Housing For Women Over 45:

A best practice report on housing types for women at risk of homelessness in Melbourne

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Unequivocal Women's Housing: A post-occupancy study of housing types for women over 45 at risk of homelessness in suburban Melbourne.

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https://www.monash.edu/mada/research/xyx
https://schoredprojects.com.au/

Acknowledgements

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"I love my little home, it's not old, it's not new. It's my home. It's my home."

Executive Summary

This research report is focused on how architectural design can more effectively accommodate and address older women's housing needs. It identifies and includes the lived experience of older women in different housing types in the greater Melbourne area. It addresses a gap in research that considers older women's housing needs through an architectural perspective and is focused on the importance of placing women at the centre of the design process by involving them in conversations about housing types and spatial arrangements.

The main objectives of the research were to:

- Develop a more precise understanding of what older women need in terms of housing, including cultural, social, economic, and environmental contexts, by asking older women about their lived experience in housing types.
- Develop this study as a post-occupancy evaluation, and clearly identify relationships between housing types, qualitative or desired qualities, and women's housing experience.
- Analyse existing housing examples from an architectural perspective to understand their performance in these contexts and to develop strategies for high quality, trauma-informed and fit-for-purpose accommodation.

The research included input from community housing organisations, older women residents, and experts in the fields of housing, design, women's health, policy, law, and real estate.

A design guide accompanies this report, with practical design strategies that address older women's health and wellbeing, illustrating the importance of being provided with a choice in whether to participate, and a sense of belonging and social connection in their housing.

Key recommendations

- Design teams must include women with lived experience.
- A feedback loop with housing providers is vital during the design and allocation stages.
- Women in diverse circumstances need diverse, affordable housing types. More sustainable housing types are required to help increase thermal comfort and reduce the need for heating and cooling.
- The culturally specific needs of older migrant women and older women from non-English speaking countries need to be understood and integrated into housing types.
- A sense of community and belonging is encouraged through well-designed communal space and access to local community amenities.
- Landscaping is vital to creating a sense of home.
- Acoustic privacy is one of the most neglected areas of older women's housing, and should ideally be resolved during the design stages.
- There is a need for post occupancy evaluations for older women's housing types in other urban, regional, and rural areas.

Summary of findings

1 Safety and privacy are crucial qualities in housing for older women, many of whom have experienced violence.

2 For older women, noise control is an issue when living in housing communities near traffic or noisy commercial tenancies.

3 Proximity to public transport is important for older women, who may not drive or have access to a vehicle.

4 Many older women stated a preference for additional space to allow them to work, study, and to provide space for a visitor to stay — this may take the form of one-and-a-half bedroom units.

5 Older women are actively studying, with the intention of working in different employment.

6 Older women are physically active — they need a place to exercise in their homes.

7 Many older women are makers — they use power tools, make furniture, and install their own shelves.

8 Many older women stated their housing made it possible for them to work, study, exercise, and create. Before accessing housing, they lacked the space and the confidence to do these activities.

9 Older women do not necessarily want to know their neighbours — they value their privacy, while acknowledging the benefits of being close, but not too close.

10 Older women are not always keen gardeners, but many become active gardeners when they have their own housing.

11 Older women need good quality, secure and easy-to-operate gates, doors, and screens, to provide access control and a sense of agency, but most importantly to increase their perception of safety in their housing.

12 Domestic and family violence was one of the main reasons for the women having to leave their previous home. Many older women had to start over again, find furniture and household items, and create new friendships, often after periods of homelessness or transient housing. Trauma-informed design for existing and new housing improves outcomes for older women who have experienced violence.

13 Older women have a preference for multiple unit developments over freestanding housing types, for reasons to do with safety.

14 Older women's overall health and wellbeing improved when they had access to long-term housing. They attributed their positive outlook, sense of belonging, and ability to thrive to their housing stability.

Best practice design strategies for older women's housing

This table summarises the requirements for sustainable, multi-level systemic change to improve the design and construction of housing for women over 45 in Australia. The following recommendations are to assist in the development of evidence-based approaches with clear outcome measures and a strategic plan.

	Action	Reason	How to
Immediate	Evaluate other types of social and community housing (focused on older women)	To expand research data and include other housing types, and increase the number of participants for more diverse feedback	Post occupancy evaluation team to investigate types of housing using instrument developed during this research
Within 12 months	Develop design strategies for regional, rural and remote housing	Specific design strategies for regional variations, climate differences, and local contexts	Conversations with policy makers/ councils/ ministers to address local needs
	Develop design strategies specific to cultural and ethnic groups	To address complex circumstances including intersectionality, racism, and inclusion	Working group with participants to develop cultural design strategies for housing types
	Design a series of building type examples that include recommendations from report	Lack of best practice design-focused housing for older women	Invite a design team to develop proposals for funding and construction to test built outcomes
Within 24 months	Develop policy to ensure appropriate allocation of housing for older women	Lack of policy addressing older women's housing needs	Present research/design guides with policy makers to generate policies that align with needs.
	Develop a financial strategy to simplify the economic costs of building and managing older women's housing	Lack of financial modelling for this housing type that demonstrates feasibility	Engage with financial experts to create a financial strategy based on building designs

FIG 01: RECOMMENDATIONS TO IMPROVE THE DESIGN AND CONSTRUCTION OF HOUSING FOR WOMEN OVER 45 IN AUSTRALIA

1. Older women, housing, and homelessness

1.1 Purpose of this report

The purpose of this report is to provide research findings and insights that support the development and construction of quality, affordable housing for older women. The larger research project of which this is part explored the housing-related needs of older women living in housing allocated for women at risk of homelessness and sought to identify current examples of best practice building design. The following report details the project background and context, describes the research methodology, and articulates specific research findings and broader learnings from the project. The report concludes with recommendations for future projects on older women's housing for design and construction experts, housing providers and sector stakeholders.

1.2 Why this research is significant

The requirement for this research project stems from recent reports of a rapid growth in the numbers of older women at risk of homelessness in Australia. As architects and researchers, we are aware of the lack of a best practice model for older women's housing that addresses architectural and landscape design implications. Currently, there are few post-occupancy evaluations of housing for women or older women in the Australian context. This report outlines the contextual and practical issues in the evaluation process and highlights the importance of older women's lived experience, and their subjective assessment, in evaluation.

The research team perceived the need for a practical guide that translates older women's lived experiences in their housing into design strategies for future developments. From working on affordable housing projects for women, we understand that older women have needs that are often not met by generic housing developments. This research brings together older women's experience, evaluation of existing housing, and architectural and landscape focused strategies for future housing projects.

Women over the age of 45 are currently the fastest-growing population of people experiencing homelessness in Australia. Reasons for this include family and domestic violence, unsustainable rental prices, single women unable to survive on a single income or pension, carer responsibilities impacting consistent or full-time employment, and the fact that women often retire with half the superannuation of their male colleagues. Many women resort to couch surfing or living in cars and are often not included in statistics related to homelessness. Australian census figures showed an estimated 7000 women over the age of 50 who were homeless in 2016, reflecting a 31 per cent increase since 2011 (AHRC, 2019).

Single women over the age of forty-five are the focus of this research. The standard definition of 'older' adopted by the Australian Bureau of Statistics (ABS) refers to people over sixty-five years (ABS, 2015). However, research indicates that cumulative effects of homelessness, poverty and disadvantage over long periods can have health impacts from as early as forty-five years of age (Dow, Cyarto & Batchelor, 2016). This project adopts the common use of 'older' as 45 years and over, in the context of homelessness.

Women over 45 tend to have grown children and are at a different stage in their employment history — they have different needs than younger women with young families. Compared to women in a partnership, single older women experience more financial hardship, mobility and health issues, and hidden expenses in supporting adult children and grandchildren. A significant lack of appropriate and affordable accommodation also impacts single women (Petherham, 2014).

The provision of housing specifically for women is a relatively recent development in social housing types offered in Australia. The state of Victoria leads the nation in the provision, renewal, and construction of social housing and the allocation of housing for women and women-led households. The Victorian government's 2020 $A5.4 billion Big Housing Build will generate 12,000 new affordable and social homes, some of which will support older women. (Raynor, 2021) Other housing initiatives for older women in Victoria include:

- the development of cohousing models;
- the transformation of outdated rooming houses to self-contained units; and
- the generation of more affordable housing options for people at risk of homelessness.

The research team includes:

Sophie Dyring, director of Schored Projects, a Melbourne based architectural and landscape design firm specialising in the design and construction of social and affordable housing for women and landscape projects. Schored Projects is focused on sustainable and socially responsive design solutions.

Samantha Donnelly, a PhD candidate, XYX Lab Monash University, is currently researching best practice designs for accommodation for women and families who have experienced domestic violence in New South Wales. She currently teaches at the University of Technology Sydney in the Faculty of Design, Architecture and Building.

Nicole Kalms is an academic focused on design as a strategic tool for challenging gender inequity and founding director of the XYX Lab, a team of experienced design researchers exploring gender-sensitive design practices, urban space, and advocacy through real-world projects.

Naomi Stead, an academic specialising in gender-equity, oral histories, and architecture in the media, and founding member of Parlour, a collaborative network combining research, informed opinion, and resources on women, equity and architecture in Australia.

Four of the projects included in this research had architectural and/or landscape design consultation from Schored Projects. This collaboration enabled us to access preliminary design concepts, design development drawings, and connections to the service providers, and provided valuable insights into housing design for women in Melbourne. It enabled a nuanced understanding of how the housing providers, stakeholders, and residents contributed to the project outcomes during the design and construction phase.

1.3 Current research on older women and housing in Australia

An obvious solution for older women facing homelessness is to provide them with access to appropriate, safe, and affordable homes on a long-term basis. So why is this problem so difficult to solve? Women over 45 currently make up 22% of the total population in Australia, a figure that will gradually increase due to improved life expectancy (AIHW, 2018). Between 2011 and 2050, the number of people aged 65 and over in Australia will nearly double, and those aged over 84 will quadruple. These will mainly be women — a phenomenon termed the 'feminisation of ageing.' (Davidson, DiGiacomo & McGrath, 2011).

In Australia in 2020, 405,000 women aged forty-five years and over were estimated to be at risk of homelessness. This number includes 165,000 women aged 45-55 years and 240,000 women aged 55 years and over (Faulkner & Lester, 2020). Women over forty-five are one of the fastest-growing groups in the homeless population (AHRC, 2019). Considering the shortage of affordable housing, an ageing population, and the accumulated economic disadvantage experienced by women, a rapid increase in homelessness is expected (AHRC, 2019).

The Australian Bureau of Statistics defines homelessness as 'the lack of access to suitable accommodation alternatives or a current living arrangement that: is in a dwelling that is inadequate; has no tenure, or if the initial tenure is short and not extendable; or does not allow them to have control of, and access to space for social relations' (ABS, 2018). In practice, homelessness can include couch surfing, moving between temporary shelters, and living in boarding houses. The impact of homelessness on physical and mental health is unequivocal and rapid. It is also preventable. A recent study on homelessness in Australia asked eight thousand people experiencing homelessness, 'What do you need to be safe and well?'. Eighty-four percent of them stated 'housing and shelter' (Flatau, Tyson, Callis et al., 2018). Access to housing for older people benefits health outcomes, employment options, and access to services, and ultimately reduces the long-term costs for support services (Richardson & Marmot, 2003).

Throughout their lives, the inequality experienced by women is cumulative and has significant negative impacts on women's socio-economic status and ability to thrive in later years. Inequality and poverty affect women's access to work and income, education, affordable housing, health, and community services (Feldman & Radermacher, 2016). Gender discrimination, the gender pay gap, social norms, and ageist stereotypes prevent many women from maximising employment and income opportunities, burdening them with unpaid work and caring responsibilities. Although women in this age group do not necessarily have it harder than men over forty-five, they face complex situations that often relate to other people in their lives. They are more likely to experience divorce, issues with adolescent children, the death of a parent, career problems, financial strain, and low self-esteem (Thomas, Mitchell & Woods, 2018). One of the main reasons older women seek emergency housing is domestic and family violence (AIHW, 2020).

Women experience ageing and homelessness differently from men: women face more poverty and personal risk and live longer than men. These issues are compounded by the caring role women often play. Homelessness increases the risk of death for older women, increases chronic health conditions, and causes premature ageing (AAG, 2018). Women's

homelessness is often labelled 'invisible' (Petersen & Parcell, 2015) as their situations and needs may not align with the mainstream understanding of homelessness. Women are more likely to stay with friends, live in their car, remain at home in risky situations of physical, emotional, economic, or sexual violence, and are less likely to access support services (Petersen & Parcell, 2015). Women often experience housing stress for the first time after separation from or death of a partner (McFerran, 2010). These complex situations make it hard to comprehend, accurately measure, and respond to the extent of older women's housing needs. With many women facing fragile futures dependent on support from services, pension payments, and assisted housing programs, the restricted access to safe housing caused by age and gender becomes a human rights issue.

The number of older women in Australia who identify as homeless increased by 63% in 5 years (2013-2018) (AHRC, 2019), representing an overall increase of 55% in the last decade (AAG, 2018). This rapid increase in homelessness indicates three critical failures: a lack of understanding of housing needs, a lack of affordable and appropriate building stock, and a lack of policymakers prepared to remove barriers that prevent older women from accessing housing (HAAG, 2020).

There is little published research that provides evaluation and feedback on how housing helps or hinders the lives of older women and whether the provided housing types are indeed appropriate to their needs. This project builds on several key findings in previous works undertaken by the Lord Mayor's Charitable Foundation, including the Time of Our Lives? report (2016) and Greater Melbourne Vital Conversations Older Women report (2017) by looking in more depth at the architectural and design implications of housing types for older women in the Melbourne area.

1.4 Objectives of this research

We identified a lack of post-occupancy evaluation of built projects for women in Melbourne. We recognised the importance of older women's voices in evaluating their housing. The proposition underlying this project is that if more women can access safe, fit-for-purpose, long-term accommodation, then the cycle of homelessness can be effectively and economically addressed.

This report and design guide are outcomes of the post-occupancy evaluations, conversations with housing providers and older women living in various housing types, and feedback from experts in housing and ageing in place. They contribute to scholarly research and practice-based literature that combines input from the disciplines of landscape, architecture, interior architecture, health, psychology, construction, and social welfare with the lived experiences of older women residents. This contribution forms part of an ongoing study of housing for older women more broadly in Australia.

The design guide provides a series of design strategies have emerged from the research project addressing the needs of women over 45 living in metropolitan housing in Australia that. The design strategies are scaled to address different needs — to redecorate, remodel or build new — to show the diverse options available. It aims to assist community housing providers, local government councils, social housing, and construction industry experts in producing housing for older women.

2. Research context

2.1 The social housing system in Victoria

Two types of social housing exist in Australia: public housing and community housing. Both types are for people on low incomes, including those who have experienced homelessness, family violence, or other special needs. The main difference between public and community housing is that public housing is owned and managed by the government, whereas community housing is owned or managed by community housing providers. Community housing providers are generally more responsive and provide personalised tenancy management. Some specialise in helping specific groups, like women, singles, older people, or people with access issues. Community housing providers tend to spend more on housing repairs and maintenance, they can benefit from tax concessions such as the GST exemptions, and they can borrow funds more quickly than government bodies (Community Housing Industry Association Victoria, 2019; Inner Sydney Voice, 2017). They are registered and regulated by the state government.

The majority of community or social housing is public housing. However, the percentage of community housing has rapidly increased in the last 15 years, with the transfer of ownership or management of public housing from the government to community housing providers rather than an actual increase in the housing stock. In Victoria in 2019, 79% of social housing was public housing, 19% was community housing, and 2% was Indigenous community housing (AIHW, 2020).

All social housing residents pay rent, calculated at 25-30% of the total household income, including wages and payments from Centrelink and the Department of Veterans Affairs (Housing Vic, 2021) subsidised by the Victorian government. More than half (55%) of all new social housing allocations in Australia in 2019-20 were to single people (singles over and under 55 years), and at least 37% of new allocations were for families with dependent children (single parents and couples) (AIHW, 2020).

About 802,000 occupants lived in Australia's social housing network in 2019/20, up from 797,100 the previous year. Across all social housing, 62 per cent of occupants were women, and 49 per cent were aged 40 years or older. In Victoria, 68% of all social housing allocations were to residents entering the system for the first time. Thirty-two percent were for households relocating to another home. Of this second group, 95% of public housing transfers and 82% of community housing transfers were approved for a priority transfer. Households needing priority transfer include those who need to move when their home is no longer safe, or who are experiencing changes in circumstances that make the home no longer suitable, such as deteriorating health or mobility. (Homes Victoria, 2021).

Older women who require accommodation and who cannot afford private rentals can access housing provided by the social housing sector. To a certain extent, the sector offers a range of housing options to meet different budgets, spatial needs, and housing preferences. However, there is a disparity between supply and demand for everyone, including older women. Social and affordable housing for single women in an appropriate location ensuring safety, community and connection to services is difficult to access. Not all social housing is appropriate for older women facing homelessness, making it more challenging to ensure the physical and mental safety and security they need to survive.

2.2 Common housing types for social housing

There are various building types of social housing units, including freestanding individual dwellings and townhouses, apartments in multi-unit developments, rooming house accommodation in group homes or boarding houses, and accommodation tailored to specific needs. Public housing dwellings tend to be a relatively even mix of separate houses, apartments or units, and semi-detached townhouses. In Australia, community housing dwellings are more likely to be an apartment or unit (50%), followed by a separate house (30%). However, there has been an increase in apartment or unit types in the last ten years (AIHW, 2020).

The size of social housing dwellings differs depending on the location and provider. Public housing dwellings are most likely to be 3-bedroom dwellings (37%) or 2-bedroom dwellings (31%). Community housing dwellings were likely to be 2-bedroom (35%) or 1-bedroom (32%). For Indigenous public housing, most dwellings are 3-bedroom dwellings (59%) and there are very few 1-bedroom dwellings (2%); for Indigenous community housing, there are a majority of 3-bedroom dwellings (47%), then 4-bedroom dwellings (26%), with very few 1-bedroom dwellings (3%) (AIHW, 2020). These figures perhaps reflect the more rural or remote location of the housing.

As well as long-term accommodation, community housing providers may offer transitional and crisis accommodation and rooming house accommodation, depending on the resident's needs and the availability of housing. Transitional accommodation is a supported short-term accommodation program that is a stepping-stone to more permanent housing in public, community, or the private rental market. It makes up 20% of community housing tenancies. Residents in transitional housing are often there due to a change in circumstance — loss of employment, partnership breakdown, or domestic violence.

Crisis accommodation is short-term accommodation for people experiencing or at risk of homelessness following an emergency, including domestic violence or other crises. Specialist services are provided on-site in this type of housing.

Rooming houses are mainly accommodation for single people. There are over 1000 registered rooming houses in Victoria, many of which are in the inner urban areas of Melbourne. Residents rent a room in the house and share common facilities such as kitchens, bathrooms and laundries. Many owner-occupiers are converting rooming houses into self-contained units with kitchenettes and bathrooms. These serve an important role in housing single people in the social housing system. These properties house the most marginalised individuals who may have experienced chronic homelessness and need assistance to adjust to stable lifestyles (CHIA Victoria, 2021). While rooming houses are registered entities, they are not regulated by the government. Therefore, they can range from well-run premises owned by not-for-profit organisations to dodgy rooms let by unscrupulous landlords (HAAG, 2021).

For older women, particularly Indigenous older women, access to a 1-bedroom dwelling is limited, as the social housing supply tends to favour families and couples. Although this is gradually changing to reflect the shift in demographics, housing stock that addresses older women's housing needs is not increasing at the rate needed to support

the increasing number of women facing homelessness in their later years. This research reveals that 1-bedroom dwellings are not ideal for older women who regularly care for young children or family members or for working or studying from home. There is a need for 1-½ bedroom dwelling types to accommodate single older women with adequate space to lead their complex lives.

For the research, we initially selected six housing types in the Melbourne area, built or upgraded after 2017 and managed by community housing providers who allocate dwellings specifically for single women, older women, and women-led families at risk of homelessness. These projects were selected because they directly address social needs, were designed for women facing or at risk of homelessness and were designed as affordable living units using various financial and funding models.

The housing types included:

- Tiny house: Harris Transportable Housing, Launch housing (2019)
- Townhouse: Coburg Townhouses, Women's Property Initiatives (2016)
- Apartment: Bayswater Apartments, Women's Housing Limited (2019)
- Rooming house: Female Rooming House, Servants Community Housing (2018)
- Women-led Family Housing: Pakenham, Women's Property Initiatives (2018)
- Crisis Accommodation: Emerge Women's and Children's Support Network (2020).

Housing providers of all six housing types participated in the first round of interviews. However, the women-led family housing and crisis accommodation types were not included in the second round of interviews. Residents living in these units were either not over 45 or did not want to participate. The four remaining housing types included apartment, rooming house, tiny house and townhouse. These are explained below.

Housing type: Apartment

Name: Bayswater Apartments
Service provider: Women's Housing Limited
Architect: Clarke Hopkins Clarke Architects

This housing is located 27 km east of Melbourne CBD in the residential suburb of Bayswater, close to transport and commercial services, a library, and local parks. The development was completed in 2019. It includes one apartment building with 27 apartments across four levels and is managed by Women's Housing Limited. It provides women at risk of domestic or family violence with long-term accommodation. An office in the building permits the provider and family violence support staff to deliver on-site assistance and programs. Women of all ages access this housing. This development won the Social Infrastructure Development of the Year in the 2020 Urban Developer Awards and was Activity area winner and overall Knox Award winner in the 2021 Knox Design and development awards.

FIG 02: APARTMENT SECTION
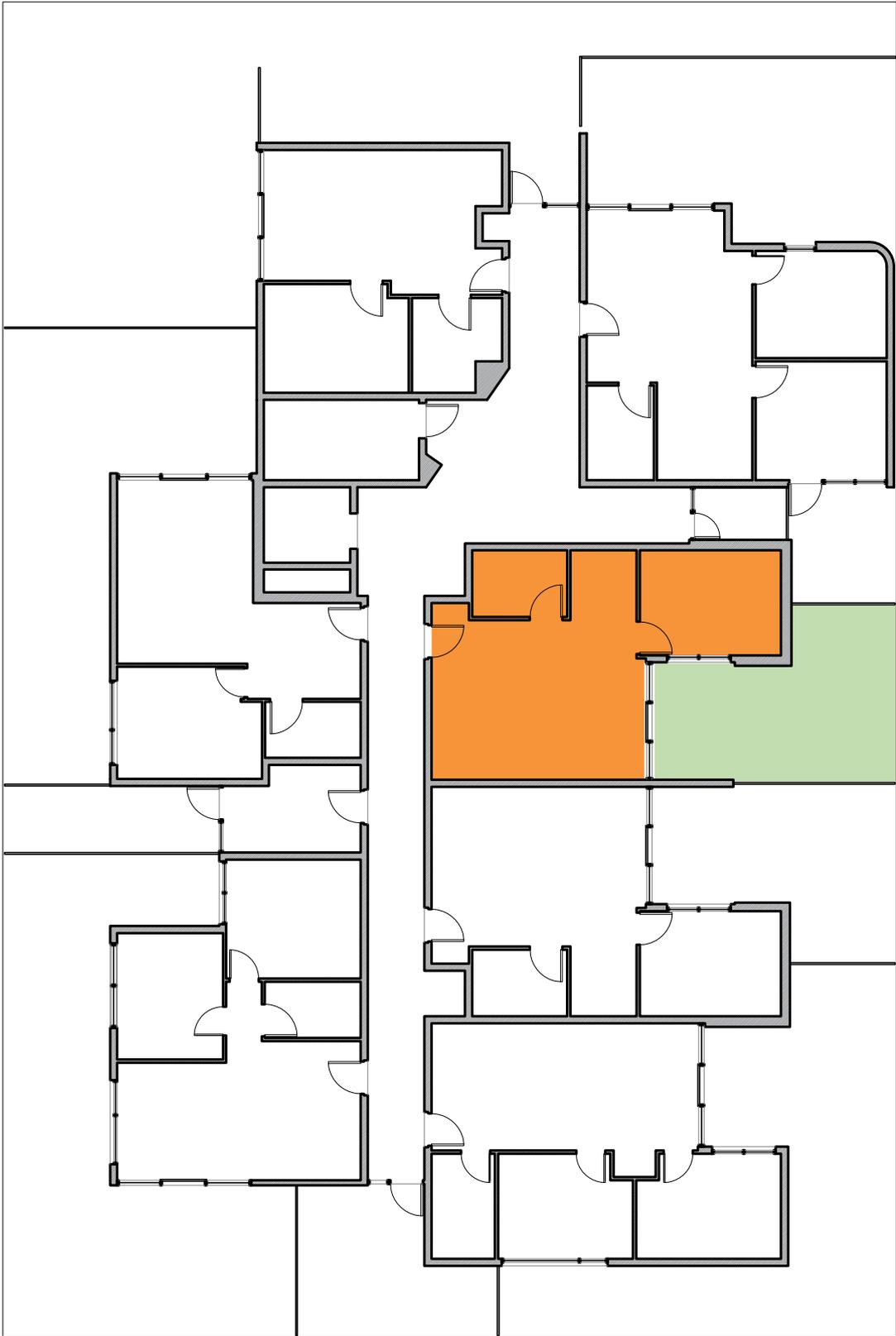
FIG 03: APARTMENT PLAN

Housing type: Rooming house

Name: Female Rooming House
Service provider: Servants Community Housing
Architect: Unknown (dwelling renovated in 2017 - consultant Schored Projects)

This rooming house is located in a freestanding dwelling eight kilometres from Melbourne's CBD. It was previously used by the Presbyterian church to house the minister, then as student accommodation. The property has seven bedrooms and two bathrooms. Servants Community Housing provides accommodation for single women without children, assisted by a live-in manager. The six residents share kitchen and bathroom facilities.
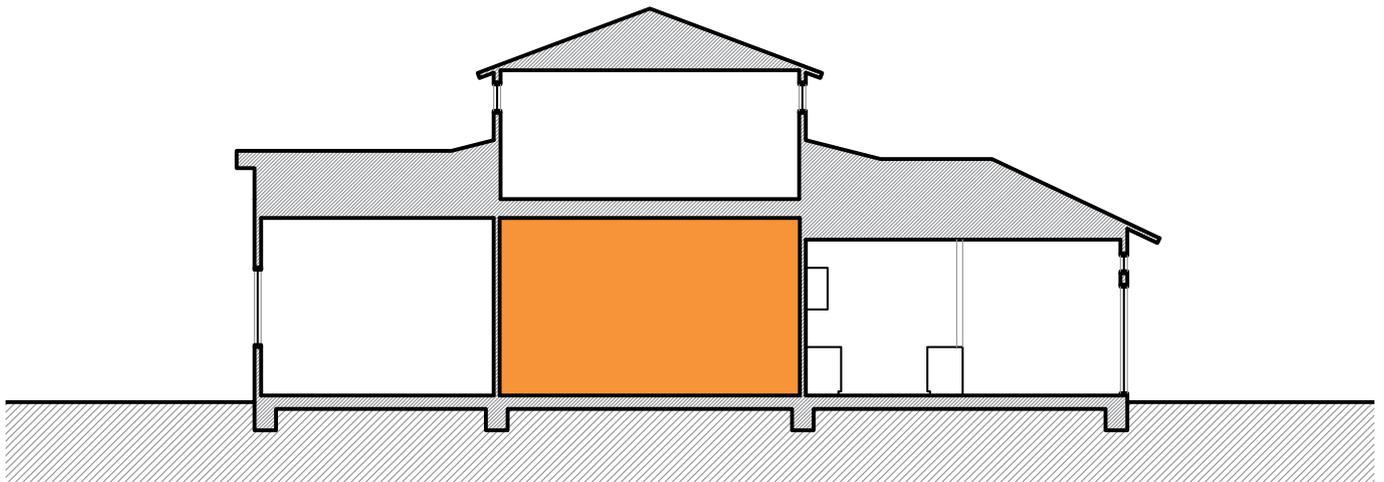
FIG 04: ROOMING HOUSE SECTION
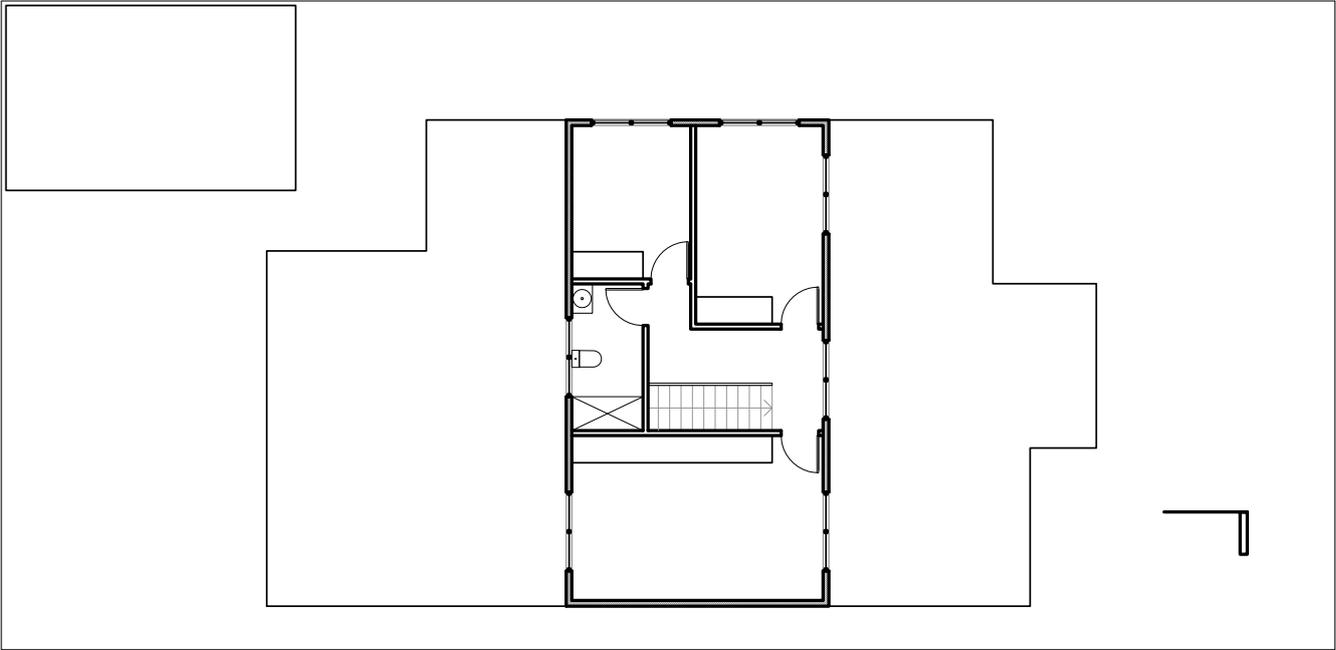
FIG 05: ROOMING HOUSE FIRST FLOOR PLAN
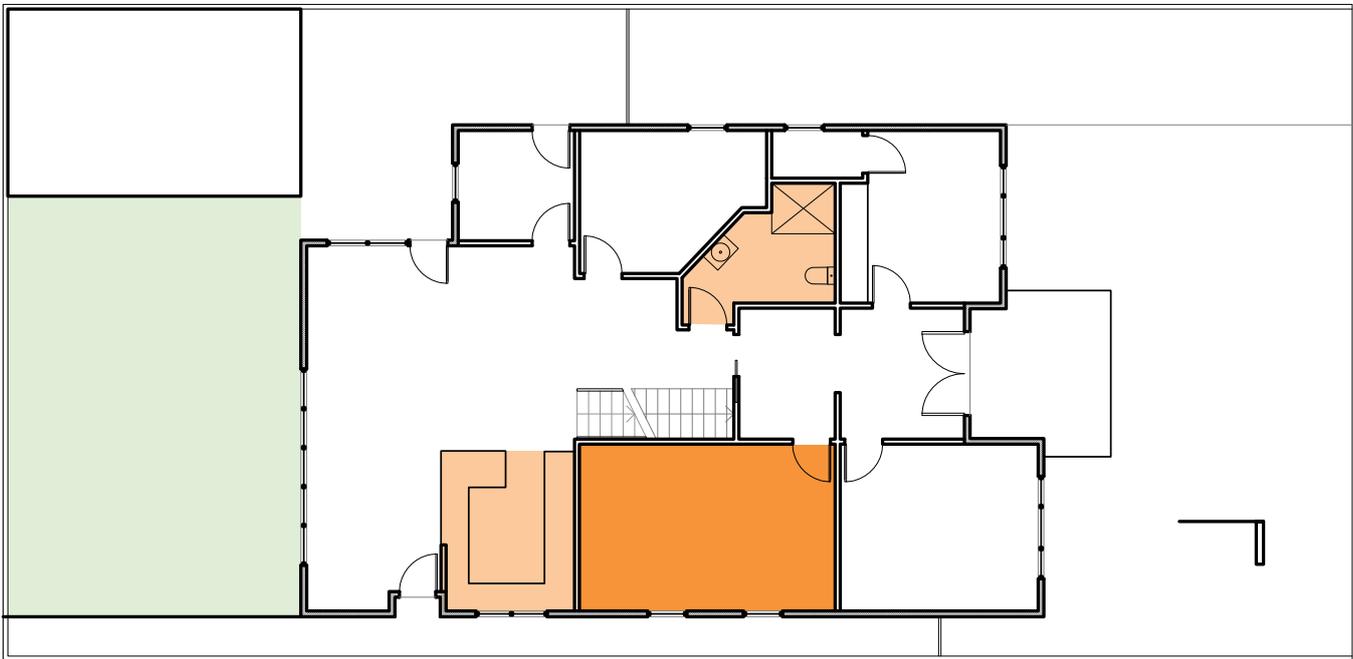
FIG 06: ROOMING HOUSE GROUND FLOOR PLAN

Housing type: Tiny house

Name: Harris Transportable Housing
Service provider: Launch Housing
Architect and Landscape architect: Schored Projects

This housing type is located on vacant VicRoads land approximately seven kilometres west of Melbourne's CBD. Self-contained transportable units can be relocated when VicRoads need the site, making this an innovative solution to provide housing for people who have experienced chronic homelessness, providing 57 units over nine sites. The project won Best Planning Idea Small Project in the 2019 PIA National Awards for Planning Excellence and Best Planning Idea Small Project for the 2018 PIA Victoria Awards for Planning Excellence.

This project is a collaborative partnership between VicRoads, Launch Housing, Department of Health and Human Services, and Schored Projects. Each unit provides a kitchen and bathroom with full-size furnishings, a loft, a dining/sleeping space, and integrated storage. Front and back verandas provide outside space, and fences enclose various-sized yards to the front and rear of each unit. Units are arranged according to each site's available space and type of community.
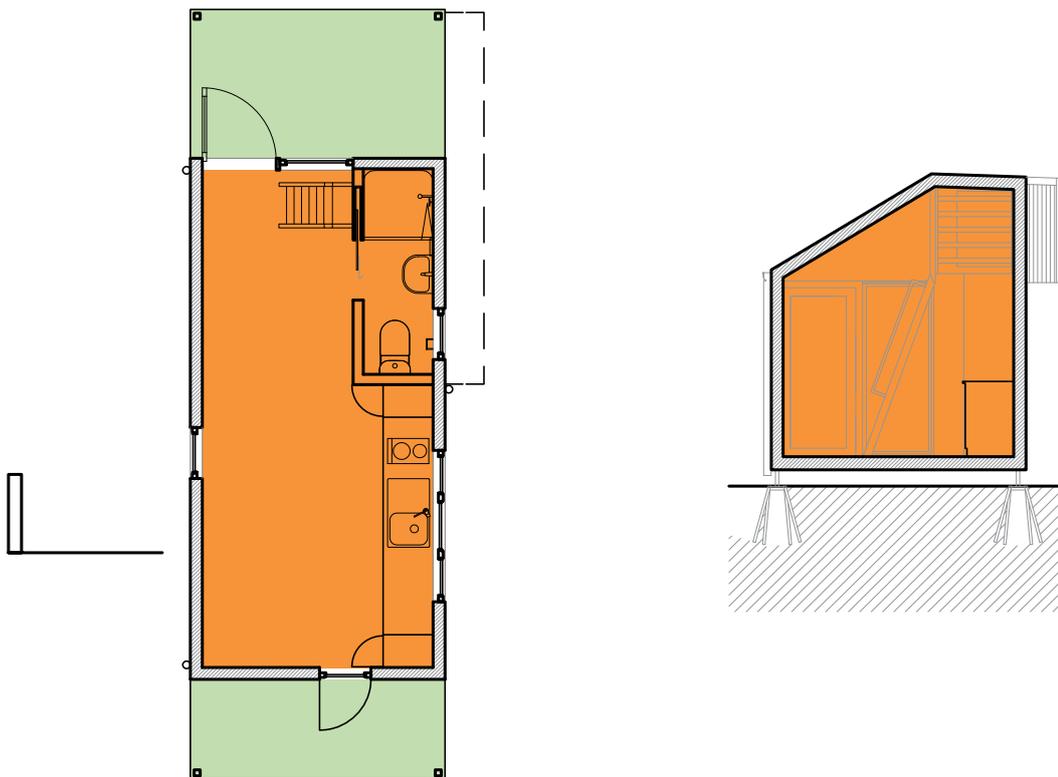
FIG 07: TINY HOUSE UNIT PLAN AND SECTION

FIG 08: TINY HOUSE SITE PLAN

Housing type: Townhouse

Name: Coburg Townhouses
Service provider: Women's Property Initiatives
Architect and Landscape architect: Schored Projects

This housing is located in a suburban area 8 km north of the Melbourne CBD and was completed in 2016. It comprises five one-bedroom and two two-bedroom units with private courtyards. It is located adjacent to a train line, close to trams, bike paths, shops and community services. Women's Property Initiatives provides accommodation for single women and women-led households. This project won an award for Leading Housing Development Project Victoria in the 2017 Australasian Housing Institute Awards.
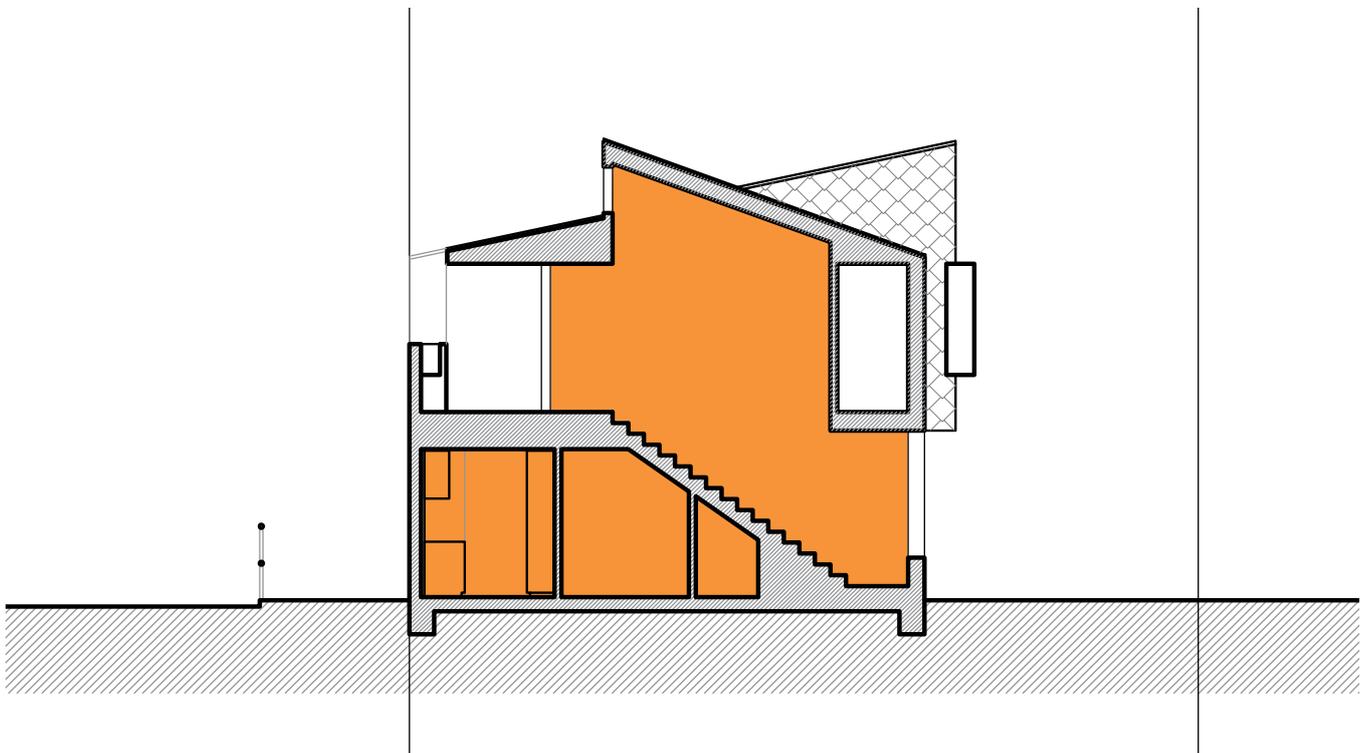
FIG 09: TOWNHOUSE SECTION
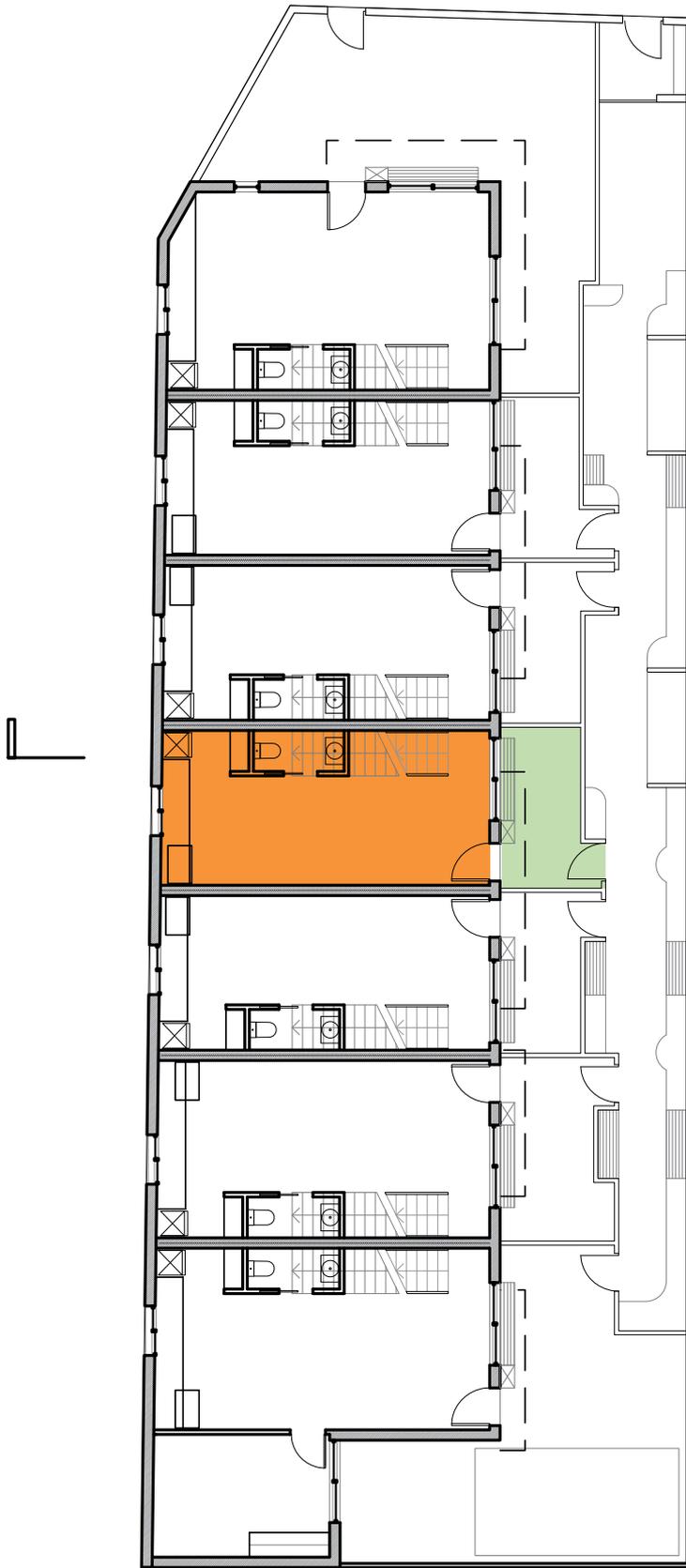
FIG 10: TOWNHOUSE GROUND FLOOR PLAN
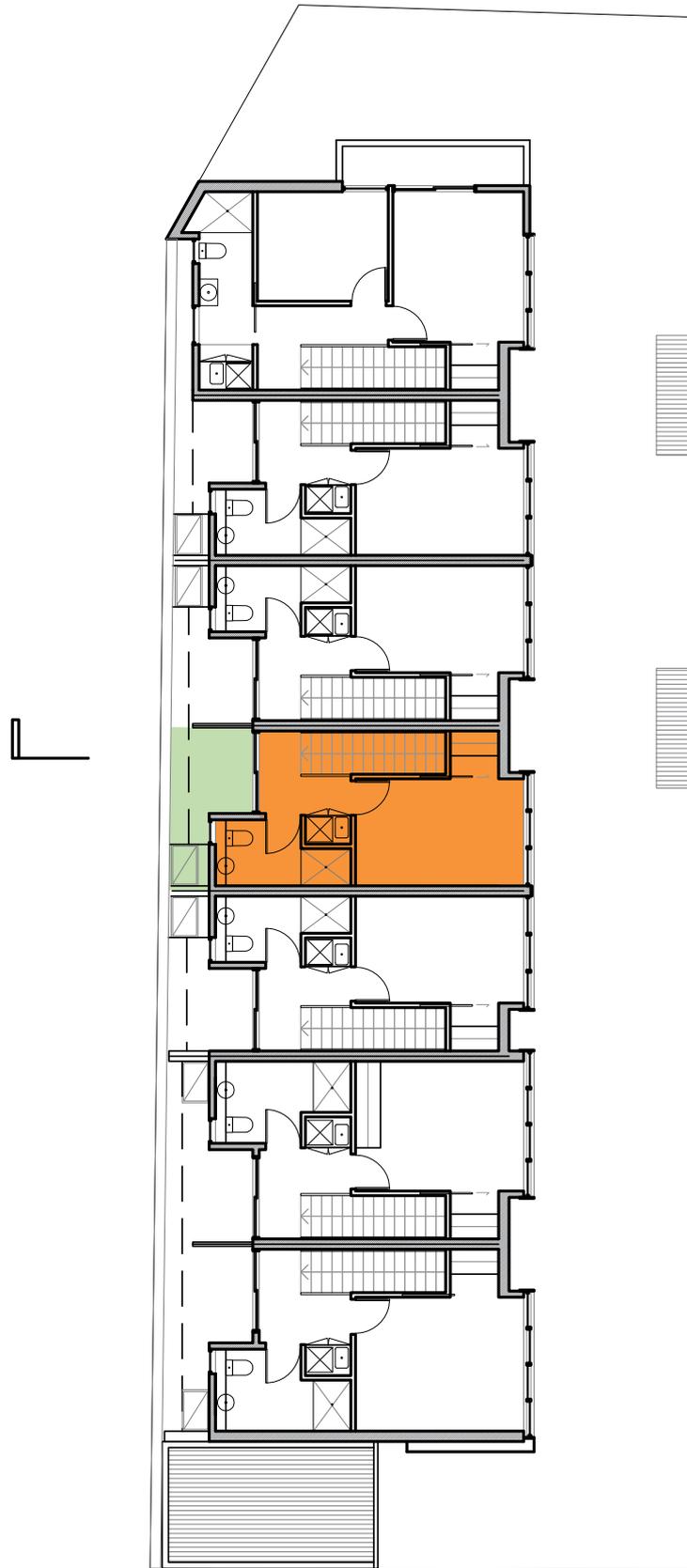
FIG 11: TOWNHOUSE FIRST FLOOR PLAN

2.3 Community housing providers

In Victoria, approximately ten registered community housing associations and thirty community housing providers manage the allocation of social housing. The majority of this housing is long-term accommodation for families and individuals who cannot afford or cannot access the private rental market. Housing associations are generally larger not-for-profit organisations that develop, own, and manage housing for those on low incomes (DFFH, 2021).

In Victoria, several providers allocate housing specifically for women. Women's Housing Limited, Women's Property Initiative, and YWCA Housing focus on providing dwellings for single women or women-headed families. Many other community housing providers, including Launch Housing and Servants Community Housing, provide dedicated housing for women within their wider demographic.

The housing included in this research is managed by four community housing providers in the Melbourne area: Launch Housing, Servants Community Housing, Women's Property Initiatives and Women's Housing Limited. Although they all provide housing for people at risk of homelessness, providers have different organisational missions. Crisis accommodation, managed by Emerge Women and a children's support network, was not included in the final analysis, but the input from the providers was included in Phase One.

Launch Housing — tiny house units

Launch Housing is a secular Melbourne-based community organisation that has delivered homelessness services and life-changing housing supports to men, women, and children since 2015. It provides a variety of housing supports, including transportable housing, youth services, rental assistance, and supported housing options, particularly for people experiencing mental health issues. Launch aims to drive social policy change, advocacy, research, and innovation in the social housing sector.

Servants Community Housing — rooming house accommodation

Servants Community Housing provides safe, affordable community housing in Melbourne's inner east to men, women, and children. Its mission is to create communities where respect, dignity, hope, and opportunity are developed through quality housing. Servants currently manage four properties with 95 residents. Unlike other service providers, Servants provides live-in house managers who support residents and connect them to the local community. Residents are provided with daily meals and access to communal spaces and services.

Women's Housing Limited — domestic violence family housing

Women's Housing Limited is a Victorian, not-for-profit organisation that provides low-cost housing to women at risk of homelessness. As a registered Housing Association, Women's Housing Limited has a diverse housing portfolio, capacity, and experience to deliver large-scale housing projects. Women's Housing Limited is committed to advocating for the housing needs of women and children and contributing to the growth of affordable housing stock.

Women's Property Initiatives — townhouse units, women-led family housing

Women's Property Initiatives is a not-for-profit, community housing provider focused on providing permanent and affordable homes specifically for women and women-led families. Their commitment to providing long-term, affordable homes, support, and advocacy for women on low incomes responds to their belief in housing as a human right. Women's Property Initiatives owns 101 homes, and manages 140 rental properties, and in 2021 completed a housing development for single older women.

Emerge Women and Children's Support Network — crisis accommodation

Emerge provides crisis and transitional housing for women and children who have experienced domestic or family violence. As the only independent specialist family violence service in Melbourne, it advocates for increased funding for short, medium, and long-term crisis and affordable housing. Many of the women and children supported by Emerge are highly disadvantaged and come from culturally and linguistically diverse (CALD) backgrounds.

3. Research methods

Data was analysed using a mixed-methods phenomenological approach. Three primary data sources included community housing providers, women over 45 currently living in housing for women, and a panel of experts from related disciplines. Semi-structured interviews, participatory engagement, and structured focus groups generated quantitative and qualitative data. The project was delivered in three phases, as described below. Monash University Human Research Ethics Committee approved this research (Project number 17576).

3.1 Timeline

Research for this project took place between February 2020 and November 2021. The table below illustrates the timeframes and associated activities.

	2020	2021	2022
JAN	**Phase One** Desktop research Interview design Ethics approval	**Phase Two** Resident interviews Photographic data collection	Report and design guide production
FEB			
MAR			Launch of design guide Melbourne Design Week workshops
APR			
MAY	Housing provider selection		
JUN		Collate interview data Extract themes Extract quotes	
JUL			
AUG	Housing provider interviews Collect architectural drawings / images		
SEP		**Phase Three** Expert panel session	
OCT			
NOV		Design guide preparation	
DEC			

FIG 12: RESEARCH TIMELINE SHOWING THREE PHASES

3.2 Research phases

The research involved three phases, described below.

Phase One: Community housing provider interviews

This first phase included the research project design, a literature review, and ethics clearance. The research design involved the selection of housing types and locations for evaluation, establishing the participants' age range, and creation of a post-occupancy evaluation instrument and semi-structured interview questions and activities.

Six community housing organisations were selected based on an existing connection with Schored Projects as an architectural or landscape design consultant on previously built projects. Three organisations provided housing for women-led families or single women. One provided accommodation primarily for people at risk of homelessness, one provided crisis accommodation for women and children leaving domestic and family violence, and one provided rooming house accommodation.

Resident participants would be over 45 years of age, based on research stating that increasing numbers of women over 45 were experiencing housing stress.

The post-occupancy evaluation instrument was based on a Resident Impact Evaluation Scale used by Wilkinson et al. (2018) in their report on post-occupancy evaluation instruments for housing for people with disability, and a similar evaluation instrument used by Toit et al. (2021) in an Australian residential aged care facility context. These two instruments evaluate the impact of the built environment in shared supported accommodation, using semi-structured interviews and structured rating forms to measure resident participation and independence, accessibility, impact, and interaction with objects in indoor and outdoor spaces in the home environment. Wilkinson's evaluation instrument worked with people with a disability, whereas Toit's worked with older people. The instrument adapted for this project focused on women over 45 and their responses to their homes. Figure [xx] shows the instrument adapted for this project.

Domain	Quality	Photographic evidence
Home-like environment	Privacy	Visual/acoustic Communal spaces
	Dignity	Luxury
	Non-institutional aesthetic	Material palette — kitchen, living, bedroom, bathroom, external spaces
	Personalisation	Soft furnishing, window coverings, artwork, trinkets, lighting, plants
Physical environment	Security	Fencing, front gate, front door, windows, landscaping, lighting
	Accessibility	Step free, door widths, weather protection, wayfinding to home
High amenity	Outlook	Views from windows (living, dining, bedrooms)
	Connection to outdoors	Window locations, door locations
	Storage	Kitchen, clothes, l'dry, linen, cleaning equipment, garden equipment, other
	Independent living	Everything required in unit
Comfort and control	Thermal comfort	Heating, cooling, ceiling fan, thermal stack
	Ventilation	Openable windows
	Affordability	Gas, electricity, water, rates
	How things work	Appliances, windows
Social inclusion	Opportunities to interact	Communal spaces

FIG 13: RESIDENTIAL ENVIRONMENT IMPACT SCALE: RESIDENT DATA

Semi-structured interviews were created for housing providers and for residents. The providers' interviews focused on broader issues of managing housing types and allocation of housing to women, and residents' interviews focused on the more intimate details of their housing from lived experience.

Key questions that shaped the housing provider interviews included:

1. Service model-related questions about the housing type: number of units, demographic of the women accommodated, allocation issues, and vacancy rates.
2. Accommodation-specific questions about communal areas, relationships between individual dwellings and the overall development, outdoor areas, and maintenance or upgrades to the properties.
3. Best practice questions about alternative or ideal housing types that positively impact older women's quality of life.

Interviews with providers were conducted during this first phase. Interviews lasted between 45 and 60 minutes and were audio-recorded, transcribed, and de-identified for analysis.

Our data analysis was guided by the Resident Environment Impact Scale principles, collating the providers' experiences according to the given domains and qualitative themes. Each provider was asked to introduce researchers to one or two women residents over 45 from their organisation who were willing to speak about their housing.

A literature review collated existing research on women's housing in Australia, older women's housing needs, housing stress for older Australians, issues of homelessness for older women in Australia, social housing in Victoria, housing types, and statistical information on gender and ageing in Australia. The project received ethics approval from Monash University during this phase.

Phase Two: Resident interviews

Phase Two participants included site visits and resident interviews and participatory exercise, data analysis, and development of initial findings. The women-led family housing and crisis accommodation providers could not provide contacts for residents who were over 45 and able to participate in the research.

Participants included eight single women between 45 and 70 years of age who lived in the housing types provided by the organisations interviewed in Phase One. The women lived in four local government areas across Greater Melbourne. They were born in five different countries — two were born in Australia — and three spoke a language other than English at home. All the participants were single, and seven women lived alone. Seven women had experienced domestic or family violence. Four of the women were currently studying when interviewed. Two of the women had pets living with them. One of the women was in paid, part-time employment, and two looked after young children within their family.

We interviewed each of the residents in a two-step process, starting with a semi-structured interview. Key questions that shaped the interviews included:

1. A short background of the resident's housing history;
2. How their current dwelling contributes to or inhibits their sense of wellbeing and their ability to live independently;
3. Their opinion on whether the housing type meets their needs, compared to other housing types, and what they would change about their housing;
4. Residents' opinions on whether their housing impacts their sense of safety, belonging, and lifestyle.

During the first interview, residents were given a digital camera and asked to respond to a set of prompt cards to photograph details of their home. Prompts included questions about how their homes provided a sense of dignity, safety, independence, and personality. In the second interview, residents explained their photographic responses and provided digital copies of the images. The images are not included in the report to preserve residents' anonymity.

Using participant-driven photo-elicitation, the control of data collection is handed over to the participants who have the freedom to choose the representation(s) most relevant to them in relation to the prompt or question (Cleland and Macleod, 2021). Participant-driven photo-elicitation empowers the participant to choose the image and to drive the dialogue about the image. Further, images seem to prompt a different kind of reflection on lived experiences in ways that narrative alone cannot. In viewing and discussing photos together, as we did in the second interview, researcher and participant actively co-construct meaning, extending the interview method to combine visual and verbal responses. Photographs also help to capture abstract ideas and encouraged women who were less skilled verbally to be able to respond and engage in the research, rather than privileging the more vocal participants.

The first interviews were 60 minutes, and the second interviews 10-20 minutes in length and were audio-recorded, transcribed, and de-identified for analysis. Emerging themes from the residents' interview responses and photographs were documented in a post-occupancy evaluation format to establish relationships between housing types and older women's observations of their housing experiences. Frequency of response types or images (number of photographs of gardens for example) and value statements were extracted as thematic codes.

Phase Three: Expert Panel session

The final research phase included the presentation of preliminary findings to an expert panel during an online session. Twenty-six experts from diverse disciplines attended the session to give critical feedback. The panel included the research participants — housing providers and residents, real estate agents and building industry experts, a women's health practitioner, mental health and ageing experts, designers, local government and social housing experts, and older women's network representatives. The research team facilitated the session with the XYX Lab.

We presented research aims, emerging themes from the interviews, and an initial evaluation of the housing types during the two-hour online session. Experts then attended two structured focus group discussions, each group was allocated an emerging theme from the research findings using a world-café method — a structured conversational process for knowledge sharing. Each group was curated by the organisers to include a woman with lived experience as a resident of one of the housing types, a housing provider representative, and a discussion leader from the project team with a set of pre-defined questions based on the data from Phases One and Two of the project. Women with lived experience were not placed in groups with the housing provider who managed their housing, to maintain privacy. Groups had equal numbers of participants, and discussions were audio-recorded and transcribed. Experts provided feedback and professional experience relating to the themes of housing and older women.

Feedback and analyses from all three research phases are incorporated in this report and the accompanying design guide document.

3.3 Limitations of this research

Within the research context of social housing, there are specific challenges associated with respectfully accessing people's experiences. The following limitations constrained the research process and scope of the project:

The limited review of housing types

An initial aim was to analyse six housing types. Although limited in number, Schored Project provided in-depth knowledge of the architectural and landscape design intentions for each housing type and access to the housing providers and documentation. Other housing types exist but are not evaluated here, including free-standing houses, terraces, semi-detached houses, duplexes, villas, granny flats, caravans, cohousing units, boarding houses.

The limited number of residents interviewed

The initial aim was to analyse the six housing types through interviews with twelve to eighteen residents in total. Two of the housing types — women-led family housing and crisis accommodation — did not have women over 45 willing to participate in the research. Of the remaining four housing types, we interviewed seven women over 45.

The limited area of research

The housing types analysed were located in the greater Melbourne area. The types of building form and materials used, climate, resident demographic, and landscape used in the urban area of Melbourne did not include regional or remote areas.

3.4 Project scope constraints

Post occupancy evaluation instruments

A post-occupancy evaluation instrument framed the housing type analysis by identifying qualitative information gathered during the interview process. The researchers developed this instrument based on evaluation instruments published by Wilkinson et al. (2018), Toit et al. (2021), and Deuble and de Dear (2014). These instruments were designed to evaluate housing for people with a disability, housing in an aged care context, and housing performance, respectively, all within an Australian context. No evaluation instrument that considered the housing needs of women, older women, or women's responses to their housing currently exists. Although it may be unorthodox to evaluate one's work, the team's interview questions, and research design ensured that participants were aware of this conflict of interest.

Restricted access to site visits

During 2020 and 2021, COVID-19 lockdowns restricted researchers' ability to visit residents in their housing. The research period was extended by twelve months to allow for site visits. Six of the seven residents were interviewed in their homes, and one resident was interviewed online. Six residents provided photographic responses to the prompt cards.

Vulnerable populations and cultural respect

Crisis accommodation and women-led family housing are important types accessed by women over 45 in the Melbourne area and, as such, an important inclusion in the research. Researchers interviewed housing providers but were not able to assess residents for these two types due to a lack of women over 45 who could participate during the interview phase of the project.

Schored Projects has worked with Aboriginal Housing Victoria to create new social housing, and researchers met with the housing providers to discuss including this as a housing type in the project. However, respect for cultural sensitivities and a need for more specific collaboration with the housing community meant this group was not included in the research scope.

4. Findings

Data collected during the three phases of research focused on the impacts of housing types and spatial organisation within the individual units and housing developments. Responses included building fabric issues, operational issues, and sensorial qualities.

4.1 Phase One findings

The community housing organisations provided an in-depth understanding of how they manage their buildings, allocate residents to vacant units, and how each housing community operates. Housing providers are often at the intersection of the initial design briefing, the management of the service, and ensuring its survival through ongoing funding and tenancy management. Many providers have extensive experience working in the housing and homelessness sector and the complexities older women face in their housing.

Supply and demand

The providers unanimously reported issues of supply versus demand for social housing generally and for older women in particular. Many providers cannot meet the demand for one-bedroom units, which is particularly an issue for single older women.

> ...the demand for one-bedrooms is huge. So if we look at it from a demand perspective, the one-bedrooms would outweigh most other ones.

Vacancy rates were similarly low, with very few vacancies reported and a constant need for more stock in all housing types. Three housing providers managed properties with diverse housing types, unit sizes, and locations within their portfolios.

> ...In our properties, [the] ones we build, we have much lower turnover in time. And once you get past that first year or so, very, very low number of vacancies.

> They are lovely little townhouses... in the beginning, more women wanted to live there than the number of units available.

Providers attributed the low turnover of residents in the townhouse, apartment, and tiny house examples to the quality of the fitout and the security of the properties' tenure. Several providers reiterated the security of tenure and access to an independent living unit within a safe community for older women.

> I think people are genuinely excited about them... "This is my long-term offer." They are happy with that; they do see it as a long-term option ... potentially, after living

there for a few years, they might need more space depending on what their situation is.

I do not think that people who live in our properties want anything different from the rest of the community. They have similar expectations around safety, quiet enjoyment and security, as far as security of tenure.

While self-contained units provide more privacy and safety for many residents, shared accommodation types, including rooming houses and crisis accommodation, provide an important type of housing for some women who are not able to live independently.

Rooming houses require significant investment from the people involved. Governments and organisations are moving away from rooming houses to make self-contained units. Rooming houses probably won't exist in 20 to 30 years. Which is not ideal for us. We need to be adaptable.

Rooming houses address the people caught in the middle, who do not quite have the capacity to live on their own. They are independent … but providing that presence and contact can be valuable for them. It would be a huge loss if we could not have that.

Research shows that older women prefer independent units to shared accommodation (Darab et al., 2018, Sydney Women's Homeless Alliance, 2017), but for older women in need of housing, rooming houses may provide an essential in-between option.

Allocation

Providers make complex decisions around which residents are allocated to their properties. This task requires an ability to match the unit to the individual; it is not simply a matter of allocating a vacant unit to the next on the resident waiting list. The immediate home environment is important for older women, who often spend more time there. Providers are aware of interpersonal conflicts in their properties and report on the difficulties of managing issues between neighbours as a large part of their work.

It is so hard to get right — I realise even more now, having just allocated the units, that it is a hard thing to get right. You do get detailed referrals, but you never

know how it will go. I do not think you can ever be 100% certain that you will get the right mix — but we try our hardest

A property of six [rooms] meant that we had to be more aware of the different personalities we were bringing into one environment. This space was closer, with more direct interaction between everyone sharing the one space.

Social distancing and constant cleaning of communal areas needed during lockdown made the management of internal spaces more stressful for providers.

The single unit is probably too small to have an individual woman, no matter what age. It is a very small space — not much living area … For older women, it is more like a bedsit rather than a proper place to live. It was not our choice either. The thought from the department is, "They are not going to be there for long, so they do not need much"… I think that is a concern.

The tiny house providers had the added complexity of physically arranging the units on a site — both a challenge and opportunity to test arrangements to suit particular groups of residents.

Look, they are definitely very close together, and I think that is why the six-unit sites work better than the larger ones. I think you are getting too many people close together when you have ten people crammed on a site. But we have not had too many complaints.

Providers of all housing types recognised the importance of pet ownership for many older women and supported the inclusion of companion animals in the townhouse, tiny house and apartment type units. Accommodating pets in the rooming house was not possible due to the complex shared environment, however a partnership with an animal shelter had been established for women who needed support. The tiny house development included fenced yards to the front and rear, designed specifically to enable pets to live with their owners. However, the number of pets being housed was less than anticipated, according to the provider.

We've only had 8 or 9 pets. Surprisingly we haven't had that many people that applied - I thought we would be

inundated with people that had dogs. There have been no issues with the pets at all.

Design quality

Providers recognised the need for good design in all housing types and were aware of the impact of good design on the residents. Quality of finishes, natural light and ventilation, and furniture arrangement in living areas helped create a sense of dignity and home for the residents. It reduced the likelihood of interpersonal conflict in shared housing types.

I think with social housing, there is no thought given to finishes, but with these bathrooms and with the units, it is quite nice their design.

Some of the older DHHS apartment blocks are old 60s style apartments. They are not well insulated and are cold and dark. These are light and airy. They have all brand-new white goods, split system air conditioning. So there have not been any complaints about the quality.

Shared accommodation providers were aware of the good first impressions created by a well-designed room and entry point. For older women with complex housing histories and often dealing with shame and isolation, the housing quality was vital.

We want the rooms to look amazing when they first walk in. We want them to walk in and feel, "This is already a room that I can feel at home in." We try to make it feel as warm and comfortable as possible. So that first experience is exceptional. That can really make or break how comfortable someone feels. Those first few days, that first interaction can make a huge difference. It is something we take pride in.

Providers stated that design-led decisions at the development stage were crucial for good outcomes and that reciprocal feedback between property managers, residents and architects was necessary for the future design of social housing.

I think something that we have learned is that in the development stage, there has not been enough communication with the tenancy and property managers to give feedback because of their experience with the

women being housed.

...talking about the positioning of architects, how they [integrate] sustainability and light... [it] would be useful for the tenancy and property managers to understand. [Then] they can explain to their tenants about airflow and why they may not need an air-conditioner. How the building has been designed to assist them with utility costs... I think feedback can work both ways.

Thermal comfort and sustainability

Providers aspired to make their developments more materially and operationally sustainable. The installation of good quality material finishes increased the longevity of interior fit-outs, with less maintenance required and better outcomes for residents.

We really push for five-star service on a one-star budget. That is from all areas, our facilities to our services to our people.

The thermal comfort of residents is essential, both for the residents' mental and physical health and from a financial and building system perspective. Recent increases in heat and extreme weather events, and COVID-19 lockdowns, have added pressure to the need for comfortable home living environments, particularly for those older than 45.

We need as housing organisations not just to provide secure and comfortable housing, but ... housing which they can afford because the energy costs are continuing to rise. And temperatures are getting hotter... we need to be able to respond in a way that is not putting the financial burden back on the tenants. That is, the big challenge for us at the moment is providing energy-efficient appliances and buildings.

All our projects now have double glazing. All our projects aim for passive solar. All our projects have solar panels. So incrementally, we are adding items. I know it is fairly small steps, and... if we could afford it, we could do a lot better. But that is what we can afford. We are getting

rid of energy-inefficient appliances, like panel heaters or things like that, and just going with AC units.

Providers are aware of increased maintenance and energy costs. They are actively working to increase the sustainability of their current housing stock by improving thermal performance and installing energy-efficient appliances.

Social sustainability

Providers strive to allocate residents who can live together and create a sense of community within their housing developments. Shared housing types involve more interpersonal contact between residents than independent housing types. Housing types with a communal area for interaction with neighbours experienced varying degrees of success, depending on the residents.

Spatial arrangements demarcated the divide between public and private areas within the housing types. However, providers reported that the public spaces were not always attractive for residents and, in some cases, caused conflict where residents took ownership of public space as their own.

Trying to give everyone autonomy over their environment — to reduce disputes.

Older women may take some time to gain confidence to interact with their housing community, depending on their circumstances.

One of the expectations was that the older women would like to interact with each other and have more of a sense of connection in the building. And that was demonstrated to be the case in the survey.

Several providers cited a need for more than one living area in shared living arrangements.

It would be good if there was a second living area. The women are either in a shared living space or in their room. In a house with seven people, it can feel very cramped. However, it helps that it is open. Lots of windows, lots of light.

The proximity of rooms in the crisis accommodation and rooming house type dwellings made a difference, with diverse personal challenges having to be managed under one roof. In some cases, proximity helped communities to work together. In others, proximity escalated the incidence of conflict between residents, causing an increased need for management for providers.

You notice a difference. In some of our properties, the rooms are almost too separate. As a result, you do not get so much of a community. It is a fine balance…You do not want it to be so separate that they will never engage because that is easy to do… It can be quite confronting for some because it feels like the rooms are close together… But they have the closest communities there. More people are engaged in activities; there are more friendships, you see more people together, they all know each other, and speak to each other… it is more positive.

Providers noted that establishing a sense of safety and belonging for older women residents was crucial for their well-being in their housing. Providers were astutely aware of the complex issues residents bring with them into the housing units and worked hard to help women transition into their new homes.

Loneliness is crippling…We often find these are people who have had no one; they have been cut off. We have had a few who have essentially been housewives their whole life. They have never worked. They have left difficult situations but they have nothing — they might know how to run a household, but they do not know how to run a life. That is a huge difference. They can meet other women and have camaraderie.

On-site support

Community housing providers who manage apartment and townhouse units and tiny houses usually worked from a centralised office, managing multiple properties and cohorts of residents. Crisis accommodation and rooming house providers have permanent on-site support for residents, although this is not always the case for these housing types.

Not many models have an on-site house manager. It is both a wonderful thing and a difficult thing. You have someone to provide presence and stability, particularly for those who have come from very unstable environments. But it can be a lot of pressure in an unstable environment, and it is hard to get a sense of space and control. It requires people to be properly

> invested; you cannot do it casually. It has to be someone who is dedicated to making it work.

The apartment housing provider reported a recent shift to integrating a dedicated staff room in each building to provide on-site support on specific days. Providers recognised the value of close contact with residents to manage building issues and conflicts more efficiently.

> We always have an office in our buildings now, whereas previously, we did not have offices. For the convenience of the staff, but also it gives the tenants the opportunity to talk with a staff member on-site... Or even just in an ad hoc way, have contact with the staff member directly rather than having to ring up or email.

> Housing is the initial stabiliser in your life. When you move in, you can start to work out your life. We provide meals, furniture, linen, towels, and internet. That works, and it is the argument against allocating people into a self-contained unit without any support.

Support for women from CALD backgrounds was particularly an issue in crisis accommodation. Providers reported high numbers of women on temporary visas of all ages who needed more complex support and stayed in their accommodation for far longer periods than Australian citizens. Crisis accommodation providers also reported increasing numbers of older women needing assistance.

> Last year we had 85% CALD women... Women on no permanent residency. They are definitely a cohort. The trouble is you have them for much longer because it takes them a long time to get their visas changed ... They have nothing, no Centrelink payments, no rights to work, no rights to study. We will hold them for a long time — there are very few exit points for a woman with no support.

Noise

Providers reported noise as one of the residents' primary pressure points, and residents' feedback reiterates this in Phase Two. Noise created by residents often resulted in complaints to the providers and was more contentious than external noise from infrastructure (transport and machinery).

> [There are] always concerns about noise. It is an older building. Anyone sensitive to noise can hear everything in the house.

> It is tenants making general noise doing things that you and I call normal stuff that annoys someone else... it is less about the property and more about who is making the noise. Whether you are friends with that person or not depends on how well they tolerate it.

A lack of acoustic protection between units was a significant issue in all housing types and recognised by providers as a resolvable issue. However, solving acoustic issues post-construction is expensive and disruptive. They commented that this issue should be addressed during the design phase to reduce costs and management problems.

> You want good sound barriers and protection. You want solid walls — you do not want to hear things between the walls, ceilings, or floors. You do not want a cheaply designed house. People have different routines. Noise is the biggest complaint. If someone is not doing well, noise irritates them. Getting that right is hard, but something that I would definitely recommend.

Findings in this first phase of the research demonstrate the complexity of housing providers' work to access, manage, maintain, fund, and innovate better service and housing for their residents and how older women residents are accommodated within their properties. Providers' expertise in the operational aspect of housing provision contributed a broader understanding of the housing system and how the respective housing types work within the sector.

4.2 Phase Two findings

Older women with experience of living in the housing types provided an in-depth understanding of how their housing affects their wellbeing and independence. Residents' responses provided fine-grained feedback on how their housing performed, what worked well, and what needed improvement from the perspective of a woman over 45. This phase demonstrated the diversity of older women living in social housing and the impact of respective housing types on their lives.

Data from the interviews included statements and photographs taken by the participants in response to prompt questions about their housing. We identified recurring statements about qualities, issues, or needs older women identified in their housing. Published

literature on older women's health and wellbeing and their housing needs supported our findings (Darab, Hartman and Holdsworth, 2018; Petersen, 2015; Older Women's Network NSW, 2020).

Resident participants were asked to provide between ten to twenty photos of their housing, taken over two weeks. The photographs collected included images of the women's living spaces, garden areas, and views of their valued objects and furnishings in their home and the environment or neighbourhood context where they live. The photos captured varying times of the day at the residents' discretion, providing nuanced information about how rooms looked in certain types of light, spatial arrangements and favourite objects or areas in their housing. Many photos were simple but evocative — some showed a chair next to a doorway, an arrangement of pot plants on a terrace, a view of a tree through a bedroom window, a collection of family photos and souvenirs displayed on the wall. These were an essential part of the research and have informed our understanding of values from the participants' perspective. We have not included the photos in the report to maintain residents' and housing providers' privacy.

Comfort

Residents reported a wide range of aspects that contributed to their sense of comfort in their housing. Older women's physical and mental states of wellbeing were affected by ambient qualities like noise level and temperature, indoor air quality and lighting levels. More abstract factors such as psychological state and sense of safety contribute to a sense of comfort and can be affected by buildings and landscaped areas.

Residents noted their physical ability to navigate stairs as they age. Although the tiny house units are single level, they have ladders to access the loft area above the bathroom. Some residents found these dangerous to navigate. Women with mobility issues were confined to rooms on the ground level for all housing types, except for apartment units where there was lift access. Stairs impact the possibility of ageing in place for older women.

> I imagine that many people in these houses cannot get up there because of the ladder. Whereas I just fall down all the time. I have socks on, and I forget.

> This is a lovely place. I am not complaining about the place, but there is no way that I could walk up and down those stairs.

Older women value the sense of order that well-designed storage brings to their housing. Residents commented on their need for storage to maintain order in their homes and the need for various types and locations of storage.

> Women can never have enough storage, my dear.

I do not have a place where I can put my bin… If I am working at the oven, I have to move it here. So, a pull-out bin or something that you can just reach in with a recycling compartment would be better.

The bathroom is frustrating.

Where can I keep my broom?

Residents commented on the difficulty of finding appropriately sized furniture to go in their housing. Residents in all housing types mentioned the work required to make a home and the complex task of choosing and arranging furniture to make a room feel comfortable. They acknowledged the scale of tiny houses and apartment units, but their comments did not refer to needing more space.

It is very hard to find a kitchen table and chairs that fit the space because it is not a huge space. We found it very hard to find a little two-seater table — we just could not figure out what to get. If we bought a big table, it would take up a lot of room, because it is all open plan. So the design does not make it easy to find the right furniture…

For the bathroom, I managed to find a skinny shelf that fits in perfectly between the shower and the sink — amazingly so. Other than that, there is no space, no storage. Storage is a big issue.

I also think you do not need the back veranda either…you could put the clothesline on the side where the sun is.

Residents appreciated access to natural light and well-designed task lighting in their homes, particularly in the kitchen areas. For older women, good quality lighting in complex task areas is important for comfort and independence.

Lighting in the kitchen is the biggest problem; you cannot see what you are washing up at night. Otherwise, I have a lot of fun and no problems.

Residents noted the relationship between the indoor and outdoor spaces provided added levels of comfort in their home and their ability to see out and to open safely out onto a garden space.

I have a little front yard. I like to open my door every morning; it does not matter how cold it is. I like fresh air. Because everything has been closed at night, the first thing I do when I wake up is open my front door and turn my kettle on.

I am really pleased with the size. I love that I have a nice garden.

Residents commonly discussed thermal comfort in terms of the need for air-conditioning in summer and heating in winter. All units were equipped with split system air-conditioning units. The apartment units, townhouses and tiny houses were double glazed. The apartment, townhouse and tiny house unit windows were protected with fixed shading designed to allow for winter solar access. All were insulated according to standards required in new buildings and had access to natural ventilation. Women did not comment on feeling uncomfortable in their housing due to temperature or humidity. However, the cost of heating was an issue in the tiny houses and townhouse units.

My bill was $399.99. for three months. And my heater is too high, it reaches the the top of the ladder, but I don't get anything at the lower level...The floors get very cold. It takes a while for the house to heat. But I don't have that on all the time because I know it'll be too costly.

According to research on older women, safety and privacy are vital for their wellbeing. In older women's housing, safety and privacy are key to providing a sense of comfort and ease in their home. Residents' feedback reflected that comfort levels depend on independence, safety, and privacy perceptions.

I do not think I could have moved to a unit on my own. I would not have felt very safe or comfortable with a freestanding unit. So I am happy that I am in a building with other people and to know that people are around.

Connection

Communal spaces foster a sense of connection by enabling conversation or group activities like gardening for older women. Alternatively, a sense of connection may be more intimate and refer to the attachment a resident makes with her garden or living areas. Connection has a complex relationship to feelings of safety, security of tenure, trust, and belonging. Design can foster good connections by providing safe, stable, easy-to-navigate spaces in older women's housing.

Visual connections between indoor and outdoor spaces are essential for older women's sense of safety and comfort. According to research, access to natural light and landscape views increases a sense of wellbeing in housing and creates spaciousness in small units.

> I like that it has windows, this is important for me, mainly because it is small. And I think it is very important that it has quite a few windows that you can look out. It makes it seem bigger, and it is your own place.

> ... There is a park not far away, and the river is not far away. I like living close to the water. It really helps me, especially when I am going through stuff.

Residents valued easy access to services and public transportation from their housing location. None of the residents interviewed owned a car, and most residents relied on public transport to connect to local community services and family or friends. This connection was considered an extension of their housing value and increased older women's sense of belonging in their community.

> The public transport system is so good in this place. This is a central place, so I have been walking and catching public transport! I never walked. When I first came here, I had a walking stick. I had so much pain that I could not walk. Now I am walking everywhere. I am amazed.

> I am a chicken, no driving, so public transport is my friend.

> I do not drive, so I am limited. So, it is a big help for me. I do not always have to rely on my family to come and collect me. I can hop on a train over there to see family.

Proximity to others in their neighbourhood is a positive and negative asset for older women. Some value being able to help others and to know they can call for help when needed.

> I can call for help. I can help others.

> I think I would find it quite overwhelming if I were in a huge tower block. We have a little bit of shared sense of community here.

As expected, and often reported, proximity in shared living arrangements (rooming houses) is a source of conflict and frustration for women.

> Seven ladies use the kitchen. That is too much.

Residents in the apartments reported increased social connections created by helping others build furniture for their units. Residents revealed that their ability to use power tools increased by living in their own housing. Residents' collaboration around the spatial arrangement and making a unit more homely was a productive social connection between neighbours, facilitated by their physical housing.

> [My mother] taught me how to use tools and things. [During] lockdown, we found that a lot of [new residents] were living [alone]. Their furniture arrived flat packed, and they had no idea how to put it together. Especially those that did not speak English or could not read. We found one sleeping on the floor on the mattress with her baby. And that was all she had. She did not have a highchair or anything. So, we went up there and spent a week putting the furniture together between babe's naps…we put together double beds, sideboards, chests of drawers, cupboards, highchairs, and cushions. Whatever.

Independence

Independence is valued by older women and is intimately connected to their housing. Financial independence and the ability to access an adequate income to support themselves was commonly reported by residents as a crucial factor in their housing choice. Physical independence is related to older women's ability to maintain their homes, continue their active lifestyles, and age in place with confidence. Independence for older women contributes to comfort, connection, privacy, and a sense of belonging.

> It has helped me that I have my own space and a quiet place to study. And I never gardened before. Now I have started to.

> I am much happier to be here. My house is my home.

Several residents, particularly those in tiny house units, stated the importance of being able to live alone. Many women had dealt with trauma in their previous housing and valued the protection that their dwelling provided.

> For me, that is really important that I do not have to live

with anyone else, especially when I am going through the things that are going through.

I just liked the look of them, and I liked the idea of not being in a unit and having my own yard, even though it is small. It is just my own little place.

it is just that I would like to live alone. I have learned to adapt, but I prefer to live alone.

Residents were aware of issues that impeded their ability to live well in their housing. Feedback on their housing types included their ability to access storage areas, ability to clean hard-to-reach surfaces and the possibility of needing in-home care at some point in their future. Independent living in this sense is closely related to safety and accessibility for older women.

There are no drawers in the wardrobes, and the rails are very high, so we cannot reach them.

I am fairly able, but how in the hell are you supposed to wash the mirror? They could cut it down to two-thirds of the size... Who is that tall that they need to look in the mirror up there?

The bathrooms are small. In my job, I go into homes and help people to shower. So I have seen some that are big and some where it is awkward... It is not easy to help someone in a small bathroom, so they need bigger bathrooms.

Noise

Noise was one of the most cited negative factors experienced by residents. There were three main types of noise experienced — noise from residents in adjoining units, noise from people outside, and noise from the environment. Residents' reactions to each noise type depended on the situation. According to feedback, noise from adjacent neighbours caused the most conflict for participants.

I hear everything, I do not care anymore, I do not complain. I just hear everyone going up and down the stairs, making cups of tea, going out in the middle of the

night, three o'clock — I hear everything. I was stressed and traumatised by a lot that was happening here.

We have all got problems, but if you want to take it out on other people, go for it. I am not going to bite back. There is always one, but what do you do? Chug on.

Residents reported frustration with a lack of acoustic insulation between units, particularly for the townhouse and apartment units. They stated noise was challenging to manage as they could not easily control it. Most residents were aware that acoustic insulation was inadequate in their housing and should be installed during construction. The tiny houses performed better due to well-insulated exterior cladding and double glazing.

Absolute sound barrier is non-existent here.

I am sure they can hear us because I can hear cupboards banging and water running. Sometimes you can hear TVs playing. If you wanted to have a private conversation, you would have to do it like a little kid — [whispering].

Surprisingly, noise from traffic was not reported by residents as regularly as noise from neighbours, despite the location of tiny houses and apartment units on arterial roads. Residents made a clear distinction between good and bad noise. Positive noise from the community or neighbours contributed to their sense of belonging and ability to participate, reduced loneliness and helped their psychosocial wellbeing. Negative noise from neighbours, traffic, machinery, and noise from commercial tenancies were often less tolerated due to the repetition or timing of the noise.

You can block your neighbours out. You learn to live with their noises, but traffic — no. And the train is a lot louder now. It echoes all the way out at night.

Personalisation

Social housing properties are often neutral and depersonalised in terms of aesthetic; however, the ability to add character is important for older women to create a sense of home. Personalisation of indoor and outdoor spaces was common across all housing types. When responding to our photographic prompt about dignity and home, residents often captured how they had personalised their house.

Residents animated their space through their choice of furniture, window coverings, wall hangings and shelving to display photos of family and friends. Several of the participants

had taught themselves to install shelving and to renovate pieces of furniture. Others had installed bookcases and wall hooks for artwork or pictures. All had added colour to their homes through personal touches.

Personalisation was most evident in the choice and placement of the furniture in older women's living spaces. The rooming house was fully furnished, but the apartment and townhouse units were unfurnished. Tiny house units were offered furnished, but the residents brought most of their furniture with them. Providers offered furniture if needed by the residents. Ultimately, it was up to women to decide how to arrange their indoor environments. Many stated this task could be improved with a furniture plan or guide to suggest ways to organise the furniture in each room.

> If it came with a furniture plan, I would understand where to put things…Maybe put a little guide together for tenants about the running costs and why we have solar, and ideas for furnishing your living space. It might be dumbing things down for some, but it may be a great help for others.

Several residents discussed their desire to create a sense of home in their unit. Many of the women had not previously lived independently, and creating a personal space was new to them.

> All my furniture came in flat-pack boxes, and I left that leaning up against the wall. It was just overwhelming starting again. I have been sleeping here in my lounge room for the last three months, and I do not know where to start. I do not know how to make this house into a home.

Residents in each housing type had access to private gardens or courtyards. They could add to the existing landscape as they wished, and several women reported discovering an interest in gardening.

> A beautiful garden makes it home and just having your things around. I do not like clutter, even though I have piles of stuff everywhere. Everything has its place.

> I put artificial grass down because it was concrete. I have planted quite a few things. It means the kids can come here to play. Somebody bought a wading pool down… we do gardening, I grow veggies. And watch the spiders in their webs.

Residents in the tiny house and apartment units stated they needed an additional room or more space to exercise, meditate, study, work, or for visitors to stay. More than half the residents were enrolled in vocational courses at the time of the interviews and stated a desire to be able to study at home.

> I would like a second room, even if it is just a little study that can be enough for a single bed, or it can be the sewing room or the craft room.

The housing types were designed for basic living requirements, but during lockdown, many residents had found a need to do more than basic living in their housing.

Privacy

Older women value privacy over many other attributes. Research shows women are happy to compromise on size if privacy can be guaranteed (Darab et al., 2018, Sydney Women's Homeless Alliance, 2017). Many residents related stories of having no privacy in their family home and no access to their own space in previous housing. There was also a need for privacy within the housing developments, particularly in shared living arrangements, like the rooming house.

> I am a private person. I like my space.

Privacy includes acoustic, visual, and territorial aspects. Having control over who sees or hears you, being able to make noise without disturbing others, and having control over your own space are basic types of privacy. Older women stated the need to choose when they are social and how they socialise. They also spoke about self-protection, cultural privacy, and the ability to retreat when required.

> I can close my door. It is a quiet space, I can lock my gate, and I know nobody is coming here. Not many people know I live here, so it is great. And if someone is coming through my gate — unless it is the middle of the night — I know it is a friend — invited.

Residents discussed the stigma they experienced around women's housing. Rooming house residents, in particular, were aware of the attitudes towards homelessness and poverty and were keen to maintain their anonymity in their housing.

> I was in shock and realised — uh-oh — I am homeless. To this day, no one knows, except my children. I do not want to tell anyone that I am homeless.

Photographs provided by residents demonstrated how they had mediated their need for

privacy by adding blinds and curtains to windows in their living areas and bedrooms to increase their control of visual access into their home. Some residents had added multiple layers of screening to windows, indicating an increased need for control. Other issues around glazed balconies were raised, citing a lack of privacy outside.

> Glass balconies are not private. There is nowhere to hang clothes.

Security and safety

Older women indicated that security was a primary concern for their sense of safety and wellbeing. For many, this security includes children and pets in their care. For their individual units, residents stated a preference for a "good security door" to their unit that could be locked so the front door could be left open in warmer weather and secure screens on windows were needed to provide a sense of security, particularly at night, and for bedrooms.

> You can see through [the front door], and while I love to look outside and not have the security grill, that would be good for security purposes.

> It is a beautiful country, but there are some odd people, and I just did not want to be alone at night. I just cannot get used to it. Even the first few nights here I was nervous. Then I realised I was perfectly safe.

In all the housing types, fencing and gates provided a layered entry between the boundary and the front door of the units, giving women a sense of added protection.

> No one can come straight to the front door, not unless someone lets you in. It is very well secured, there is a camera at the front gate.

> I had someone jump over my fence last year — but they are not easy to break into, I imagine. If you are home, you will get plenty of notice. It is not an easy place to break into.

Many residents responded to questions about security with photographs of the intercom at their entry. These gave older women the ability to choose whether to allow access to their home from the safety of their indoor environment, 'a luxury' according to some residents who had not previously had this sense of control.

> I think we can feel safe, and we can make it feel like home. It is about security — at my age now. I am obsessed with security. If you have been having trouble with housing and are over 45, this would be heaven.

Many older women interviewed had experienced violence and hardship in their lives, adding to the need for a sense of security and safety in their housing. However, the ability to escape their unit through a second point of access was necessary for some.

> Living in a place that did not have a back door was a big issue for me for some reason. There is no back door and... I felt like I had no escape.

> One of the reasons that I chose this apartment over the one upstairs is a) for the dog and b) from my point of view, I could get in, shut that, as last defence, I could go out over the fence, and I would be out in public.

Research demonstrates potential benefits of pet ownership for older women include improved physical and mental health and positive well-being (Pachana et al, 2005). Pet ownership is not always accepted in private rental properties, however housing providers included in this report welcomed women with a companion animal. Allocation for women with pets was easily managed in housing types with self-contained units and fenced yards or private courtyards.

Townhouse and apartment units were preferred by many residents, stating that freestanding housing increased their vulnerability.

> It is very, very well secured, that is why I said yes to this place. I do not think I could live in a house — not one that's freestanding ever again. Not after what my ex put me through — no way.

Security can also refer to the security of tenure. Housing security is a key factor for older women's wellbeing, as their home provides the assurance of safety and privacy they need to thrive. Precarious housing impacts mental and physical health, and residents discussed the benefits that security had on their lifestyle and their ability to study and work towards a better future.

> People who have come out of situations like me or who are going through trauma cannot work full time. Having options like [tiny houses] would reduce their bills, and

they would be able to actually heal in that time. I think these houses are good. They give you your own space. But you have to look at the financial side of it as well.

I have lived in rentals with the army. I have lived in my own home in Canberra with my husband and family. It was a big five-bedroom entertainer. Then I've lived in a caravan, and I have lived in a tent with my dog.

I want stable accommodation, so I have not been homeless. I just wanted stability.

4.3 Phase Three findings

The expert panel session produced feedback in six focus group discussions. Each group was asked to comment on a topic extracted from the research findings. Experts provided views on alternative strategies, other housing types, expanded views on managing projects, and discipline-specific experience.

The outdoor space focus group discussed the importance of private and shared garden spaces for older women and the need for manageable gardens to reduce the burden of maintenance. The provision of different types of gardens, not always green, was a suggested solution for communal areas and provided choice. Breezeways in some projects provide a protected outdoor space that is in between communal and private space and promotes informal interactions between residents.

Residents reported a desire to meet their neighbours in a communal area. Recent developments have focused on shared space for social interaction rather than gardening by providing barbecues and furniture. External engagement to help manage introductions and meetings was suggested, with assistance from volunteers or local church groups to help foster connections.

Some participants suggested that the importance of community space is overplayed in some housing projects, and the trade-off between individual and shared spaces needs to be carefully managed. Site size and money are the main roadblocks to outdoor space.

The security focus group identified strategies to provide appropriate security for older women's housing. Rooming house organisations provide a building manager who lives on-site, increasing the security for residents and addressing any conflicts between residents. Many organisations use rules about visitor access and communal spaces to maintain safety for residents. However, success depended on the residents. Mixed tenure buildings, such as the Nightingale projects, installed CCTV in communal spaces throughout their buildings and asked residents for their perspective on the difference between security and surveillance.

Experts queried the relationship between the physical housing type and tenure. Whether a tiny house might feel and work differently as transitional housing rather than long-term accommodation led to a discussion of building form and length of stay. Although all provided long-term tenure, providers reported tiny house units and rooming house leases to be more short-term than apartment and townhouse units. Reasons for participants leaving tiny house units included wanting a space for visiting family and friends and desiring a defined bedroom space. Residents also spoke of the housing community having complex needs, addictions, and transient lifestyles. These residents also dealt with more safety issues, reporting that intruders trespassed on their sites, and a lack of street lighting was an issue at night. However, residents in apartment and townhouse units also reported intruders causing safety concerns on their sites. Rooming houses lack privacy and do not provide residents with the same opportunities for personalisation of space. Difficult social interactions between neighbours in a rooming house was cited as a reason for residents wanting to leave.

Experts in the noise focus group noted that noise was the most significant source of disputes needing resolution between residents in all housing types and that it was an issue not isolated to social housing. Participants agreed that adding quality acoustic insulation to walls and ceiling, double glazing, and acoustic-rated interior linings between units should be a high priority in all social housing. The added cost of installing acoustic materials, preferably during the construction phase, was justified by the benefits of reducing disputes between residents caused by noise. Providers noted that adding insulation and acoustic seals also improved the thermal performance of the housing.

A positive strategy for managing noise was allocating residents to 'zones' within larger developments. A resident in the apartment units reported that single women lived in the ground floor units, and families with young children lived on the floors above. This strategy reduced the amount of noise experienced by single people without reducing the opportunities for interaction. Corridors, where other residents and children circulate, were also noted as sites for additional soundproofing.

The fourth focus group discussed additional space for both indoor and outdoor uses. Housing experts suggested that one-and-a-half bedroom units were a good solution for older women needing extra space. This type of arrangement provides the flexibility of using the extra space as a study, a place for grandchildren to stay, and providing extended space for the living room, and addresses the balance of providing extra space without an additional bedroom that would increase the rental cost for residents. Examples of these units exist in recent developments by participant organisations in Geelong and Beaconsfield.

Providers also noted that the obligation older women might feel to have visitors stay could be managed by not having a second bedroom. Many residents had likewise stated a desire for a single bedroom unit to discourage long term visitors. Providers reported the wear and tear on housing where long term visitors were an issue and the danger posed by having mattresses on the floor. Open plan kitchen and living rooms also created problems of overcrowding with visitors.

In some apartment developments, larger balconies provided additional space. These were protected by the overhanging structure above, providing practical, open space for women, and making their indoor spaces seem more expansive. This strategy was a successful solution and less costly than building larger units.

The storage focus group discussed various scales and locations of storage required in older women's housing. Suggestions included: frequently accessed objects requiring different storage to rarely used items; communal storage — for example, gardening or cleaning equipment — could be integrated into a location accessed by all residents, as for cohousing models; the production of a simple guide could help residents store their belongings appropriately.

The sense of order and improved safety afforded by good storage solutions improves the performance of women's housing and is a vital element in trauma-informed housing. For this reason, open shelving should be used with discretion, as cupboard doors help control the visual information in a room. Other suggestions included a bump-in space to temporarily store furniture for women moving in and out of their unit — most likely in an apartment development.

Finally, the personalisation focus group discussed the benefits for housing organisations in allowing pets and personalisation. More stable tenancies and longevity of tenure ensured a win-win for both residents and providers. Providers noted the importance of allowing budget for personalisation where possible. Some allowed contingencies for curtains or blinds in their units or a paint colour choice for the front door. Many residents chose a doormat for their entry that added a personal touch.

Residents discussed the importance of 'hanging pictures' in making their unit feel like home. Picture rails or fixed hooks installed during the construction stage would reduce possible damage to the wall linings and encourage residents to display their art and photos.

Many organisations provide a welcome pack for residents who may arrive without personal items — some include a mop, broom, bucket, tinned food for the cupboard, and fresh fruit and milk to help them settle into their home.

5. Conclusion

This report documents the lived experience of women over 45 in different housing types in Melbourne, with input from community housing providers who work with women's housing. This work addresses a gap in research that considers older women's housing needs through an architectural perspective and post-occupancy evaluation of existing housing units to build on evidence-based research.

The project has revealed older women's need for a sense of belonging and social connection, but always with the ability to choose to participate. It highlights the aspects of their housing and outdoor spaces that provide feelings of safety and privacy. It also studies the ways that women personalise their space with furniture, landscaping, personal belongings, curtains, and screens.

The research confirms older women's preference for good access to outdoor space and establishes that older women do not always wish to actively participate in gardening activities. It also confirms the benefits of pet ownership for older women, with an added dimension of considering how the pet's space intersects with the older women's living space.

More broadly, this report has provided a deeper understanding of older women's housing precarity and the positive effects of access to well-designed housing on women's health and mental wellbeing. It promotes good architectural design that addresses older women's housing needs by placing older women at the centre of the design process and involving them in conversations about housing types and spatial arrangements.

Well-designed housing that addresses the needs of older women can have long term benefits for their health, wellbeing, and outlook, and this dramatically increases the social value of the investment. Older women deserve good quality homes; their needs are not complex, and good design should be for everyone, not just for the privileged few.

	Action	Reason	How to
Immediate	Evaluate other types of social and community housing (focused on older women)	To expand research data and include other housing types, and increase the number of participants for more diverse feedback	Post occupancy evaluation team to investigate types of housing using instrument developed during this research
Within 12 months	Develop design strategies for regional, rural and remote housing	Specific design strategies for regional variations, climate differences, and local contexts	Conversations with policy makers/ councils/ ministers to address local needs
	Develop design strategies specific to cultural and ethnic groups	To address complex circumstances including intersectionality, racism, and inclusion	Working group with participants to develop cultural design strategies for housing types
	Design a series of building type examples that include recommendations from report	Lack of best practice design-focused housing for older women	Invite a design team to develop proposals for funding and construction to test built outcomes
Within 24 months	Develop policy to ensure appropriate allocation of housing for older women	Lack of policy addressing older women's housing needs	Present research/design guides with policy makers to generate policies that align with needs.
	Develop a financial strategy to simplify the economic costs of building and managing older women's housing	Lack of financial modelling for this housing type that demonstrates feasibility	Engage with financial experts to create a financial strategy based on building designs

FIG 01: RECOMMENDATIONS TO IMPROVE THE DESIGN AND CONSTRUCTION OF HOUSING FOR WOMEN OVER 45 IN AUSTRALIA

Potential areas for further research and funding for the Foundation:

- Post occupancy evaluations for older women's housing types in other urban, regional, and rural areas.
- More specific research in designing housing that protects older women in climate emergencies and future climate changes.
- Investigating the culturally specific housing needs of older migrant women and older women from non-English-speaking countries to help foster a sense of belonging.
- Designing more diverse, affordable housing options for older women.

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Appendix

- Ethics approval
- Interview questions – Community housing providers
- Interview questions – Residents
- Explanatory statement – Community housing providers
- Explanatory statement – Residents
- Prompt card questions
- Expert panel topics and questions
- Expert panel presentation slides

Note: Resident photos and all interview transcripts have not been included for privacy reasons.