

Code	Count	Proportion (%)
Size/layout <ul style="list-style-type: none"> • Layout, room locations, open plan living, separation of space, number of bedrooms; good indoor-outdoor flow • Having a spare room that is not used as a bedroom all the time, but rather for hosting, working, hobbies or exercise • Spacious, ample room, large space • Enough space, just enough room, right amount, big enough • Comments referring to their private outdoors space, both backyards and balconies 	615	58
Privacy, safety, noise <ul style="list-style-type: none"> • Comments about the degree of privacy in the home, both internal and external; ability to be alone • Comments on curtains helping achieve privacy • Safety of the building, safety of the neighbourhood • Comments about quiet neighbours, quiet location and soundproofing • Comments specifically about double-glazed windows • Insulation mentioned 	267	25
Quality <ul style="list-style-type: none"> • Built quality of the home • Comments referring to ‘newness’ of the home • Comments about how clean and/or tidy their homes and surrounding territory are • Includes comments about how ‘modern’ their space is • Comments made about the design of the building, interior • Very broad good comments about their spaces, including niceness, cozyness, comfort 	199	19
Locations and environment <ul style="list-style-type: none"> • View or outlook from the unit • Relaxing environment; being able to relax, read, watch TV, or listen to music • Cheap price or rent; cheap utilities and maintenance; more affordable lifestyle • Comments about spending time as a family • Comments about units being ‘well-equipped’ • Comments about using the garage, both for carparking and for other activities • Comments about laundry, washing machine, dryer • Comments about living room • Comments about bathroom 	184	17

Code	Count	Proportion (%)
Indoor environment <ul style="list-style-type: none"> • Comments about the level of light and sun in their home • General temperature mentioned – unable to say if warm or cool or both • Comments about cool temperature • Comments about warm temperature • Dry air inside their unit • Humidity mentioned – unable to say if dry or humid • Comments referring to breezeway, ventilation, airflow, freshness • Comments about temperature control, having a heat pump or air conditioner; if mentioned, then temperature and airflow are also ticked 	182	17
Activities <ul style="list-style-type: none"> • Kitchen being used for cooking, kitchen appliances, kitchen space • Dining indoor space • Having an office, being able to work from home, enough soundproofing to attend meetings, study from home • Having friends and family for dinner or stay overnight • Being able to exercise • Hobbies, such as crafts, music, reading, gaming • Pray 	170	16
Lifestyle <ul style="list-style-type: none"> • Comments about choosing to live in smaller space • Comments about buying and/or owning their home • Comments about neighbours and community • Having enough space for pets or being allowed pets • Ability to have a garden or arrange pots/planters to grow plants • Easier maintenance of smaller and/or newer space 	142	13
Indoor setup <ul style="list-style-type: none"> • Comments about amount of things owned • Comments about how they have adapted the space through renovations or purchase of new furniture • Comments about changed habits or prioritisation of different hobbies, or being quiet to not disturb the neighbours. • Comments about furniture, including furniture, fitting, appliances • No need for large space to do their activities • Comments about storage • Comments specifically about displaying trinkets and collections 	142	13

Code	Count	Proportion (%)
Other <ul style="list-style-type: none"> • Comments about imaginary scenarios • A negative comment that says something bad about the home • Not applicable 	110	10
Small household size <ul style="list-style-type: none"> • Comments about the participant’s household size (living alone, living as a couple, or not having kids) 	96	9
Location <ul style="list-style-type: none"> • Comments about convenient location and nearby facilities, or having a good environment, neighbourhood • Access to units • Access to public transport, cycleways, etc. 	64	6
Apartment/complex facilities <ul style="list-style-type: none"> • On-site shared facilities (e.g. storage locker, shared guest rooms, communal garden) • Comments about being able to park close to home or having a garage • Comments about fibre or internet connection 	36	3
Total	1061	

Below are the codes for responses to the open ended question: ‘What about your home makes it uncomfortable to do some of the activities that are important to you?’ Multiple codes could be attributed to a participant response; therefore, percentages do not sum to 100.

Code	Count	Proportion (%)
Not enough space <ul style="list-style-type: none"> General comments about 'not enough space' or 'not enough storage space' as this could be indoors or outdoors 	232	43
Indoor space <ul style="list-style-type: none"> Comments where they have specifically mentioned indoor space, either general or a specific room such as the kitchen Can also relate to the layout (e.g. not open plan) 	142	26
Outdoor space <ul style="list-style-type: none"> Comments where they have specifically mentioned outdoor space This can relate to their own property or to lack of a communal space 	84	15
Guests <ul style="list-style-type: none"> Any comments where they mentioned having people over or guests or hosting 	68	12
All other comments	63	12
Carparking <ul style="list-style-type: none"> Any comments related to parking, including comments about not having people over as there is not enough parking for them This theme might be expanded into sub themes 	45	8
Noisy neighbours <ul style="list-style-type: none"> Where neighbours are noisy and/or where the participants do not want to be seen as noisy neighbours themselves Also includes comments related to their ability to hear conversations 	44	8
Storage <ul style="list-style-type: none"> Any comments related to storage, whether actual or missing 	40	7
Privacy <ul style="list-style-type: none"> General comments about privacy 	32	6
Pets <ul style="list-style-type: none"> Comments where they have specifically mentioned pets/cats/dogs 	34	6

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Noise-related issues		
<ul style="list-style-type: none"> Any other noise-related issues such as fireworks, busy road 	23	4
Visual issues		
<ul style="list-style-type: none"> Comments about neighbours being able to see into their yard or their home, or vice versa 	20	4
Neighbours		
<ul style="list-style-type: none"> Any other neighbour-related comments (e.g. general comments about 'proximity to neighbours') 	15	3
Heat		
<ul style="list-style-type: none"> Comments where they have specifically mentioned heat and inability to control heat inside 	13	2
No comment		
<ul style="list-style-type: none"> Answered 'yes' 'no' 	12	2
Total	545	

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