

Life in Medium Density Housing
in Tāmaki Makaurau / Auckland

Chapter 9

Shared facilities



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Overview of the Life in Medium Density Housing in Tāmaki Makaurau / Auckland report

The *Life in Medium Density Housing in Tāmaki Makaurau / Auckland* study was undertaken by Auckland Council's Economic and Social Research and Evaluation team and Tāmaki Makaurau Design Ope (TMDO) in 2023. The primary purpose of the research was to investigate how Aucklanders are experiencing living in recently built medium density housing (MDH).

The results of this research will support everyone involved in the delivery of housing in Auckland (including Auckland Council, central government, developers) to improve future MDH, and ultimately the wellbeing of Aucklanders, through consenting processes, design guidance and land use planning. It will also enable better informed choices by Aucklanders looking to live in MDH.

This study involved a number of methods including a rapid literature review, geospatial analysis to identify recently developed MDH across the Auckland region, an online survey of 1337 participants living in MDH, analysis of the consented plans of 110 properties whose residents participated in the survey, and 20 in-depth in-home immersions which collectively provides a comprehensive view of how people experience their MDH.

This report is divided into 10 chapters and 13 appendices:

Main report:

- Chapter 1: Introduction
- Chapter 2: Legislation and policy context
- Chapter 3: Research method and sample
- Chapter 4: Indoor spaces for living
- Chapter 5: Storage, laundries and bathrooms
- Chapter 6: Outdoor living spaces
- Chapter 7: Indoor environment
- Chapter 8: Carparking and vehicle storage
- Chapter 9: Shared facilities
- Chapter 10: Discussion and recommendations

Appendices:

- 1: References
- 2: NPS-UD and Auckland Regional Policy Statement objectives and policies
- 3: Survey invitation letter and reminder postcard
- 4: Survey consent form
- 5: Survey questionnaire
- 6: Standalone houses excluded from the sample
- 7: Survey sample characteristics
- 8: In-home immersion screener survey
- 9: In-home immersion discussion guide
- 10: Design attributes for analysis of consented plans
- 11: Map of broad geographic study areas
- 12: Study limitations
- 13: Codes for open ended responses

Each chapter is provided as a separate PDF and can be accessed on the Knowledge Auckland website. A summary report with key findings is also available on the Knowledge Auckland website.

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Introduction to this chapter

This chapter considers aspects of medium density housing (MDH) that emerge when homes are part of an apartment building or a housing complex with shared facilities. This includes shared spaces such as communal outdoor living spaces, vehicle and pedestrian accessways, centralised car parking or basement garages, lighting and waste management. These features are not present in low density standalone houses and are more diverse than in high density apartment buildings.

Section 1 explains how a ‘housing complex’ is defined in this study and provides some examples.

Section 2 is a short section that outlines how the survey identified which participants live in a complex and how many participants report their home being part of a complex.

Section 3 focuses on complex and building management, and Section 4 on waste management. They both start with a description of relevant regulations and best practice guidelines before presenting results of the survey and in-home immersions. The survey results presented in these two sections are from questions that were asked of all the survey participants.

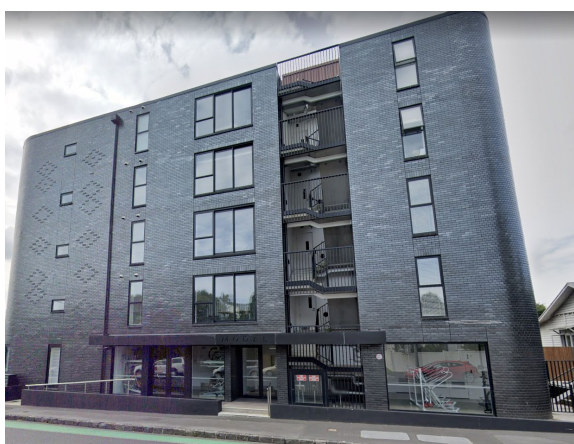
The sections that follow on shared living facilities (Section 5), lighting (Section 6), pedestrian safety and wayfinding (Section 7), mail and other deliveries (Section 8), building or complex access (Section 9), and perceptions of safety from assault, harassment or theft (Section 10), all begin with a description of regulations and best practice guidelines before presenting results of the survey. The survey results presented in these sections are from questions that were only asked of participants who reported they live in an apartment building or a terraced house/duplex that is part of a housing complex. Section 5 also contains results from the consented plan analysis and in-home immersions.

Section 11 contains a summary of the results presented in this chapter.

1 Definition of a ‘housing complex’

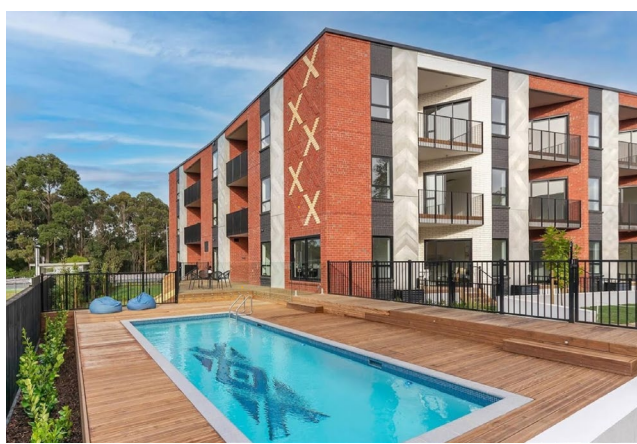
Medium density homes can exist within a ‘complex’ or in a building with shared facilities (such as pools, lounges or communal outdoor space) and shared spaces (such as vehicle and pedestrian accessways, centralised car parking or basement garages, lighting and waste management arrangements). Apartment buildings are straightforward to identify as a typology and two examples are shown in Figure 1 and Figure 2.

Figure 1: Communal bike storage (ground floor) and shared stairwell at an apartment building



Source: Google Maps.

Figure 2: Swimming pool and communal outdoor living space at an apartment building



Source: Google Image, credit to Michelle Waring.

Homes that are part of a complex are more challenging to identify. Terraced houses, duplexes and standalone houses can all be part of a housing complex. In this study, homes that are part of a complex were defined as having shared facilities such as rubbish collection or outdoor living areas, in addition to shared driveways or footpaths. Homes with only a shared driveway or footpath were classified as not being part of a complex. It is acknowledged that terraced houses and duplexes are often accessed by shared vehicle and pedestrian accessways, which will be subject to a legal mechanism such as a jointly owned access lot or right of way easement.

Homes that are part of a complex can either be properties with a unit title (subject to the Unit Titles Act 2010) or can be freehold.¹ When freehold, owners of properties may form a residents’ association (also known as an incorporated society) to manage shared property and services (e.g. accessways, rubbish collection) (see Section 3 for more detail). However, residents’ associations are not always legally required to be established and shared accessways do not have to be jointly owned. Instead accessways can be part of one freehold title and others in the complex have an easement which allows them to travel over the accessway owned by their neighbour.

¹ See Chapter 2, Section 4 for more information on forms of property ownership.

The figures below illustrate various housing complexes of terraced houses and duplexes that would be classified as being part of a complex, and not part of a complex for this study. These demonstrate the wide variety of site layouts, sizes of complexes/numbers of dwellings, and shared facilities.

Figure 3: Example of a housing complex with a private road, centralised carparking, communal bike sheds, communal waste storage areas, and a communal outdoor space



Source: Nearmap Urban Aerial Imagery (NZTM).

Figure 4: Private road



Figure 5: Communal outdoor living space



Figure 6: Shared pedestrian access and communal bike storage shed



Source: TMDO, Auckland Council.

Figure 7: Centralised carpark



Figure 8: Example of a housing complex with a JOAL (Jointly Owned Access Lot), centralised parking, lighting, landscape treatment and pedestrian access



Source: TMDO, Auckland Council.



Source: Nearmap Urban Aerial Imagery (NZTM).

Figure 9: Example of a housing complex with a communal outdoor living space, communal building and shared parking

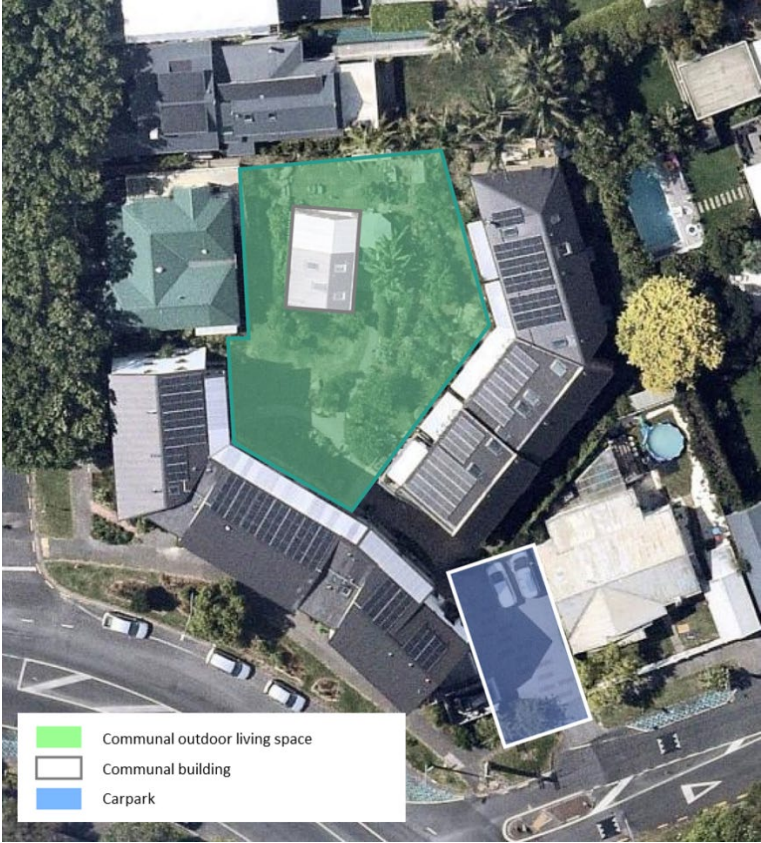


Figure 10: Example of a housing complex with a shared vehicle accessway, centralised carpark, and pedestrian accessway



Source: Nearmap Urban Aerial Imagery (NZTM).

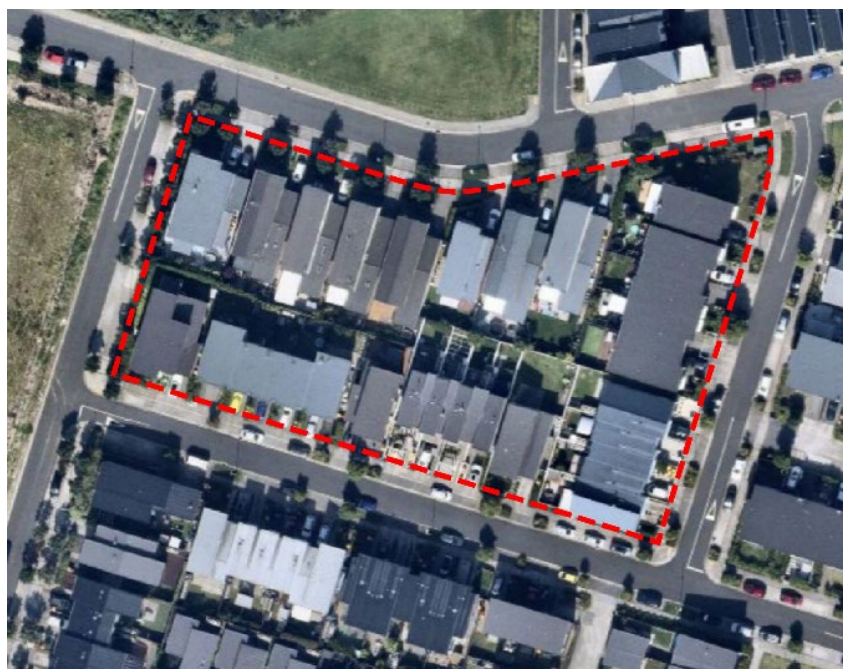
Figure 11: Example of terraced houses with a shared driveway, which is not a housing complex in this study



Figure 12: Example of a terraced houses with a shared pedestrian accessway, which is not a housing complex in this study



Figure 13: Example of a block of terraced houses that are accessible from a public street and are not part of a complex



Source: Nearmap Urban Aerial Imagery (NZTM).

2 Identifying who lived in a complex

The survey asked participants to identify which kind of home they live in, choosing from an apartment, a terraced house or townhouse, a duplex (semi-detached), a standalone house, or something else (see Appendix 5: Survey questionnaire).

Those who said they live in an apartment were automatically categorised as living in an apartment building with shared facilities, and were asked a series of questions about the apartment building they live in.

Participants who said their home was a terraced house or a duplex² were asked to indicate whether the home they lived in was part of a complex, or not, by selecting one of the two options below:

- 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. (My home is part of a complex)
- 2) You home might only share a driveway/footpath or not share any facilities with your neighbours. (My home is NOT part of a complex)

If the participant selected the first option, they were asked questions about the complex they lived in. If they chose the second option, they were not asked questions about living in a complex.³

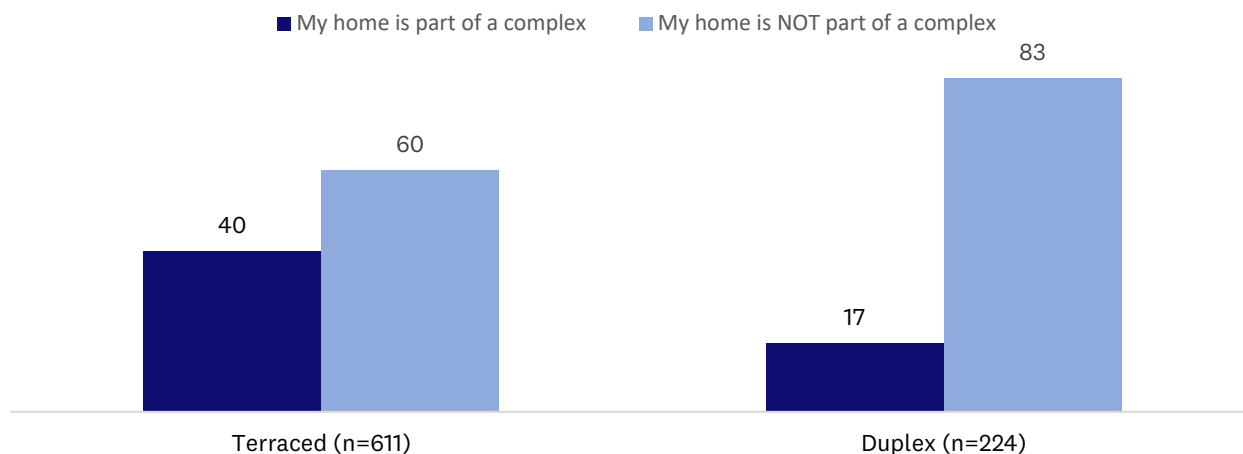
A total of 424 participants were identified as living in an apartment and 308 in a complex. As Chapter 3: Research method and sample explains, multiple people in a household could submit a survey response. The 424 survey responses from apartments represent 391 unique apartments and the 308 survey responses from homes inside a complex represent 285 unique terraced houses or duplexes (i.e. attached homes). A total of 676 homes (391 apartments and 285 terraced houses/duplexes) are reported by the survey participants to be part of either an apartment building or a housing complex.

As Figure 14 shows, four in ten participants reported their terraced house is part of a complex (n=247 terraced houses) and 17 per cent of duplexes (n=38) were reported to be part of a complex.

² This question was also asked of participants who said they live in a standalone house. As Chapter 3 explains, these survey responses have been excluded from this report.

³ It is acknowledged that shared driveways and pedestrian accessways are a communal element of a development, but for the purposes of this research were not categorised as living in a complex unless they were present in addition to other shared elements such as shared waste facilities, communal living space, etc.

Figure 14: Proportion of homes reported to be part of a complex (or not), by typology (%)



The homes that were reported as not part of a complex may have a communal element such as a shared driveway or footpath.

The next two sections (Section 3 and Section 4) report results from questions that were asked of all the survey participants, while the following sections report results from questions asked only of the participants who said they live in an apartment or that their home is part of a complex. Due to the small number of duplexes that were part of complexes, responses from these participants have been combined with those living in terraced houses that were part of a complex.

3 Complex and building maintenance

Apartments or homes that are part of a complex can have access to a range of shared facilities, which require coordinated management. Apartment buildings are typically held in unit title ownership, where the land underneath the building is collectively owned, and which are required to have a body corporate, under the Unit Titles Act 2010. Body corporates manage, for example, maintenance of the building exterior and shared spaces (such as hallways, stairs, lifts, carparks), rubbish collection, and insurance for the building. All unit title owners are members of the body corporate and nominate a body corporate committee (comprised of members) to make decisions about the management of shared property, in accordance with annual budgets and rules of the body corporate.

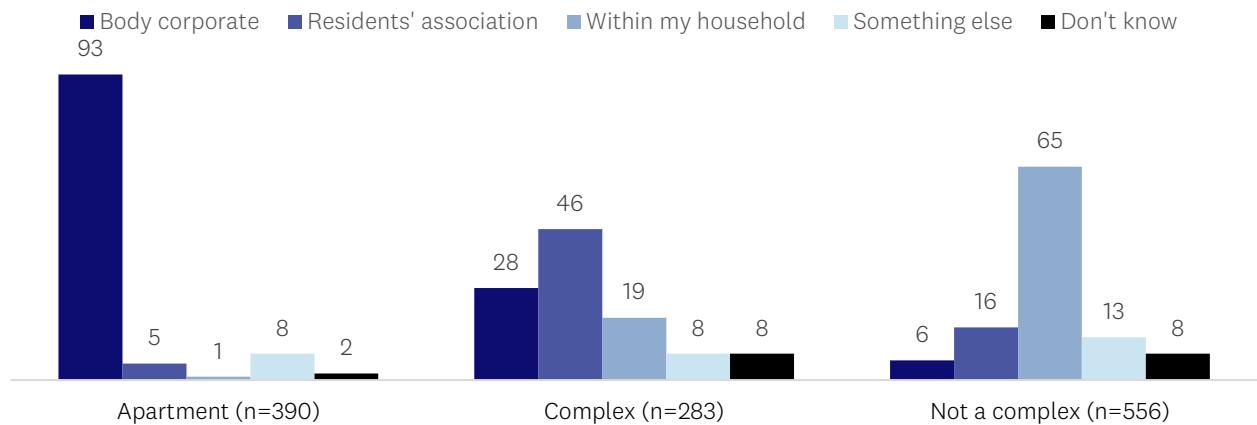
Terraced houses and duplexes are typically held in freehold title ownership with joint ownership or easements over shared areas such as vehicle and pedestrian accessways. A common entity such as a residents' society/association or incorporated society may be established to ensure ongoing maintenance of those co-owned shared facilities, if required by a condition of subdivision consent.⁴ The constitution can set out rules for things such as pets, gardens, alterations to buildings, parking and how levies are collected to maintain communal assets. These entities typically have lower ongoing costs compared with a body corporate. If a residents' association or incorporated society is not established (which is likely for smaller scale developments of fewer than 10-15 dwellings), residents may informally work with their neighbours to manage shared areas.

Participants were asked to indicate from a range of options how the maintenance of their home, including driveways and footpaths, is managed. Maintenance was defined as including building washing, painting external walls, maintaining gardens, rubbish collection or repairing driveway surfaces. Participants could choose more than one option.

As expected, responses to this question varied by housing typology (Figure 15). Most of the participants (93%) living in apartments reported that maintenance was managed by a body corporate. Close to half (46%) of the households living in terraced houses and duplexes inside a complex are managed by a residents' association and 28 per cent reported having a body corporate. Two-thirds (65%) of those not living in a complex report maintenance is managed by members within their household. Six per cent of participants overall reported they 'don't know' how their home is managed.

⁴ An incorporated society (also known as residents' society) and a residents' association is required to be registered under the Incorporated Societies Act 2022 and is authorised by law to run its affairs. Each society has its own constitution advising of rules including members obligations and restrictions, the requirement to pay membership levies, and the requirement for a financial year-end audit. Minimum membership under the Act is 10 members.

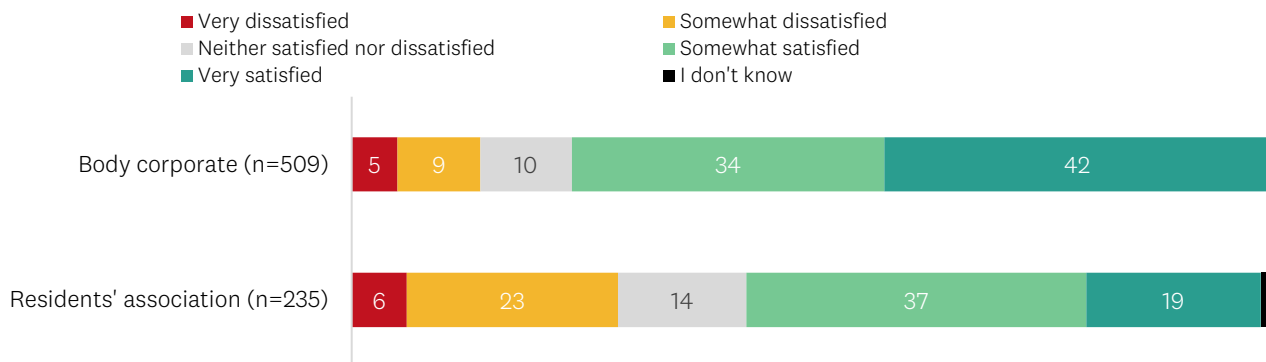
Figure 15: Participant reported management of their building/complex/property, by type of home (%)



Notes: 1. 'Something else' includes landlord, informally with other residents, no mechanism (unmanaged) and other.
 2. Multiple responses allowed; therefore, total does not sum to 100.
 3. 'Complex' and 'not a complex' includes attached homes (i.e. terraced houses and duplexes).

If participants reported that the maintenance of their home was managed by a body corporate or residents' association, they were asked about their satisfaction with maintenance. Those who report being managed by a body corporate were more likely to be 'very satisfied' (41%) compared with those who report having a residents' association (23%). Similarly, those managed by a residents' association were more likely to be 'somewhat dissatisfied' (23%) compared with those managed by a body corporate (9%).

Figure 16: Participant satisfaction with the management of building/complex/property maintenance, by type of management (%)



Five per cent of participants commented on management issues as something they dislike about their home. Within this theme, some participants expressed disagreement with body corporate or residents' association rules (some of which related to site facilities in outdoor living areas; see Chapter 6: Outdoor living spaces):

The fact that the development rules allow for residents to have up to two cats and or dogs in each apartment.

Body corp rules that are too stringent.

Hanging out our laundry to dry! Body Corp rules are strict so we have to get creative when hanging out our bed sheets on our small deck.

Body corporate. Unnecessary restrictions on how we use our private space (e.g. washing line bans, modifications to install shade/shelter, installing EV chargers in our private carparks).

Unable to put heat pump to help with heat issues in summer (40 degrees in summer in main bedroom) because body corp says the ducts are ugly and doesn't fit aesthetic of the community but no one in community agrees.

A few of participants were dissatisfied with how their body corporate or residents' association operated:

The difficulty to get things organised amongst the residents' association; e.g. maintenance of common areas.

Body corporate is useless [at] fixing issues.

The plants are not well maintained by the residents' society and sometimes when you park the car by it, I get scratches from the plants, what bad choice of plants and what a waste of space.

Sometimes the "building managers" are not accessible or are to listen.

Some mentioned a lack of management:

No formal arrangement in place for managing shared driveway and garden, and coordination of maintenance of the building; i.e. painting of building. No body corporate in place.

There isn't a body corp that maintains shared areas and we are of the few home owners that care. So it costs us to maintain it for everyone.

Lack of residents' association to undertake future maintenance requirements, and ability to form one as unable to identify all owners.

A few participants had positive comments about their building/complex management:

Has a body corp so I don't have to worry about the maintenance.

Well looked after by Body Corp.

It looks very stylish and is well maintained by our Body Corporate.

Body corp arranges most things!!

4 Waste management

This section presents research findings about waste management. The section begins with an overview of regulations and best practice guidelines before presented the survey results (Section 4.2) and in-home immersions results (Section 4.3). All the survey and in-home immersions participants were asked about waste management in their home.

4.1 Regulations and best practice guidelines

The appropriate storage and removal of domestic rubbish, recycling and food scraps is an essential consideration for MDH and should be planned early in the design process. Poor consideration of waste management can create a major source of inconvenience and annoyance for residents, as well as increase the ongoing running costs of a development.

Auckland Unitary Plan

The Auckland Unitary Plan (AUP) includes a policy that requires “accommodation to be designed to meet day to day needs of residents by ... providing ... the amenities necessary for those residents”.⁵ This is further supported by an assessment criterion to “provide the necessary waste collection and recycling facilities in locations conveniently accessible and screens [sic] from streets and public open space”.⁶

Waste Management and Minimisation Bylaw 2019

The Waste Management and Minimisation bylaw (WMMB) helps to manage and minimise rubbish, recycling and compost, and includes rules about kerbside collections and requirements for multi-unit developments of 10 or more dwellings.⁷

All dwellings are required to be provided with an area for the storage of main rubbish, recycling and food scrap bins. This area must be large enough to store all waste produced onsite. This can include individual waste bins stored on individual sites, individual waste bins stored communally or shared waste bins stored communally. A waste management plan must be provided for any MDH development of 10 or more dwellings,⁸ including details of the long-term management of these spaces and collection methods.

Draft Waste Management and Minimisation Plan 2024

Auckland Council’s Draft Waste Management and Minimisation Plan 2024 (WMMP) sets the direction and work to manage and reduce waste.⁹ (The draft closed for consultation in March 2024 and is

⁵ E.g. *Auckland Unitary Plan*, Mixed Housing Urban Policy H5.3(5)(b).

⁶ E.g. *Auckland Unitary Plan*, Mixed Housing Urban Assessment criterion H5.8.2(2)(e)(iv).

⁷ Auckland Council. *Waste Management and Minimisation Bylaw 2019*.

⁸ *Ibid*, Part 3, Subpart 2 Approvals, Clause 20(1)(b).

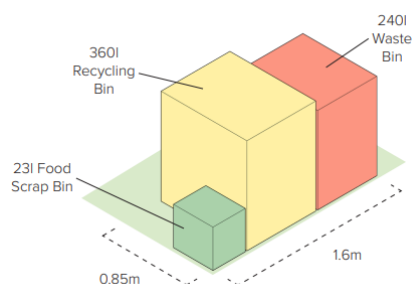
⁹ Auckland Council. (2024). *Draft Waste Management and Minimisation Plan 2024*. Available at <https://akhaveyoursay.aucklandcouncil.govt.nz/waste-management-and-minimisation-plan-2024-2030>

expected to be approved in late 2024.)¹⁰. The WMMP sets out the aspiration for Tāmaki Makaurau/Auckland to be zero waste by 2040. The WMMP has an action to “support Aucklanders to use kerbside recycling and food scraps effectively and to shift to rates-funded collection services”. All rateable dwellings pay a rates contribution towards Auckland Council waste disposal services. This means that currently MDH without a kerbside waste collection make a rates contribution for this service and also pay for their private waste collection service. The WMMP describes an action to continue working with body corporates, the waste industry, property developers, owners and occupiers of multi-unit developments (i.e. housing complexes and apartment buildings with 10 or more properties) to meet their waste collection needs and the requirements of the WMMP. This action is anticipated to result in MDH using an Auckland Council provided waste collection service instead of requiring a private collection.

Auckland Design Manual and best practice guidance

The *Auckland Design Manual* (ADM) provides detailed guidance for the location and design of waste storage areas, with regard to the WMMP, the New Zealand Building Code (2024) and the AUP.¹¹ This includes provision for 1.4m² of space allocated per dwelling for the onsite storage of refuse, recycling and food scrap bins, as shown in Figure 17 below.

Figure 17: Total waste bin storage area (1.4m²)



Source: *Auckland Design Manual*, Residential Design Element R7: Design for waste.

The ADM also provides guidance in relation to the location and accessibility of waste storage areas and the design and durability of the enclosure to ensure it is screened from view of any surrounding dwellings, outdoor living spaces and public spaces.

All the New Zealand and Australian design guidance referred to in this report recommend that waste areas are conveniently located, appropriately sized for the number of dwellings, screened from view of the street and communal areas, unobtrusive and accessibly located for collection. The *New South Wales Apartment Design Guidelines* and the *Apartment Design Guidelines for Victoria* also

¹⁰ Ibid.

¹¹ *Auckland Design Manual*, Residential Design Element R7 – Design for waste.

recommend that apartments have adequate space within the dwelling (up to two days' worth of waste and recycling) for the storage and separation of waste, recycling and food waste.^{12, 13}

Section 35 (s35) monitoring

The s35 monitoring noted that utilities such as rubbish bins are being placed in private outdoor living areas, and reducing the functionality and amenity of those spaces, which essentially become service courts.¹⁴

Design observations

The following design matters have been observed by the council's Tāmaki Makaurau Design Open (Urban Design Unit) in their technical review and monitoring of resource consent applications for MDH:

- Individual bins stored outside the front door can reduce opportunities for landscape treatment and result in public streets, vehicle and pedestrian accessways being dominated by bins.
- Space for individual bins on the public street berm on collection day is constrained, particularly for narrow or rear sites, and can obstruct pedestrian access.

¹² New South Wales Department of Planning and Environment. (2015). *Apartment Design Guide*, Objective 4W-2.

¹³ State of Victoria Department of Environment, Land, Water and Planning. (2021). *Apartment Design Guidelines for Victoria*, Standard D23 or B45.

¹⁴ Auckland Council. (2022). *Auckland Unitary Plan Section 35 Monitoring*, B2.3 A quality built environment, page 78.

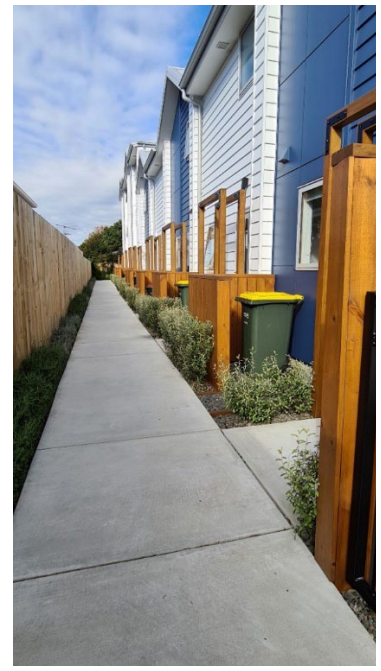
Figure 18: Unscreened individual bins stored outside front door



Figure 19: Communal bin enclosure that is screened and weatherproof



Figure 20: Screened individual bins storage along pedestrian accessway to front door



Source: TMDO, Auckland Council.

Figure 21: Street with rubbish bins



Source: Google Maps.

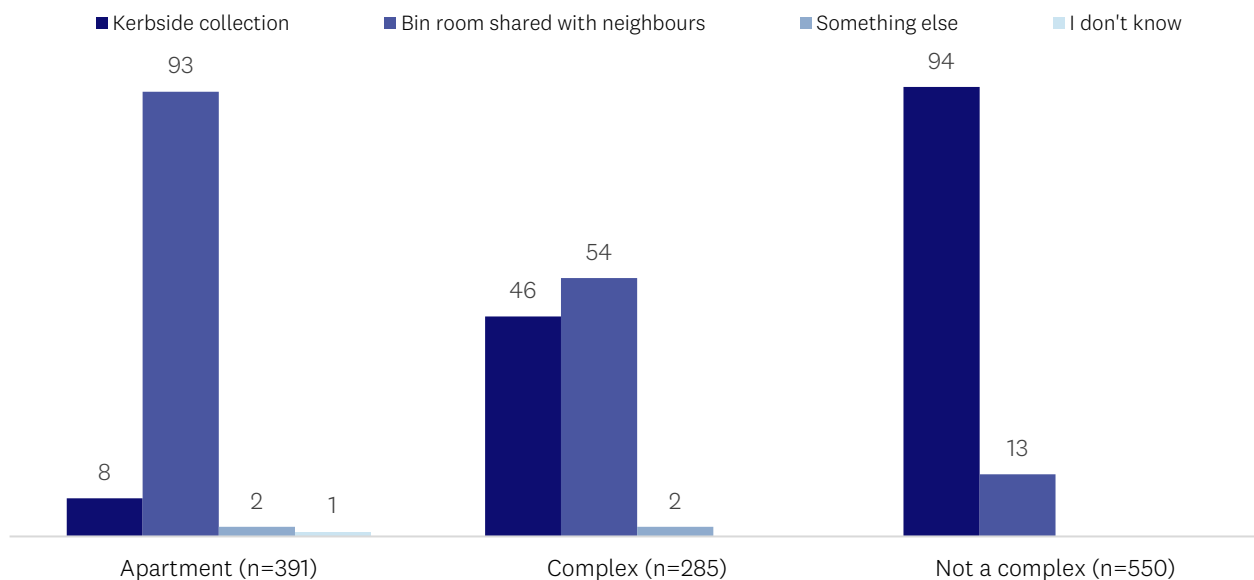
4.2 Survey results

The survey participants were asked to indicate how waste such as rubbish, recycling and composting was collected, from two options: Auckland Council kerbside collection or a bin room/shared space with their neighbours that is collected by a private company. They could also specify another method of waste collection or indicate that they did not know.

As Figure 22 shows, most of the households in apartments (93%) reported that waste is collected in a bin room/space shared with their neighbours. Those living in complexes were almost evenly split

between kerbside collection (46%) and a bin room/shared space (54%). Households in terraced houses or duplexes that are not part of a complex tend to have a kerbside collection (94%).

Figure 22: Waste management for the property, by typology (%)



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

2. 'Complex' and 'not a complex' includes attached homes (i.e. terraced houses and duplexes).

A small proportion of households (5%) reported two kinds of waste management for their home. Some participants explained they have, for example, kerbside collection for landfill waste and a communal collection for organic waste.

Issues relating to waste were mentioned by a small proportion (3%) of participants when asked about what they dislike about their home. Comments within this theme included bin storage issues (for both large wheelie bins and small bins inside):

Lack of bin storage.

The bins need to be rolled down a set of stairs and it is very noisy.

The smell in the rubbish collection area.

Lack of organic/garden waste collection and space for composting were also mentioned:

No collection of garden waste.

Nowhere to put a compost system very easily. I have improvised by borrowing space from a neighbour.

No central compost/food scrap collection.

Issues with neighbours can be problematic:

People constantly not know how the bin system works.

The communal rubbish area is very annoying as others leave all sorts of rubbish that Green Gorilla won't take.

Residents who don't have the same standards re our refuse room – can't seem to put the right things in the right bins or simply dump whatever, wherever because they are too lazy to step up.

Some participants cited issues with rubbish collection service including having to pay for a private company to collect waste:

Have to pay for high rates and still pay for communal bins on top.

We pay for rubbish in council rates but aren't using that service as pay privately and can't get a rebate! No way we could have council bins as developer didn't design in a way there would be room for 14 Rubbish & 14 Recycle bins on site.

Other issues included:

Very unsatisfied when the rubbish trucks have to manoeuvre left and right to collect the bins, troublesome for the workers and hōhā for us as I have to call the council multiple times for them to come collect the red lid bins. I feel that they are stressed by how the roads are designed as it's so narrow, and the extra space for pedestrian is too unnecessary.

Too many rubbish bins – 8 units = 16 bins and no space on footpath.

4.3 In-home immersions

As described in Chapter 3, Section 1.3, this study included 20 in-home immersions with participants who had completed a survey.

Participants shared where they store their rubbish inside their home before it is transferred to an Auckland Council kerbside bin or shared bin. Kitchen rubbish is stored in a range of locations including on bench tops (for food waste), and in built-in and freestanding bins. Participants were generally satisfied with the capacity of their kitchens to accommodate rubbish bins.

Figure 23: Food scraps bin and soft plastic recycling on kitchen bench

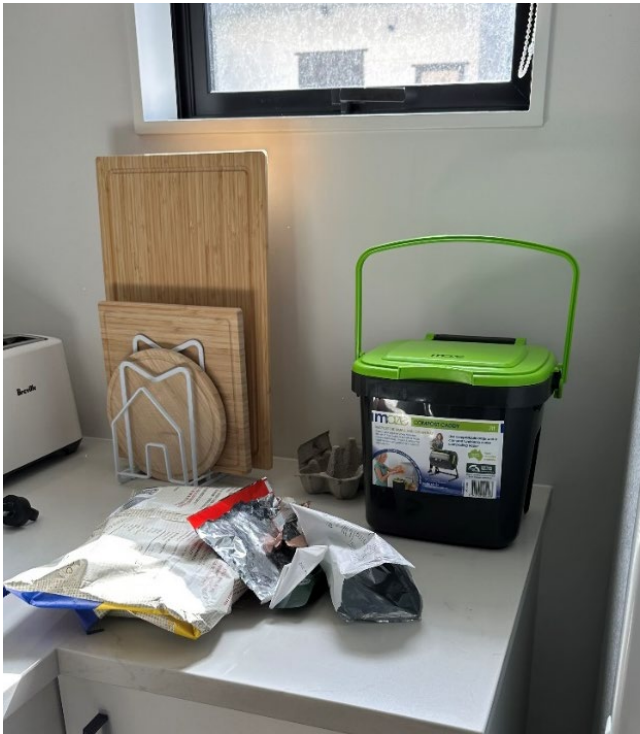


Figure 24: Food scraps bin on kitchen bench



Figure 25: Built in rubbish bins used for landfill and recycling and food scraps bin on kitchen bench



Figure 26: Freestanding kitchen rubbish bin



The in-home immersions found a range of locations where either Auckland Council kerbside bins or shared bins for private collection were stored. Some complexes had communal bin storage sheds or spaces, which were often located in the carpark (Figure 27 and Figure 28). Bins stored in these locations were collected by a private company which would be managed by the body corporate or residents' association.

Figure 27: Communal bin storage

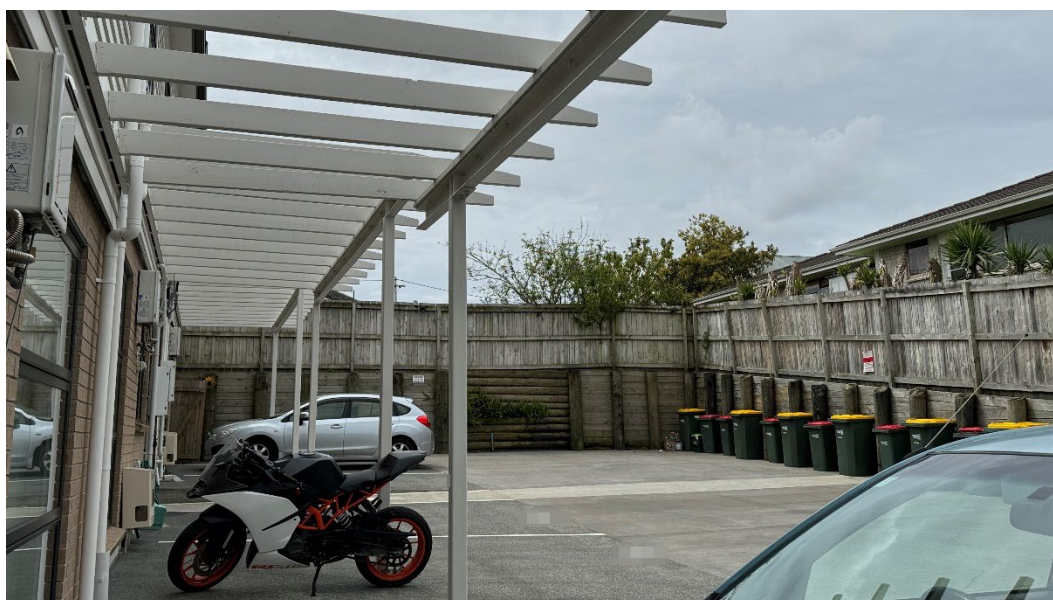


Figure 28: Communal bin storage



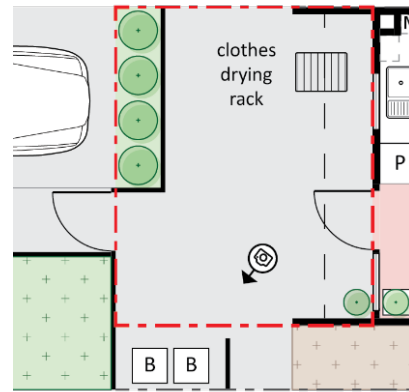
One participant living in a walk-up apartment used Auckland Council kerbside bins, which were lined up against a retaining wall in the shared carpark (Figure 29). These were wheeled down the shared driveway to the public road on collection day.

Figure 29: Auckland Council kerbside bins stored in carpark of apartment building



Other households whose homes were not part of a complex stored their Auckland Council kerbside bins on their property. Bins were stored in a range of locations including, in one example, a dedicated bin storage area that was fenced to separate the bins from the outdoor living space (Figure 30).

Figure 30: Auckland Council kerbside bins enclosed by fencing for a home on a public road



Some households lacked dedicated storage for their Auckland Council kerbside bins and so these were stored by front doors (Figure 31), in outdoor living spaces (Figure 32) and in garages (Figure 33).

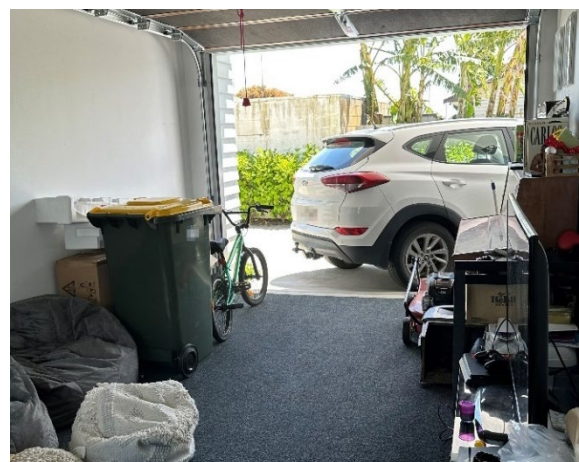
Figure 31: Auckland Council kerbside bins stored by front door



Figure 32: Auckland Council kerbside bins in outdoor living space by front door



Figure 33: Auckland Council kerbside bins in planted area by garage and recycling bin stored inside garage



5 Shared living facilities

Following a description of relevant regulations and best practices guidelines, Section 5.2 presents survey results on shared living facilities. These questions were only asked of survey participants who reported they live in an apartment or an attached home that was part of a complex. Section 5.3 discusses the results from analysis of the consented plans and Section 5.4 focuses on findings from the in-home immersions.

5.1 Regulations and best practice guidelines

Shared living facilities such as communal open space create opportunities for social interaction and building communities. Opportunities to play, relax, garden and exercise can all improve people's mental and physical health and can contribute to a sense of community. They can also increase perceptions of safety, with more people keeping an eye out for each other.

Auckland Unitary Plan

The Auckland Unitary Plan (AUP) does not require any shared living facilities such as communal open space for MDH unless it is for an Integrated Residential Development,¹⁵ which is required to provide “supporting communal facilities such as recreation and leisure facilities”. The size and design of those communal facilities is not specified in the AUP.

Auckland Design Manual (ADM) and best practice guidance

The ADM recommends that shared living facilities such as communal open spaces are carefully designed as an ‘outdoor room’ including:¹⁶

- consideration of both day and nighttime use, including lighting
- provision of appropriately sized, furnished and located formal and informal play spaces that are suitable for the number of intended occupants and future resident demographics, particularly children of different ages
- the space being appropriately landscaped, and contain facilities including trees for shade in summer
- clearly distinguishing between communal spaces for services (e.g. rubbish collection, outdoor laundry drying spaces) and communal amenity areas
- using soft and hard landscaping to define areas.

¹⁵ An integrated residential development is defined in the Auckland Unitary Plan Chapter J1 Definitions as “A residential development on sites greater than 2,000m² which includes supporting communal facilities such as recreation and leisure facilities, supported residential care, welfare and medical facilities (inclusive of hospital care), and other non-residential activities accessory to the primary residential use. For the avoidance of doubt this would include a retirement village.”

¹⁶ *Auckland Design Manual*, Apartment Building Design Guide, Section 5.2 Communal outdoor spaces.

All design guidance referred to in this research report acknowledge the benefits of communal spaces including:

- creating opportunities for residents to interact with each other, creating a sense of community and belonging¹⁷
- creating an important amenity resource that provides for outdoor recreation opportunities, connection to the natural environment and ‘breathing space’ between dwellings in larger scale developments¹⁸
- wider environmental benefits of retaining larger trees and vegetation areas for biodiversity and stormwater management¹⁹
- spaces such as food gardens can help support a more diverse community²⁰
- encourage interaction and improve safety.²¹

The design of communal spaces should consider:

- locating the space in the centre of the development so that it is overlooked by residents and ideally accessible from any common indoor areas
- adequately sizing the space for the number of people anticipated to use the space, the age and ability of residents, and the proximity of other facilities in the surrounding area²²
- locating the space for physical comfort; and consider facilities that would be enjoyed by residents such as communal BBQs, seating and play equipment²³
- safety, security, passive surveillance and privacy.²⁴

Table 1 below sets out the recommended minimum areas for communal facilities where relevant.

¹⁷ Kāinga Ora Homes and Communities. (2024). *Ngā Paerewa Hoahoa Whare Design Requirement* (Version 1.1), Section A2.2 Communal outdoor recreation areas, and Section B3.1 Shared space provision and configuration.

¹⁸ New South Wales Department of Planning and Environment (2020). *Low Rise Housing Diversity Design Guide for complying development*, Section 3Y Communal areas and open space.

¹⁹ Ministry for the Environment. (2023). *National Medium Density Design Guide*, Section 5(C).

²⁰ Ibid.

²¹ Ibid.

²² Kāinga Ora Homes and Communities. (2024). *Ngā Paerewa Hoahoa Whare Design Requirement* (Version 1.1). Section A2.2 Communal outdoor recreation areas, and Section B3.1 Shared space provision and configuration.

²³ Ministry of Housing and Urban Development. (2023). *Public Housing Design Guidance for Community Housing Providers and Developers* (Version 2_1 web), Section 3.6.2 and Appendix 2 Needs assessment tool: Outdoor recreational spaces and child active spaces.

²⁴ Kāinga Ora Homes and Communities. (2024). *Ngā Paerewa Hoahoa Whare Design Requirement* (Version 1.1) Section A2.2 Communal outdoor recreation areas, and Section B3.1 Shared space provision and configuration.

Table 1: Best practice guidance for size of communal facilities

Auckland Unitary Plan	Auckland Design Manual	National Medium Density Design Guide	Public Housing Design Guidance and Kāinga Ora Design Requirements	NSW Apartment Design Guide	NSW Low-Rise Housing Diversity Design Guide	Victoria Apartment Design Guide
<p>Communal facilities such as recreation and leisure facilities are required for residential development to be deemed an Integrated Residential Development on sites greater than 2000m². No minimum size requirement.</p>	<p>Recognises value of communal outdoor living spaces and recommends that it is sized relative to the number of residents, appropriately designed and landscaped in response to context.</p>	<p>Recognises value of communal open space and recommends design useable communal space greater than 5m in diameter.</p>	<p>Adequately sized communal spaces are provided for multi-unit development. Type and size specific to each site and development brief.</p>	<p>Minimum area equal to 25% of the site area. Can include internal communal areas such as pools or gyms.</p>	<p>Recognises benefits of communal open space; size, location and design dependent on context and scale of development.</p>	<p>10 or more dwellings: 30m² minimum landscaped communal outdoor open space.</p> <p>13 or more dwellings: Additional 2.5m² per dwelling or 220m² up to a maximum of 250m². Additional 2.5m² per dwelling can be provided indoors or outdoors and consist of multiple areas of communal open space.</p>

Sources:

- *Auckland Unitary Plan*, Chapter J1, Definitions.
- *Auckland Design Manual*, Apartment Building Design, Section 5.2 Communal outdoor spaces, and Terraced Housing Design, Section 5.3 Communal outdoor spaces.
- Ministry for the Environment. (2023). *National Medium Density Guide*, Section 5, Rule of thumb.
- Ministry of Housing and Urban Development. (2023). *Public Housing Design Guidance for Community Housing Providers and Developers* (Version 2_1 web), Section 3.6.
- Kāinga Ora Homes and Communities. (2024). *Ngā Paerewa Hoahoa Whare Design Requirement* (Version 1.1), Section 3.1 Shared space: Provision and configuration.
- New South Wales Department of Planning and Environment. (2015). *Apartment Design Guide*, Part 3 Siting the Building, 3D Communal and public open space, Design criterion 3D-1.1.
- New South Wales Department of Planning, Industry and Environment. (2020). *Low Rise Housing Diversity Design Guide for complying development*, Section 3Y Communal areas and open space.
- State of Victoria Department of Environment, Land, Water and Planning. (2021). *Apartment Design Guidelines for Victoria*, Section 1 Communal open space.

Design observations

The following design matters have been observed by the council’s Tāmaki Makaurau Design Open (Urban Design Unit) in their technical review and monitoring of resource consent applications for MDH:

- Provision of communal open space is not common, and when provided, the AUP lacks any guidance on the size and design of communal spaces.
- Unless communal space is a primary consideration at site planning stage, it is often ‘leftover’ spaces that are not appropriately located or designed.
- Where communal open space is provided, ongoing management and maintenance must also be considered.

Figure 34: Privately owned communal open space containing a playground, basketball court, BBQ and seating area and lawn space created as part of an integrated residential development and managed by a residents’ society



Source: TradeMe Property.

Figures 35 and 36: Communal indoor and outdoor rooftop living space of an apartment building



Source: Ockham.

Figure 37: Communal outdoor living space with fruit trees and garden beds of an apartment building



Source: Ray White.

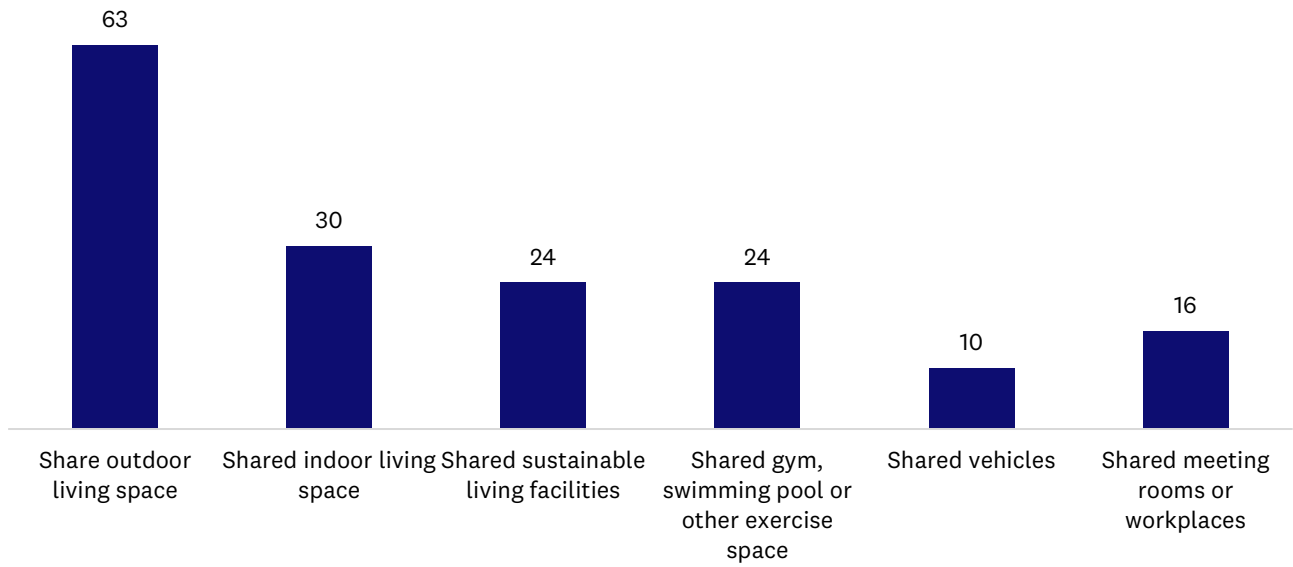
5.2 Survey results

The participants living in an apartment or complex were asked to rate how satisfied they were with facilities that they shared with their neighbours, from a list of five possible options. If the facility was not part of their building or complex, they could state this by answering 'I don't have this/I don't know'. In addition, if the participants lived in an apartment, they were asked to rate their satisfaction with any shared meeting rooms or workspaces.²⁵

The proportion of homes in apartment buildings and complexes with shared facilities are similar (Figure 38 and Figure 39). Households living in apartments buildings are more likely to have a shared outdoor living space (63%) than those living in a complex (53%).

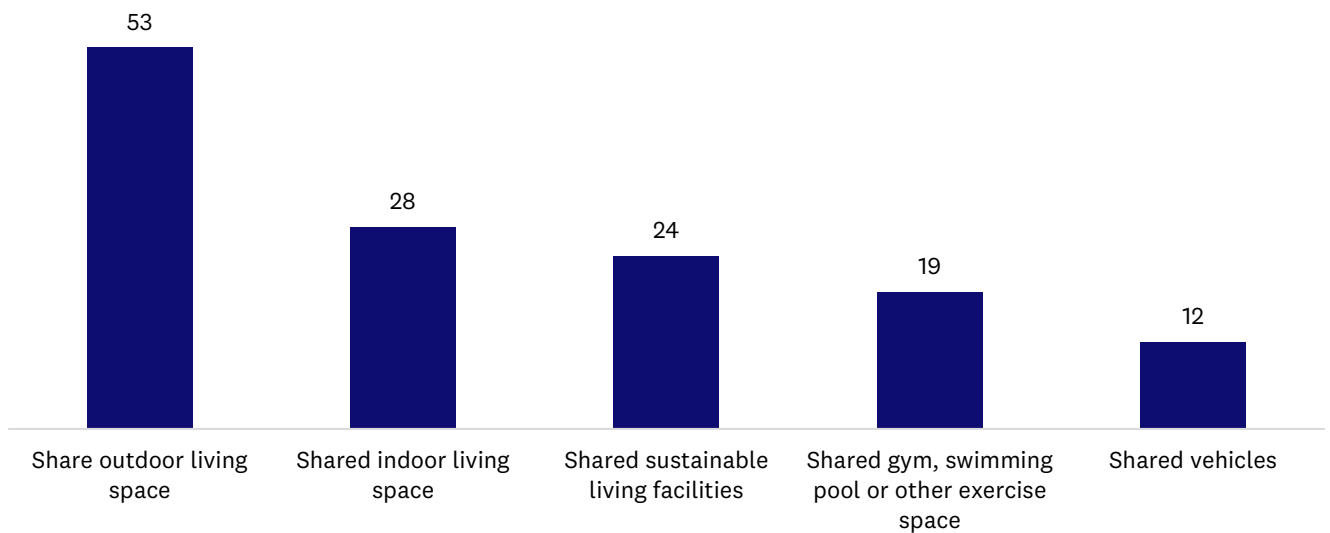
²⁵ If a participant answered the question by providing a satisfaction rating, this was interpreted to mean that the facility was part of their apartment building or complex.

Figure 38: Shared facilities interpreted to be in apartment buildings (n=391) (%)



Notes: 1. 'Sustainable living facilities' may include, for example, rainwater harvesting, solar panels, EV charging station or composting.
 2. 'Shared vehicles' may include, for example, CityHop cars (car sharing service), e-scooters or bikes (e.g. JUMP, Lime).

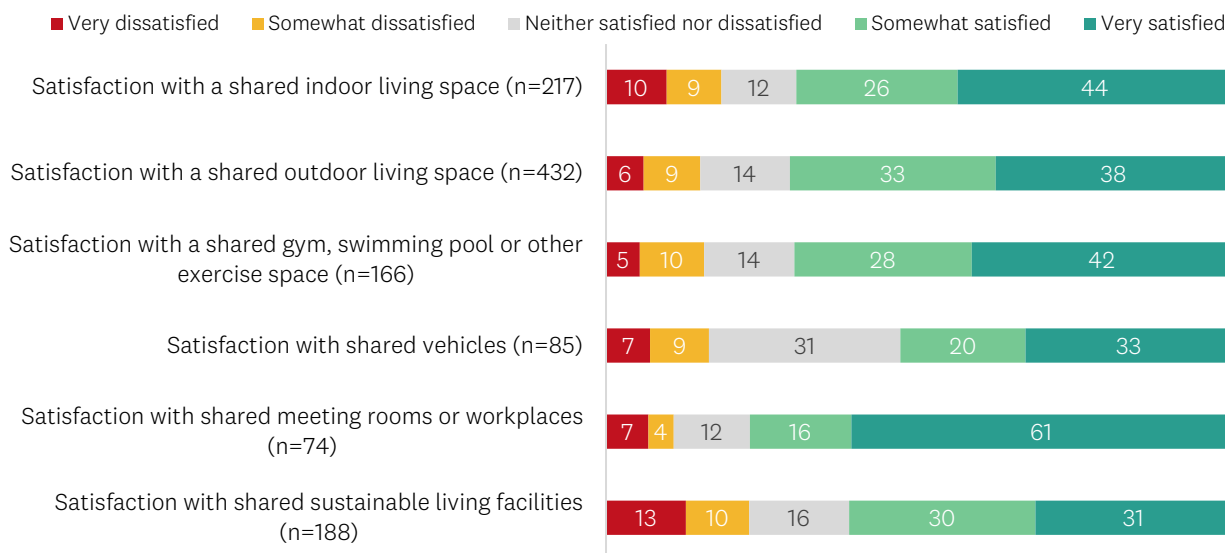
Figure 39: Shared facilities interpreted to be in a complex of terraced houses/duplexes (n=285) (%)



Notes: 1. 'Sustainable living facilities' may include, for example, rainwater harvesting, solar panels, EV charging station or composting.
 2. 'Shared vehicles' may include, for example, CityHop cars (car sharing service), e-scooters or bikes (e.g. JUMP, Lime).

A relatively large proportion of the participants who had shared facilities in their complex or building reported satisfaction with these facilities.

Figure 40: Satisfaction with shared facilities (%)



Note: Base is all the participants who live in a complex with a shared facility.

When asked what they like about their home, a handful of participants described aspects of their communal outdoor living space.

The outdoor pool, pavilion, garden & green space, trees, view, terrace, good and sociable neighbours. Good use of technology e.g. a shared property management app where I can log maintenance requests for the building manager, report emergencies and book the pavilion; a WhatsApp group with other apartment owners to discuss topics e.g. plantings, where is the trolley now, invitation to drinks in the pavilion.

Space inside the home is generally adequate for most activities, but is highly supplemented by access to a shared garden house (approx. 50m² – useful for some hobby activities and when having a larger gathering of friends/family), larger shared garden (~600 m² – gives space for growing veg & fruit trees, having lawn and play space and having some denser native plantings), shared guest bedroom with ensuite bathroom (means we can have more people over to stay).

I have a garden plot in the community garden and a worm farm so can grow some veges and herbs.

Kids playing in the courtyard.

5.3 Consented plans

As described in Chapter 3, this study included analysis of the consented floor plans for 110 properties whose households had participated in the survey.

Few properties in the sample were found to have any shared living facilities in the complex or building. A communal outdoor living space was the most common kind of facility present (22 properties; Table 2). In some cases, the consented plans showed fewer shared facilities than survey participants indicated were present in their responses. This could be due to consented plans lacking information about facilities (e.g. shared vehicles), or changes to the building/complex between the time of consent and survey data collection.

Table 2: Counts of properties with shared facilities in the complex/building

Type of facility	Facility present	Facility absent	Status of facility unknown
Shared indoor space	8	101	1
Shared outdoor space	22	88	-
Shared vehicles including cars and bikes	1	57	52
Shared exercise areas including gym, pool	4	106	-
Shared laundry including washing lines	2	107	1

5.4 In-home immersions

A small number of participants live in homes that have access to shared living spaces. One participant lives in an apartment building that has a communal pool and decked area. They had used this space in the past but found it can get crowded and so prefer to swim elsewhere.

Figure 41: Communal outdoor living space as part of an apartment building



Three households had access to an outdoor space that was part of their housing complex, and that was also accessible to the public. One of these communal outdoor living spaces is a grassed area with low planting around the edges (Figure 42). An adult daughter in this household said about the space:

Figure 42: Communal outdoor living space with grassed area

We would use it if there was a basketball court or something. That was what my sister was hoping. But now, people just walk the dogs and we walk around the courtyard after dinner.



A household in a terraced housing complex had a shared outdoor living space with garden beds (Figure 43), and one of the household members enjoyed spending time contributing to the upkeep of the gardens.

Figure 43: Communal outdoor living space with grassed area and community garden beds



A third household with a shared outdoor living space lived in a walk-up apartment (Figure 44). They described how once during summer, households in the complex came together to have a picnic on the grass. However, most of the time they were too busy at work or school and did not find time to use this space.

Figure 44: Communal outdoor living space in walk-up apartment complex



6 Lighting

This section first outlines regulations and best practice guidelines about lighting before presenting results of the survey. All 732 participants who reported they lived in an apartment building or in a housing complex were asked questions about lighting.

6.1 Regulations and best practice guidelines

Lighting has a positive effect on personal safety and on reducing levels of crime (Farrington & Welsh, 2002; Nasar & Jones, 1997), and so should be a primary consideration and integral to the overall design of a residential development.²⁶ The New Zealand industry standard for lighting sets out performance and design requirements for pedestrian areas and acknowledges that lighting is an effective counter measure to the fear of crime.²⁷

Auckland Unitary Plan (AUP)

The AUP requires lighting to be provided where there are 10 or more parking spaces which are likely to be used during the hours of darkness, with adequate lighting (Section E24) to be provided to access and manoeuvring spaces and pedestrian routes.²⁸ Plan Change 79 (PC79) provides clarity on ‘adequate’ lighting by requiring compliance with the relevant Australia New Zealand Standard AS/NZS 1158.3.1:2020.²⁹ Auckland Council released the Independent Hearings Panel’s decision on Plan Change 79 – Transport on 9 August 2024.³⁰

Auckland Design Manual (ADM) and best practice guidance

The ADM recommends that lighting is provided so that people can identify another person from at least 15m distance and that communal areas (including carparking areas) are lit appropriately to provide visibility after dark but also that that lighting should not create nuisance for residents.³¹

Other best practice design guidance recommends that lighting is:

²⁶ Ministry of Justice. (2005). *National Guidelines for Crime Prevention through Environmental Design in New Zealand*, Part 1: Seven Qualities of Safer Places.

²⁷ AS/NZS 1158.3.1:2020 *Lighting for roads and public spaces*, Part 3.1 Pedestrian area (Category P) lighting – Performance and design requirements, Foreword.

²⁸ *Auckland Unitary Plan*, Chapter 27 Transport, Standard E27.6.3.7 Lighting.

²⁹ Source: <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/unitary-plan/auckland-unitary-plan-modifications/Pages/details.aspx?UnitaryPlanId=145>

³⁰ Source: <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/unitary-plan/auckland-unitary-plan-modifications/Pages/details.aspx?UnitaryPlanId=145>

³¹ *Auckland Design Manual*, Design for Safety, Section 6.2 Best practice for lighting.

- provided to all entry doors and pedestrian access routes from the street and carparking, driveways, parking and any common areas,³² to enhance wayfinding and community safety,³³ and to enable it to be used by day and night³⁴
- integrated with passive and active security measures and natural surveillance³⁵
- designed to avoid light spill and disturbance to neighbours³⁶
- designed in accordance with Australia New Zealand Standard AS/NZS 1158.3.1 Lighting for Roads and Public Spaces.³⁷

Section 35 (s35) monitoring

No specific monitoring of lighting was undertaken as part of the s35 monitoring.

However, the section 32 analysis supporting Plan Change 79 found that fewer than 47 per cent of the developments that rely on pedestrian-only access had any form of lighting.³⁸ For developments accessed by private vehicle access, only 39 per cent of developments provided any lighting detail at resource consent stage.³⁹

Design observations

The following design matters have been observed by the council's Tāmaki Makaurau Design Open (Urban Design Unit) in their technical review and monitoring of resource consent applications for MDH:

- Lighting is generally not well considered at site planning stage with poor regard for placement. It often conflicts with other design elements such as trees/landscape treatment, including placement of lighting infrastructure within pedestrian paths.
- Solar bollards appear to be preferred by developers as they do not require mains power, but unless of a high quality with adequate access to sunlight, these will not provide adequate lighting.
- Sensor lighting on front doors of individually owned dwellings is common but is reliant on individual owners/occupants maintaining lighting for the benefit of wider residents.

³² Ministry of Housing and Urban Development. (2023). *Public Housing Design Guidance for Community Housing Providers and Developers* (Version 2_1 web), Section 3.9.3.

³³ Ministry for the Environment. (2023). *National Medium Density Design Guide*, Section 5(G).

³⁴ State of Victoria Department of Environment, Land, Water and Planning. (2021). *Apartment Design Guidelines for Victoria*, Guidance to communal open space (6).

³⁵ Kāinga Ora Homes and Communities. (2024). *Ngā Paerewa Hoahoa Whare Design Requirement* (Version 1.1), C2.3 Lighting.

³⁶ Ibid.

³⁷ New South Wales Department of Planning and Environment. (2020). *Low Rise Housing Diversity Design Guide for complying development*, 2.3F-2, Design criteria 49.

³⁸ Proposed Plan Change 79 – Transport to the Auckland Unitary Plan, Section 32 – Evaluation report (August 2022), page 13.

³⁹ Ibid., paragraph 143.

Figure 45: Solar light bollards provided to communal pedestrian accessway

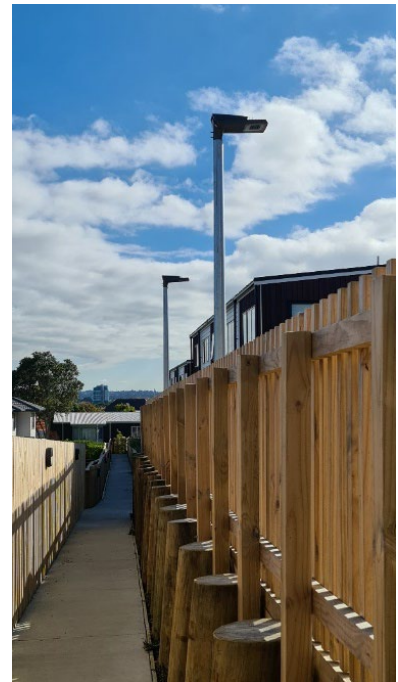


Source: TradeMe Property.

Figure 46: Light poles to a communal car parking court and pedestrian pathways



Figure 47: Light poles to a pedestrian accessway and carpark



Source: TMDO, Auckland Council.

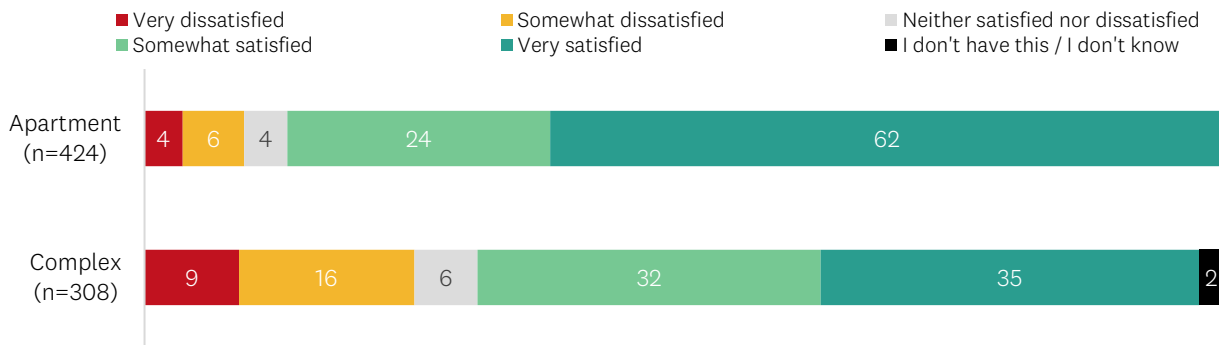
Source: TMDO, Auckland Council.

Note: Placement within footpath has occurred due to lighting not being considered at the same time as the design of the carpark, footpath and private garden areas.

6.2 Survey results

Overall, almost nine in 10 of the participants living in an apartment (87%) and over two-thirds of those living in a complex (67%) are ‘somewhat’ or ‘very satisfied’ with the lighting in and around their complex/building. As Figure 48 shows, satisfaction with lighting varied significantly by housing typology. Participants living in apartments were more likely to report they are ‘very satisfied’ (62%) compared with those in a complex (35%). Furthermore, those living in a complex were more likely to report they are ‘somewhat’ (16%) or ‘very’ dissatisfied (9%) with lighting compared with those in living apartments (6% and 4%, respectively).

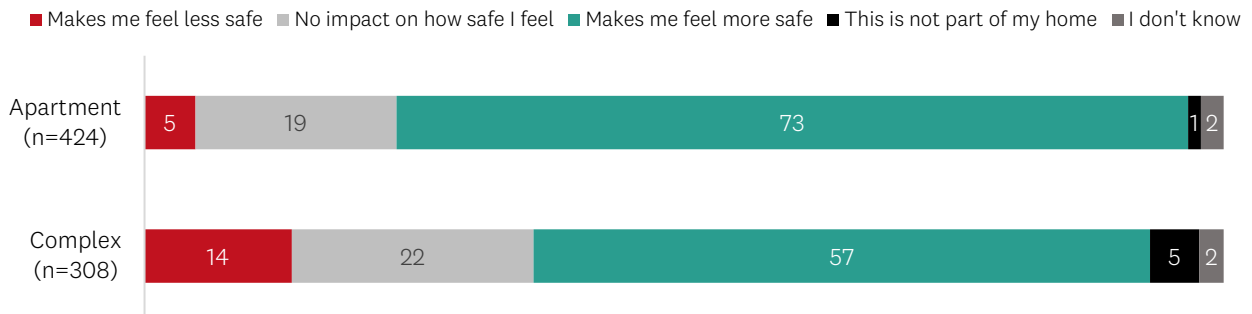
Figure 48: Participant satisfaction with lighting in and around your complex/building, by type of home (%)



Note: Base is all the survey participants who were living in apartments or complexes.

Participants were asked about how lighting in shared areas impacts their perception of safety. Two-thirds (67%) reported that lighting makes them ‘feel more safe’. Those living in apartments were more likely to report lighting makes them ‘feel more safe’ (73%) compared with those living in a complex (57%). Those living in complexes were more likely to report lighting makes them feel ‘less safe’ (14%) compared with those in apartments (5%). This could be the result of insufficient lighting in these complexes.

Figure 49: Impact of lighting along footpaths, hallways, driveways, car parks or other shared areas on perception of safety, by type of home (%)



Note: Base is all the survey participants who were living in apartments or complexes.

Some participants mentioned a lack of lighting as something they dislike about their home:

No light outside of my home, very dark – lighting makes participant feel ‘less safe’

Poor lighting on the stairs – lighting makes participant feel ‘less safe’

Poor lighting in carpark – lighting has ‘no impact’ on participant’s feelings of safety

Two participants reported an excess of light as something they dislike about their home:

There is far too much external lighting and this affects my ability to sleep. I have complained to the residents’ assoc – to no avail. I also hate that neighbours leave security lights on at night (making the lighting situation even worse –lighting has ‘no impact’ on participant’s feelings of safety

Too much security lighting – lighting has ‘no impact’ on participant’s feelings of safety

7 Pedestrian safety and wayfinding

This section covers aspects of pedestrian safety and wayfinding in apartment buildings and housing complexes. Regulations and best practice guidelines are presented first, followed by survey results. The participants who reported they live in an apartment building or in a housing complex were asked questions about these topics.

7.1 Regulations and best practice guidelines

Complexes typically include accessways (vehicle and/or pedestrian) which lead from the public street to the front doors of homes. These accessways are used by households and visitors and for deliveries. Shared pedestrian paths may also be provided between homes and communal spaces such as grouped carparking areas, letterboxes and refuse storage areas. The ease by which people, and particularly visitors (including postal and courier deliveries), can find their way through a site (known as ‘wayfinding’), can be reduced when the complex is not served by a public street, particularly when there are multiple points of entry to a site and internal circulation routes.

Pedestrian safety and driveway runovers have long been recognised as an avoidable threat to the lives of children, particularly in New Zealand (Hsiao et al., 2009; Murphy et al., 2002; Roberts et al., 1995) with four to five children dying and more than 20 hospitalised each year from an event of this type.⁴⁰ Fifteen children aged between 0 and 14 years died in Auckland due to driveway runovers between 2009 and 2018.⁴¹

Separate pedestrian access is associated with a reduced risk of driveway injury, with the presence of a separate pedestrian footpath from a home to the public footpath associated with a more than twofold reduction in the risk of a driveway injury happening (Shepherd et al., 2010). Other built environment factors, including driveway length and the amount and type of parking provided, also contribute to the risk of driveway runovers.⁴² This research has informed subsequent guidance and standards for driveway and pedestrian access design by Safekids Aotearoa, Starship Children’s Hospital and the Accident Compensation Corporation,⁴³ Kāinga Ora,^{44, 45} and most recently, Auckland Council (via Plan Change 79 – Transport – see below) to reduce driveway runover incidents.

⁴⁰ Safekids Aotearoa. (n.d.) *Preventing driveway runovers: Ten things to think about*. Retrieved 23 July 2024 from https://media.starship.org.nz/download-infographic-driveways-10-things-to-think-about%3E%3E/Infographic_Driveways_10_Things_to_Think_About.pdf

⁴¹ Auckland Council. *Section 42a Hearing Report for Proposed Plan Change 79 – Amendments to the Transport Provisions, to the Auckland Unitary Plan*, Attachment 7 – Dr Julie Chambers, Pedestrian Safety Expert Report, pages 984-1035.

⁴² Ibid.

⁴³ Safekids Aotearoa. (n.d.) *Preventing driveway runovers: Ten things to think about*. Retrieved 23 July 2024 from https://media.starship.org.nz/download-infographic-driveways-10-things-to-think-about%3E%3E/Infographic_Driveways_10_Things_to_Think_About.pdf

⁴⁴ Kāinga Ora Homes and Communities. (n.d.). *Keeping your children safe on driveways factsheet*. Retrieved 23 July 2024 from <https://kaingaora.govt.nz/assets/Tenants-and-communities/Documents/Driveway-Safety-factsheet.pdf>

⁴⁵ Kāinga Ora Homes and Communities. (n.d.). *A guide to driveway safety for property owners* (Developed by Housing New Zealand in partnership with Safekids Aotearoa, New Zealand Transport Agency, New Zealand Police and Roadsaf Nelson

Auckland Unitary Plan (AUP)

Residential amenity and safety are relevant considerations in the assessment of MDH in both the Mixed Housing Suburban, Mixed Housing Urban and Terraced Housing and Apartment Buildings zones and the E27 Transport chapters of the AUP.^{46, 47} The residential zone provisions require consideration of residential amenity and safety as a matter of discretion.⁴⁸

The AUP currently requires a 1m pedestrian path to be provided on shared vehicle accessways serving 6 to 10 rear sites, which is allowed to be located within the vehicle carriageway and distinguished with a raised curb or different surface treatment.⁴⁹ A resource consent is required where a shared vehicle accessway serves more than 10 rear sites.

Plan Change 79 (PC79) amends this standard, and requires a grade separated (i.e. kerbed) footpath to be provided alongside a shared driveway serving four or more dwellings or rear lots, and a grade separated footpath provided from a communal carparking area to the dwellings. This pedestrian access is subject to maximum gradient standards to ensure accessibility for a range of users, including prams, wheelchairs and mobility scooters.⁵⁰ This is considered necessary to provide safe and practical pedestrian access, in accordance with the NPS-UD directive of a “well-functioning urban environment” and Policy 1’s expectation of “good accessibility”.⁵¹ Council released the Independent Hearings Panel’s decision on Plan Change 79 – Transport on 9 August 2024.⁵²

Auckland Design Manual (ADM) and best practice guidance

The ADM does not provide any specific guidance on pedestrian safety but does provide general Crime Prevention Through Environmental Design (CPTED) guidance to create safer environments through avoidance of blind corners or dark alcoves near entrances, lifts, stairwells and within carparks, corridors and walkways.⁵³ This includes ensuring clear sightlines, and well-lit routes for all shared or communal open space areas.

The Apartment Design Guidelines for Victoria recognise that entering and exiting an apartment building should be a welcoming, safe experience for pedestrians, cyclists and drivers. It recommends that pedestrian and cyclist access is prioritised and clearly delineated from vehicle access.⁵⁴

Bays). Retrieved 23 July 2024 from <https://kaingaora.govt.nz/assets/Tenants-and-communities/Documents/A-guide-to-driveway-safety-for-property-owners-brochure.pdf>

⁴⁶ E.g. *Auckland Unitary Plan*, Chapter H5 Residential – Mixed Housing Urban Zone, Matter of discretion H5.8.1(2)(a)(ii) and (iii).

⁴⁷ E.g. *Auckland Unitary Plan*, Chapter E27 Transport, Matter of discretion E27.8.1(9)(c).

⁴⁸ E.g. *Auckland Unitary Plan*, Chapter H5 Residential - Mixed Housing Urban Zone, Matter of discretion H5.8.1(2)(a)(ii) and (iii).

⁴⁹ *Auckland Unitary Plan*, Chapter E38 Subdivision, Standard E38.8.1.2 (3) and (4).

⁵⁰ Proposed Plan Change 79, Closing remarks on behalf of the Auckland Council, (8 December 2023), Standard E27.6.6(1)(b) and (c).

⁵¹ Proposed Plan Change 79, Closing remarks on behalf of the Auckland Council, (8 December 2023), Standards E27.6.6(1) and (5).

⁵² Source: <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/unitary-plan/auckland-unitary-plan-modifications/Pages/details.aspx?UnitaryPlanId=145>

⁵³ *Auckland Design Manual*, Design for Safety, Section 10.1 Residential CPTED guidelines.

⁵⁴ State of Victoria Department of Environment, Land, Water and Planning. (2021). *Apartment Design Guidelines for Victoria*, Guidance to Access, Standard (D11 or B40).

The *Kāinga Ora Ngā Paerewa Hoahoa Whare Design Requirements* expects pedestrian access to facilitate safe movement and wayfinding for residents and visitors.⁵⁵ This includes the width and design of paths, stairs and entrances to buildings. Circulation routes should facilitate wayfinding and be well defined and easily identifiable, including at night. This includes provision of signage and numbering. Kāinga Ora also recommend in their driveway safety guidance that pedestrians are provided with a safe route to the building, separated from the driveway and vehicles.⁵⁶

The *Public Housing Design Guidance for Community Housing Providers and Developers* recommends that homes are easily accessible and have clear and legible entryways, including separation between pedestrian pathways and the driveway.⁵⁷ It also specifically recommends for townhouses that any visitor access is along a route clearly demarcated and separated from any private or shared open space.

Section 35 (s35) monitoring

The s35 monitoring found that:⁵⁸

- Some forms of parking such as centralised communal parking areas are not adequately designed for pedestrian safety within the site. This suggests that the AUP is not managing on-site pedestrian safety effectively or efficiently, with respect to pedestrian access and circulation.
- Half of the developments surveyed had access footpaths located in the reversing space of cars.
- The majority of developments avoided having front doors opening directly onto a driveway.

Design observations

The following design matters have been observed by the council's Tāmaki Makaurau Design Ope (Urban Design Unit) in their technical review and monitoring of resource consent applications MDH:

- Private vehicle and pedestrian accessways serving MDH generally enable greater yield than provision of public streets. However, provision of safe pedestrian access under the operative AUP standards is difficult to achieve as there is no current requirement for dedicated pedestrian footpaths separated from driveways and parking areas.
- MDH that is reliant entirely on pedestrian access (i.e. no onsite vehicle access or parking) can result in very narrow pedestrian accessways, restricting access for the range of users that

⁵⁵ Kāinga Ora Homes and Communities. (2024). *Ngā Paerewa Hoahoa Whare Design Requirement* (Version 1.1), A3.1 Pedestrian circulation.

⁵⁶ Kāinga Ora Homes and Communities. (n.d.). *A guide to driveway safety for property owners* (Developed by Housing New Zealand in partnership with Safekids Aotearoa, New Zealand Transport Agency, New Zealand Police and Roadsafte Nelson Bays), Design Principle 2: Provide a safety route for pedestrians. Retrieved 23 July 2024 from <https://kaingaora.govt.nz/assets/Tenants-and-communities/Documents/A-guide-to-driveway-safety-for-property-owners-brochure.pdf>

⁵⁷ Ministry of Housing and Urban Development. (2023). *Public Housing Design Guidance for Community Housing Providers and Developers* (Version 2_1 web), Sections 3.4-3.6.

⁵⁸ Auckland Council. (2022). *Auckland Unitary Plan Section 35 monitoring*, B2.3 A quality built environment, page xi.

might reasonably be expected (including emergency service providers) and create potential entrapment spots.

- Increasing reliance on private accessways also means that dwellings don't have letterboxes to assist with wayfinding (as letterbox banks are located at the street due to NZ Post requirements).

Figure 50: Letterbox and site map for pedestrian wayfinding



Figure 51: Signage for pedestrian wayfinding



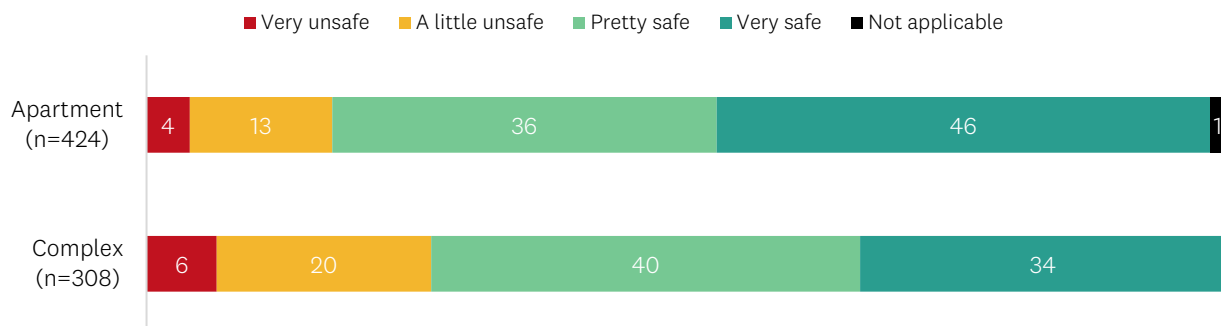
Source: TMDO, Auckland Council.

7.2 Survey results

The survey asked participants questions about their perceptions of safety and the ability for visitors to find their way around (i.e. wayfinding). Results are discussed below.

Overall, participants reported feeling safe from traffic accidents in and around their building or complex. Participants living in a complex were more likely to have reported feeling 'a little unsafe' (20%) than those living in apartments (13%). In contrast, those living in apartments were more likely to have reported feeling 'very safe' (46%) than those living in complexes (34%).

Figure 52: Perceptions of safety in and around the building/complex from traffic accidents, by type of home (%)

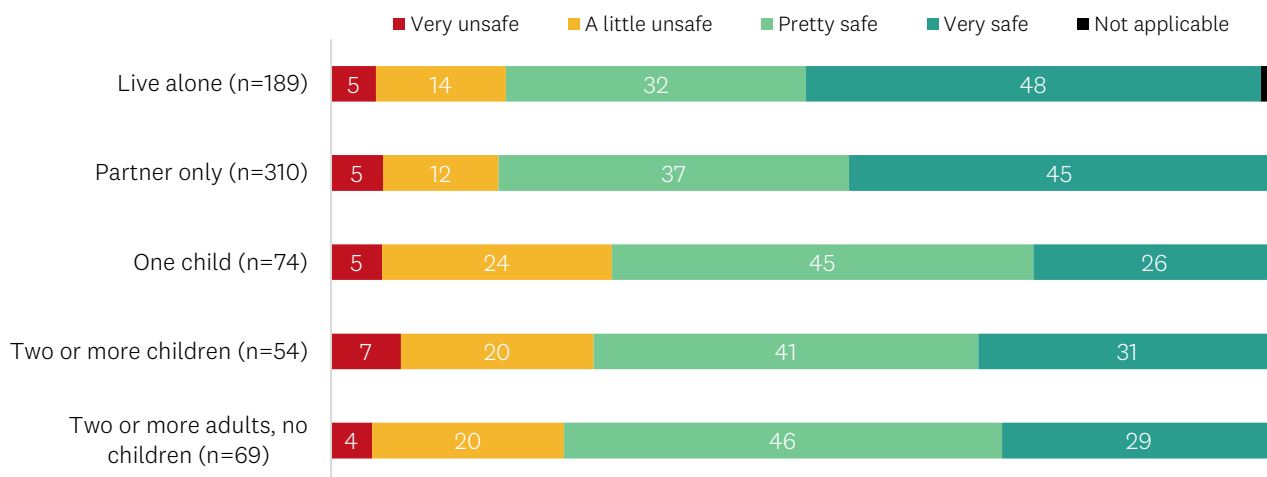


Notes: 1. Base is all the participants living in apartments or complexes.

2. 'Not applicable' describes participants without carparking or a driveway in their building/complex.

Minor differences in perceptions of safety from traffic accidents are seen across different household compositions. Participants who live alone (48%) or with a partner only (45%) were more likely to have reported feeling ‘very safe’ than those with one child (26%).

Figure 53: Perceptions of safety in and around the building/complex from traffic accidents, by household composition (%)



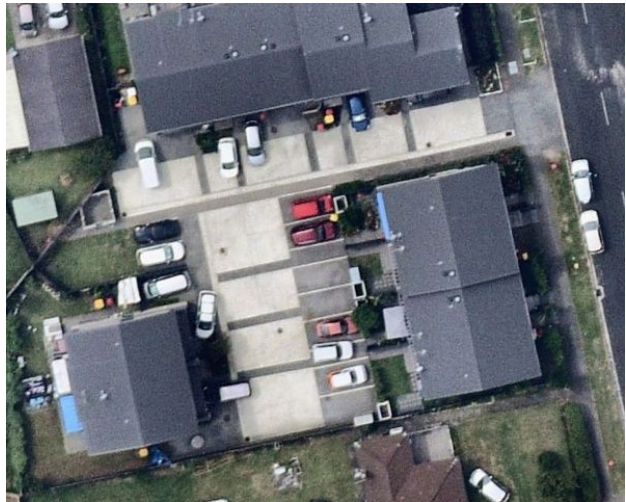
- Notes: 1. Base is all the participants living in apartments or complexes.
 2. ‘Not applicable’ describes participants without carparking or a driveway in their building/complex.

Some participants commented about pedestrian safety concerns when asked about what they dislike about their homes:

Parking spaces and constant traffic on road makes it little unsafe for kids – ‘A little unsafe’ from traffic accidents

E-scooters zooming along the footpath right outside my front door (have nearly been hit) – ‘A little unsafe’ from traffic accidents

Figure 54: Cars parked in carparking area



Source: Nearmap Urban Aerial Imagery (NZTM).

Sharing parking as the other residents drive fast while we have kids – ‘Very unsafe’ from traffic accidents

Figure 54: Cars parked in front of garages along shared driveway



Source: Google Maps.

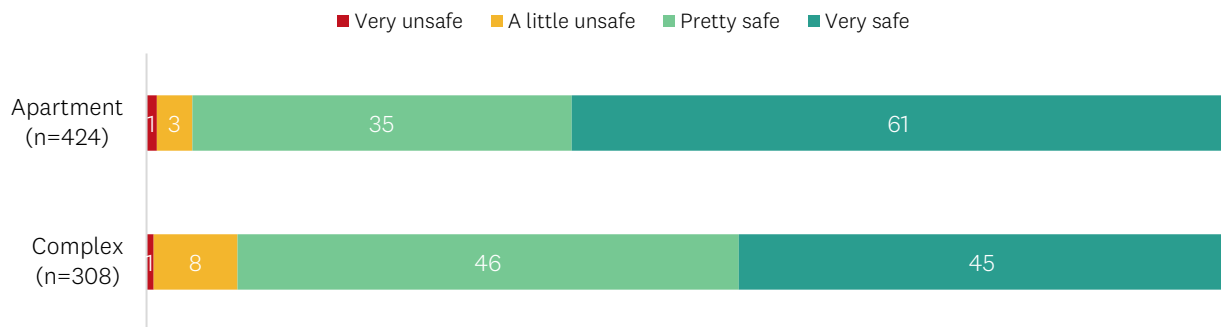
Some commented on vehicle safety concerns, often these related to their home being near or on main roads:

The speed of traffic on the road where the garage entrance to the apartment complex is located – ‘A little unsafe’ from traffic accidents

Turning out onto Mt Eden road is dangerous because of parked cars blocking line of sight, solution would be yellow lines around area or a traffic light – ‘Pretty safe’ from traffic accidents

Participants were asked about their perceptions of safety from trips, slips or falls in spaces shared with their neighbours. Only one in ten participants (9%) reported feeling ‘a little’ or ‘very unsafe’. Participants living in complexes were more likely to have reported feeling ‘a little unsafe’ (8%) than those living in apartments (3%).

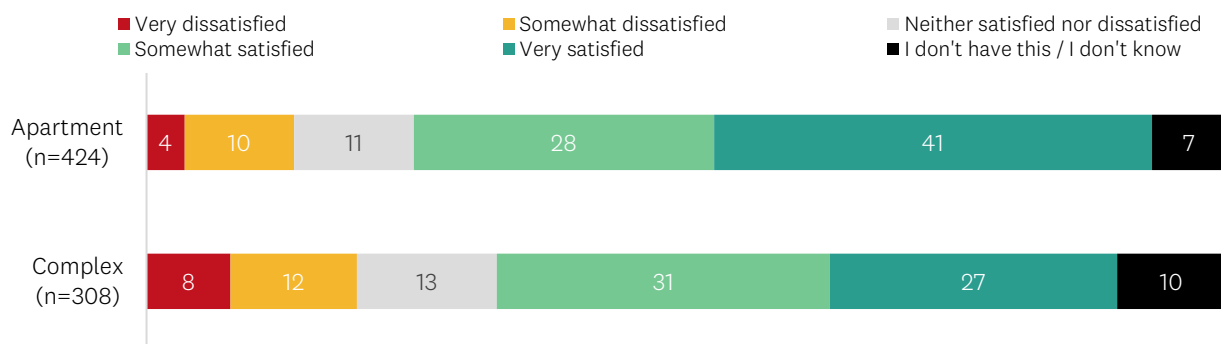
Figure 55: Perception of safety from trips, slips of falls in spaces shared with neighbours, by type of home (%)



Note: 1. Base is all the participants living in apartments or complexes.

Close to two-thirds of participants reported being ‘somewhat’ or ‘very’ satisfied with the ability for visitors to find their way around or inside their building or complex. Participants living in a complex (terraced house or duplex) were more likely to have reported being ‘very dissatisfied’ (8%) than those living in an apartment building (4%). Those living in apartment buildings were more likely to have reported being ‘very satisfied’ (41%) than those living in a complex (27%).

Figure 56: Satisfaction with ability for visitors to find their way around or inside the building/complex, by type of home (%)



Note: Base is all the participants living in apartments or complexes.

8 Mail and other deliveries

This section describes mail and delivery of other items. Regulations and best practice guidelines are presented first, followed by survey results. Participants who reported they live in an apartment building or in a housing complex were asked questions about this topic.

8.1 Regulations and best practice guidelines

Auckland Unitary Plan (AUP)

The AUP does not contain any specific standards relating to provision for mail deliveries, other than via policy that requires accommodation to be designed to meet day-to-day needs of residents.⁵⁹

Auckland Design Manual (ADM) and best practice guidance

The ADM provides guidance on mailboxes for apartment buildings,⁶⁰ including locating them adjacent to the main entrance, in a common collection area, and integrated into a wall. The public side of the mailboxes should be vandal-resistant and secure.

The Apartment Design Guidelines for Victoria recommend that mailboxes are adequate in size, durable, weather protected, located for convenient access, and integrated into the overall design of the development.⁶¹

The Kāinga Ora Design Requirements include letterbox specifications,⁶² including locating at the street frontage or laneway in a manner that is integral to the site and building circulation, and wayfinding strategy.

Section 35 (s35) monitoring

No monitoring of the provision of mailboxes or other delivery areas was undertaken.

Design observations

The following design matters have been observed by the council's Tāmaki Makaurau Design Open (Urban Design Unit) in their technical review and monitoring of resource consent applications for MDH:

- The increased reliance on private shared accessways to serve mainly terraced and duplex housing, rather than public streets, means that large banks of letterboxes are typically located at the driveway entrance, rather than outside each dwelling. It is understood that this

⁵⁹ *Auckland Unitary Plan*, Residential – Mixed Housing Urban Zone, Policy H5.3(5).

⁶⁰ *Auckland Design Manual*, Apartment Building Design, Section 7.4.1 Building entrance.

⁶¹ State of Victoria Department of Environment, Land, Water and Planning. (2021). *Apartment Design Guidelines for Victoria*, Standard (D22 or B52).

⁶² Kāinga Ora Homes and Communities. (2024). *Ngā Paerewa Hoahoa Whare Design Requirement (Version 1.1)*, A2.3 Outdoor Service Areas, A2.3.4 Letterbox.

is mainly due to the requirements of NZ Post. This can mean that wayfinding, passive surveillance over the mailboxes, security and ease of delivery of larger parcels is reduced.

Figure 57: Letter box bank at the start of a private driveway, at the public street edge, serving 35 dwellings

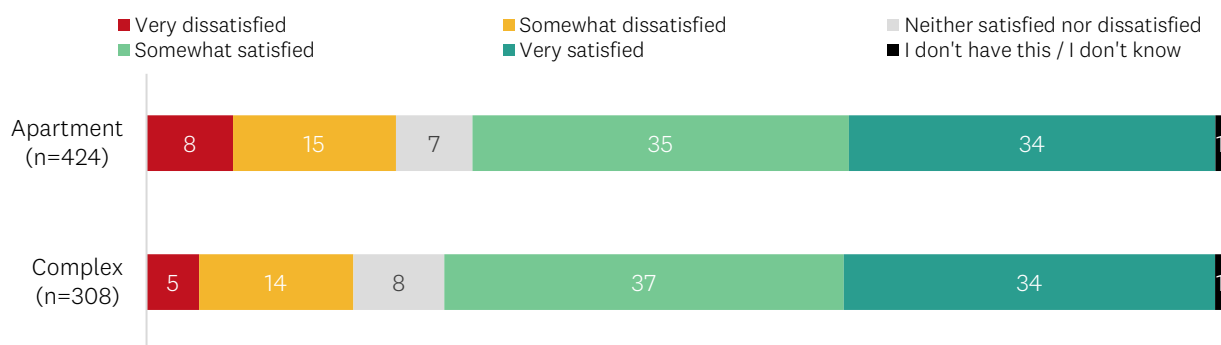


Source: TMDO, Auckland Council.

8.2 Survey results

One in five (21%) participants reported being ‘somewhat’ or ‘very’ dissatisfied with the ability of couriers and postal workers to deliver items to their homes. No significant differences were found between apartments and complexes.

Figure 58: Satisfaction with the ability for couriers and postal workers to deliver items, by type of home (%)



Note: Base is all the participants living in apartments or complexes.

Participants were asked about their perceptions of safety from theft or vandalism of mail and other deliveries. Almost half (47%) reported feeling ‘a little’ or ‘very unsafe’ and some described mail theft as something dislike about their home:

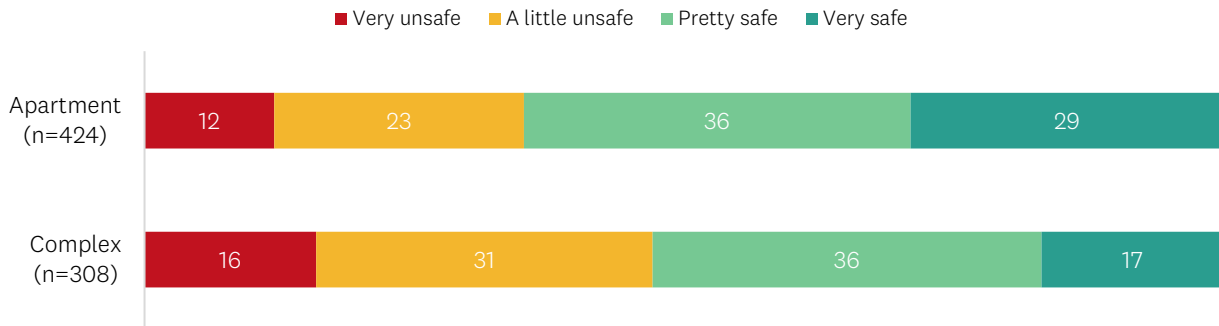
That it is not as safe as it could be – vulnerable to theft particularly of mail/deliveries – ‘Very unsafe’ from mail theft

Theft with packages being delivered and mail – ‘Very unsafe’ from mail theft

Security outside the complex. Have had thefts from car park and lobbies (mail boxes) – ‘Very unsafe’ from mail theft

As with other safety perceptions, those living in apartments were more likely to have reported feeling ‘very safe’ (29%) than those living in complexes (17%), and those living in complexes were more likely to have reported feeling ‘a little unsafe’ (31%) than those living in apartments (23%). This could be due to apartments having the potential for a centralised lobby and mail facilities with security access within the building whereas complexes typically have individual mailboxes at the street entrance.

Figure 59: Perceptions of safety from theft, or vandalism of mail and other deliveries, by typology (%)



Note: Base is all the participants living in apartments or complexes.

9 Building or complex access

Access for residents and visitors to a MDH complex or building such as an apartment can be designed and managed in a variety of ways, to improve security for residents.

9.1 Regulations and best practice guidelines

The location and design of access to a building or complex has an impact on residents' feeling of safety when using the entrance.

Auckland Unitary Plan (AUP)

The AUP provides broad discretion in the assessment of MDH to consider “residential safety”,⁶³ including an assessment as to whether the “development achieves attractive and safe streets and public open spaces by ... providing safe pedestrian access to buildings from the street”.⁶⁴

Auckland Design Manual (ADM) and best practice guidance

The ADM provides general guidance on the design of building entrances, including that the entrance has functional access, is safe and has good shelter and lighting.⁶⁵

Design observations

The following design matters have been observed by the council's Tāmaki Makaurau Design Open (Urban Design Unit) in their technical review and monitoring of resource consent applications for MDH:

- Communal pedestrian access often has limited passive surveillance or ‘eyes’ overlooking.
- It is common to have continuous row of garage doors at ground level and no active rooms overlooking accessways.
- Use of access control measures such as gates and pin codes are often a response to poor site layout.

⁶³ E.g. *Auckland Unitary Plan*, Mixed Housing Urban, Matter of Discretion H5.8.1(2)(a).

⁶⁴ E.g. *Auckland Unitary Plan*, Mixed Housing Urban, Assessment criteria H5.8.2(2)(c)(v).

⁶⁵ *Auckland Design Manual*, Apartment Building Design, Section 7.4.1 Building entrance.

Figure 60: Access control to a rear pedestrian lane serving terraced dwellings



Source: TMDO, Auckland Council.

Figure 61: Intercom and swipe card access into an apartment building

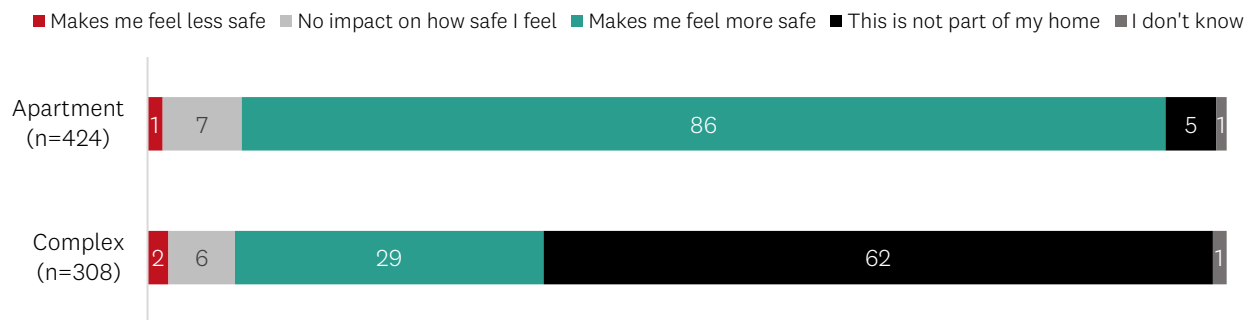


Source: Auckland Council.

9.2 Survey results

Participants were asked how the access to their building or complex (such as use of swipe cards, PIN numbers or security gates) impacts their perceptions of safety. A feature that restricts access was found to be more frequently reported by participants living in apartment buildings than by those living in complexes. Those who do have such an access feature tended to report this makes them feel ‘more safe’.

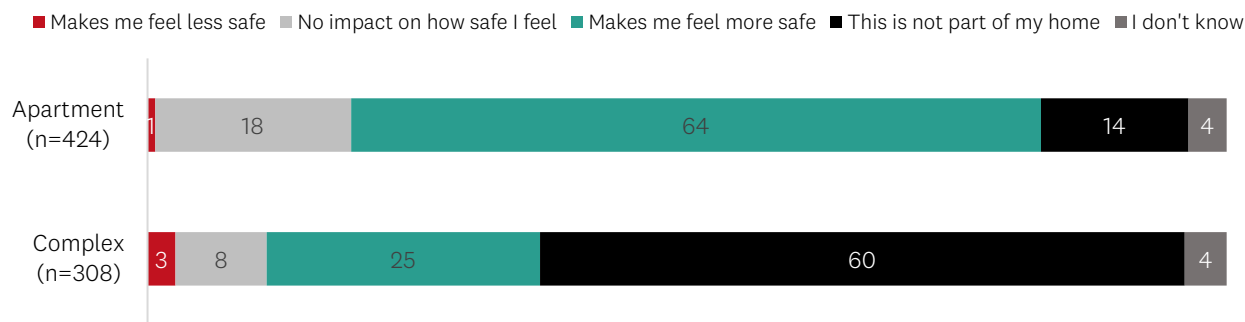
Figure 62: Impact of building/complex access (e.g. swipe card, PIN, security gates) on perceptions of safety, by type of home (%)



Note: Base is all the participants living in apartments or complexes.

Participants were asked about the impact of a video or audio intercom on their perceptions of safety. Intercoms appear to be uncommon in homes that are part of a complex, with only 36 per cent of participants living in complexes reporting having an intercom, whereas they are common in apartments (82% of participants living in an apartment reported having an intercom). Large proportions of those that do have an intercom reported that this makes them feel ‘more safe’.

Figure 63: Impact of a video or audio intercom on perceptions of safety, by type of home (%)



Note: Base is all the participants living in apartments or complexes.

Building/complex access and intercoms were mentioned by some participants as things they like the most about their homes, because of the sense of safety these provide:

Very safe area and apartment complex. Video and swipe card access and only to floors you need. Your swipe card does not get you to every floor if you don't need to be there – intercom and complex access makes participant 'feel more safe'

Can only get onto your floor of residence via lift or stairs. Outside intercom system for family /friends/tradespeople. Can buzz them into building and up to your apartment floor only. Like the security – intercom and complex access makes participant 'feel more safe'

Safety. The key system works really well that only my floor and access my floor so there is no one walking around outside my place – complex access makes participant 'feel more safe'

Others mentioned a lack of security as something dislike about their home:

No security access setup such as camera, barriers, swipe card, etc. – access makes participant 'feel less safe'

Some participants reported secure access as something that makes them 'feel more safe' but it can also be a nuisance or a point of frustration when the technology does not work as intended:

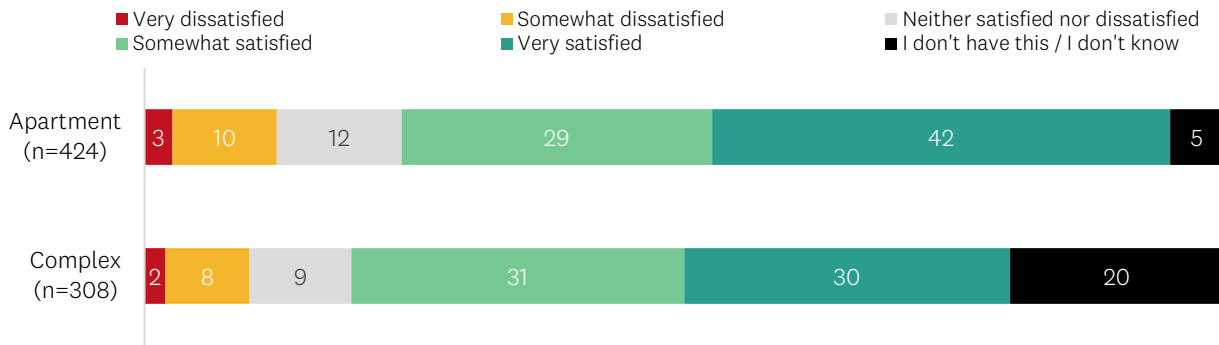
Swipe entry can be a pain when carrying things – access made participant 'feel more safe'

Need to improve security of main entries into the complex – at the moment people can easily reach over for the button to release the pedestrian gate and the fences can easily be climbed – access made participant 'feel more safe'

Fingerprint scanner constantly malfunctioning – access made participant 'feel more safe'

Participants were asked about their satisfaction with the ability for visitors and tradespeople to enter their building/complex. Two-thirds of participants overall are satisfied with the ability for visitors and tradespeople to enter their building/complex. One in five (20%) participants in a complex reported they either don't have this or don't know. This could be interpreted as these complexes lacking a gate or other entry barrier to the complex.

Figure 64: Satisfaction with ability for visitors and tradespeople to enter your building/complex, by type of home (%)



Note: Base is all the participants living in apartments or complexes.

10 Perceptions of safety from assault, harassment or theft

10.1 Regulations and best practice guidelines

Auckland Unitary Plan (AUP)

Residential amenity and safety are relevant considerations in the assessment of MDH in both the Mixed Housing Suburban, Mixed Housing Urban and Terraced Housing, and Apartment Buildings zones of the AUP.⁶⁶

Auckland Design Manual (ADM) and best practice guidance

The ADM sets out Crime Prevention Through Environmental Design (CPTED) principles for residential development including:⁶⁷

- having windows of active internal rooms overlook streets and communal spaces (passive surveillance)
- ensuring fencing and landscaping maintains visual connections between the ground floor rooms and the street/accessway or communal spaces
- ensuring pedestrian routes as the shortest, most direct route with clear lines of sight, with no dead ends or entrapment areas
- building entrances being easily visible and identifiable.

The Kāinga Ora Design Requirements have an expectation that site design and layout protects and promotes residents' safety, security and privacy.⁶⁸ This includes passive surveillance, clear and intuitive layout and connections, and a sense of ownership by demonstrating adherence to CPTED principles.

Similar broad safety and CPTED expectations are set out in the Australian design guides referenced in this report.

10.2 Survey results

Participants were asked about their perceptions of safety from assault, harassment or theft when moving through their building or complex. Overall, a quarter (27%) reported feeling 'a little' or 'very unsafe'. Participants living in apartments were more likely to have reported feeling 'very safe' (58%)

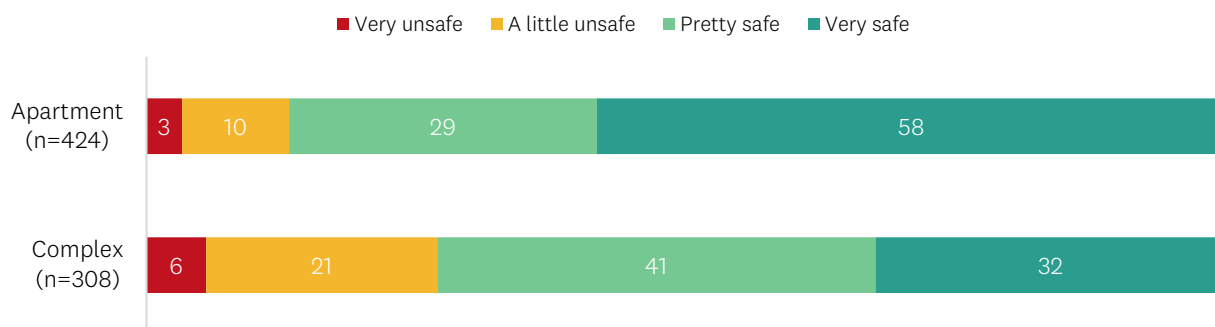
⁶⁶ E.g. *Auckland Unitary Plan*, Mixed Housing Urban zone, Matter of discretion H5.8.1(2)(a)(ii) and (iii).

⁶⁷ *Auckland Design Manual*, Designing for Safety, 10.1 Residential CPTED guidelines.

⁶⁸ Kāinga Ora Homes and Communities. (2024). *Ngā Paerewa Hoahoa Whare Design Requirement* (Version 1.1) Section A1.3 Site response: Safety, security and privacy.

than those living in complexes (32%), while participants living in complexes were more likely to have reported feeling ‘a little unsafe’ (21%) than those living in apartments (10%).

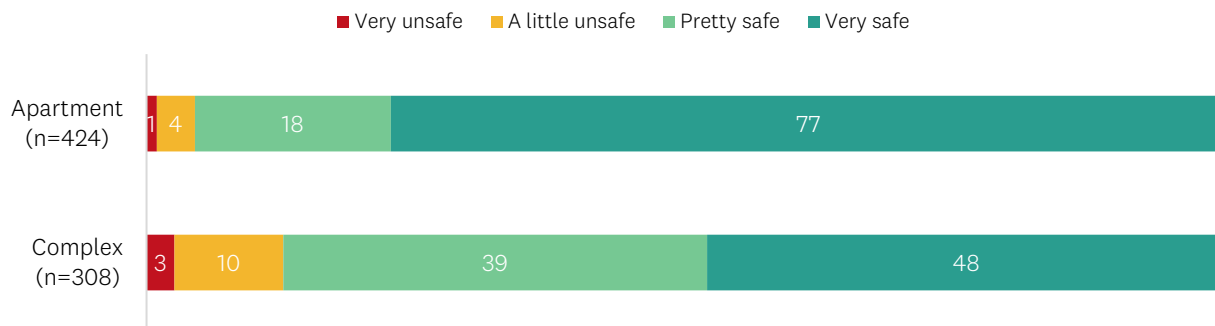
Figure 65: Perception of safety from assault, harassment or theft when moving through the building/complex, by type of home (%)



Note: Base is all the participants living in apartments or complexes.

Participants were asked about their perception of safety when inside their private home or apartment. Overall, perceptions of safety are high, with nine in ten (87%) participants reporting they feel ‘pretty’ or ‘very safe’. Those living in an apartment, again, are more likely to have reported feeling ‘very safe’ (77%) compared with those living in a complex (48%), and those living in a complex are more likely to have reported feeling ‘a little unsafe’ (10%) compared with those living in an apartment (4%).

Figure 66: Perception of safety from assault, harassment or theft when inside the home/apartment, by type of home (%)



Note: Base is all the participants living in apartments or complexes.

Sixteen per cent of participants mentioned something related to security or safety as something they like about their home, and 8 per cent mentioned something relating to security or safety as something they dislike about their homes.

Those who like the security or safety of their home mentioned different aspects of their homes that related to this theme. These comments include feeling safe because of being surrounded by neighbours:

The safety of being surrounded by my neighbours.

Security of having neighbours attached.

or because they were part of a complex/building:

It's more safe than free standing house.

It's new, I feel mostly safe in a complex environment.

Living in a complex I feel safe.

Feeling of safety being in a gated community.

Others like the 'lock and leave' lifestyle:

Living in an apartment gives us the freedom to "lock and leave" and enjoy our beautiful outdoors.

Lock up and leave security.

11 Summary

This chapter covered several aspects of homes that are part of complexes or buildings with facilities shared with neighbours.

As expected, the majority (93%) of households living in an apartment reported their building is managed by a body corporate. Households living in attached homes as part of a complex reported a variety of ways their complex is managed, with 46 per cent having a residents' association and 28 per cent a body corporate. The participants with a body corporate are significantly more likely to be 'very satisfied' with their management compared with those with a residents' association. Several reasons may explain these differences including the degree of formality required of a body corporate through the Unit Titles Act 2010 compared with a residents' association, and differences in the scope of responsibility. For example, a body corporate is responsible for the maintenance and upkeep of the entire exterior of the building, any internal common property and any commonly owned land, whereas a residents' association only relates to management and maintenance of communal areas, such as shared driveways and carparking areas.

The functioning of a body corporate or residents' association was a theme in participants' descriptions of what they like and dislike about their homes. Some enjoyed having a mechanism that managed aspects of their home, so they did not have to. Others expressed disagreement with the rules imposed by their body corporate/residents' association, and some were dissatisfied with how well their body corporate/residents' association was maintaining their shared property.

Some participants reported having shared living facilities, such as a communal outdoor living space or gym, as part of their building/complex. Fifty-eight per cent of the participants living in an apartment building or complex reported having a communal outdoor living space, making this the most reported type of shared facility. The participants who reported having any form of shared facilities generally are satisfied with these facilities. Chapter 4: Indoor Spaces for Living and Chapter 5: Outdoor Living Spaces identified several limitations of the private indoor and outdoor living spaces often resulting from the size of these spaces, infringement of household items or storage furniture, and whether there is a spare bedroom, garage or flexi-room in the home. Some of these limitations have potential to be mitigated through the provision of shared living spaces. For example, if a lounge or dining space in a home is unable to accommodate a group of visitors, a communal lounge or outdoor living space could host groups of people.

Participants were asked about their satisfaction with lighting in and around their complex/apartment building. Eighty-six per cent of participants living in apartments and 67 per cent of those living in a complex were 'somewhat' or 'very satisfied' with lighting. Participants living in apartments were more likely to be 'very satisfied' (62%) than those living in a complex (35%). Some participants commented on the amount of lighting in and around their building/complex when asked what they dislike about their home. Some of these comments described an excess of lighting, whereas others were concerned about a lack of lighting. The council has introduced changes to the AUP (Plan Change 79 – Amendments to the Transport Provisions to provide greater clarity on the type of lighting to be

provided in residential developments),⁶⁹ both for the safety of users as well as management of light spill to neighbours within a complex.

A quarter (26%) of participants living in a complex and 17 per cent of those living in an apartment reported feeling ‘very unsafe’ or ‘a little unsafe’ from traffic accidents. Households with children reported feeling less safe compared with those without children. These differences could be due to households with children being more likely to live in attached homes. The design of car parking, vehicle and pedestrian access in attached home complexes and apartments is different, as is the proximity of car spaces to pedestrian access into homes. For example, apartment buildings tend to have a basement carpark and an entirely separate pedestrian entrance into the building, whereas attached housing complexes often have shared vehicle accessways which are also used by pedestrians to travel through the complex. Plan Change 79 requires that for residential developments of four or more dwellings, pedestrian routes separate from the vehicle accessway (through a raised kerb) are provided from the public street to the front door of a home, and from a centralised parking area to the front door. This change is supported by evidence that pedestrian safety, and in particular the avoidance of child driveway runovers and death, is best achieved by separating vehicles and pedestrians.⁷⁰ Built environment factors that have been shown to contribute to driveway runover events include shared driveways, more frequent vehicle movements, properties with multiple parking spaces, driveways exiting onto quiet or less busy roads (such as cul-de-sacs) and where the driveway length exceeds 12m.⁷¹ The high volume and creative parking solutions of cars discussed in Chapter 6: Carparking and vehicle storage presents pedestrian safety risk factors that support the pedestrian safety concerns of participants.

Generally, participants reported feeling safe in their homes. A few commented when describing what they like about their home was the sense of safety from being within a secure complex or being near their neighbours.

⁶⁹ Source: <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/unitary-plan/auckland-unitary-plan-modifications/Pages/details.aspx?UnitaryPlanId=145>

⁷⁰ Auckland Council. *Section 42a Hearing Report for Proposed Plan Change 79 – Amendments to the Transport Provisions, to the Auckland Unitary Plan*, Attachment 7 – Dr Julie Chambers, Pedestrian Safety Expert Report, pages 984-1035.

⁷¹ Shepherd et al. (2010). Driveway runover, the influence of the built environment: A case control study, *Journal of Paediatrics and Child Health*, 46(12), 764-766. <https://doi.org/10.1111/j.1440-1754.2010.01835.x>