

Creating improved housing outcomes: Liveable medium-density housing summary report

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 Funded from the
Building Research Levy



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ISSN: 1179-6197



Acknowledgements

We would like to thank the residents who completed the online survey that informed this research and also the territorial authority staff who took part in focus group sessions. Their perceptions and experiences of MDH and surrounding neighbourhoods was invaluable in understanding and communicating liveability findings.

In addition, we would like to thank the BRANZ staff who contributed their insights as this project was designed and delivered and also the Urban Advisory's expert contributors and collaborators who assisted during various phases of this research, including Alastair Upton, Brendan Judd, Simon Opit and Hattie Young.



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BRANZ Study Report SR435

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Reference

Allen, N., O'Donnell, G. and Kennerley, T. (2020). *Creating improved housing outcomes: Liveable medium-density housing summary report*. BRANZ Study Report SR435. Judgeford, New Zealand: BRANZ Ltd.

Abstract

Medium-density housing (MDH) is an increasingly common housing typology as New Zealand's towns and cities respond to growth challenges, yet little is known about the success or otherwise of past and present MDH developments. Specifically, opportunities exist to better understand the degree of liveability being achieved by MDH developments and how this contributes to the wellbeing of residents, neighbours and wider communities.

This report summarises the findings of four research reports (Allen & O'Donnell, 2019a, 2019b, 2019c, 2019d) regarding MDH liveability in New Zealand. Findings are intended to inform the building and construction industry, developers, industry practitioners and policy makers at the national and local levels, enabling the settings necessary to consistently design and deliver liveable MDH.

Keywords

Medium-density housing, MDH, liveability, dwelling liveability, neighbourhood liveability, urban liveability, liveable cities.



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Executive summary

This report is the final of five research reports commissioned by BRANZ to understand the degree of liveability currently being achieved by medium-density housing (MDH) developments across New Zealand and how such liveability could be improved. It includes the findings from four earlier phases of research (Allen & O'Donnell, 2020a, 2020b, 2020c, 2020d) to provide a stand-alone summary of work undertaken on MDH liveability to date.

The compilation of research in this way provides a comprehensive picture of MDH liveability from the perspectives of those planning for it, authorising it and living within it. This information will enable the building and construction industry to design and deliver and policy makers at the national and local levels to create the regulatory settings necessary to promote liveable MDH for all New Zealanders.

Key insights

With that in mind, the following key insights from each of the four phases of the BRANZ MDH liveability research project are collated below.

Phase 1: Insights from the MDH liveability and wellbeing literature review (Allen & O'Donnell, 2020a)



INSIGHT 1

There is no commonly used definition of liveability in New Zealand

INSIGHT 2

Liveability outcomes need to be considered across scales (dwelling, neighbourhood and urban)

INSIGHT 3

Liveability generally refers to place, while wellbeing refers to people

INSIGHT 4

There is a need for a better method of evaluating how MDH typologies may affect liveability

Phase 2: Insights from the liveable MDH legislation and regulation review (Allen & O'Donnell, 2020b)



INSIGHT 1

New Zealand's current legislative and regulatory framework may not be in step with the transition towards higher-density housing typologies

INSIGHT 2

Specific liveability requirements do not exist in one place within the legislative and regulatory framework applicable to MDH

INSIGHT 3

Building and planning legislation and regulation appear to have the greatest influence on MDH liveability

INSIGHT 4

There are differences between how territorial authorities address MDH liveability within their unitary, district and city plans



Phase 3: Insights from the liveable MDH focus groups
(Allen & O'Donnell, 2020c)



INSIGHT 1	INSIGHT 2	INSIGHT 3
There is a lack of consistency between territorial authorities regarding approaches to ensuring liveable MDH	Housing delivery tends to rely on historical trends as opposed to likely future demand	The current consenting framework does not adequately promote liveable MDH
INSIGHT 4	INSIGHT 5	INSIGHT 6
Greater integration and alignment is needed between MDH-related legislation and regulation	There is a perceived need for government leadership and intervention to achieve MDH liveability	The current nature of the development industry may promote profit over liveability

Phase 4: Insights from the liveable MDH residents' survey
(Allen & O'Donnell, 2020d)



INSIGHT 1	INSIGHT 2	INSIGHT 3
Those MDH residents who defined liveability considered it to mean 'the ease of living in a place'	Dwelling liveability is important but so too is neighbourhood liveability	Satisfaction with MDH was high
INSIGHT 4	INSIGHT 5	INSIGHT 6
MDH is largely considered to be as liveable as stand-alone housing	Factors to consider when designing liveable MDH include indoor environmental quality, privacy and parking	Owner-occupier and renter experiences are different and not always directly comparable
INSIGHT 7	A range of housing solutions to meet the needs and preferences of MDH residents is required	

Research themes

The total of 21 key insights were further analysed and refined into four research themes. These research themes transition across all four phases of work to pinpoint specifically what the common challenges and opportunities currently are for delivering liveable MDH in New Zealand as a starting point for developing actions to address them. The research themes are as follows.

- THEME 1** | There is no commonly used definition or understanding of the term liveability. This makes it difficult to gauge the degree of liveability of MDH being delivered in New Zealand at the current time.
- THEME 2** | Discrepancies exist between the actual and perceived impact of the Building Code on MDH liveability.



THEME 3 | Acceptance of MDH as an alternative housing typology is growing in New Zealand, making it increasingly important to ensure the liveability of MDH through clear leadership.

THEME 4 | A more robust evidence base is required to inform the design, regulation and delivery of MDH in New Zealand.

Recommendations

From the analysis of the key insights and research themes, a small number of recommendations emerged. Actioning these recommendations will improve the liveability of MDH being designed and delivered in New Zealand to the benefit of future owners and inhabitants and wider communities.

RECOMMENDATION 1

That a definition of MDH liveability is developed at a national level, along with the identification of what constitutes good liveability outcomes.

RECOMMENDATION 2

That further research is undertaken to understand, at a greater level of detail, specifically what ability the Building Code has to influence the liveability of MDH. At the same time, other mechanisms for achieving MDH liveability (such as plans prepared under the Resource Management Act) are explored.

RECOMMENDATION 3

That further engagement is undertaken with industry stakeholders to clarify the leadership and promotion of a liveability agenda for MDH in New Zealand.

RECOMMENDATION 4

That industry stakeholders and research institutes work together to address the information gaps identified through the course of this research project.

Overall, the research indicates that the liveability of current MDH in New Zealand is generally acceptable at the dwelling scale. There are, however, opportunities to do better. These opportunities can be realised by actioning the recommendations identified in this report. In this way, MDH in New Zealand can be designed and delivered to meet the needs of the people who live in it (both now and in the future) and be accepted by New Zealanders as an alternative to traditional stand-alone housing.



1. Introduction

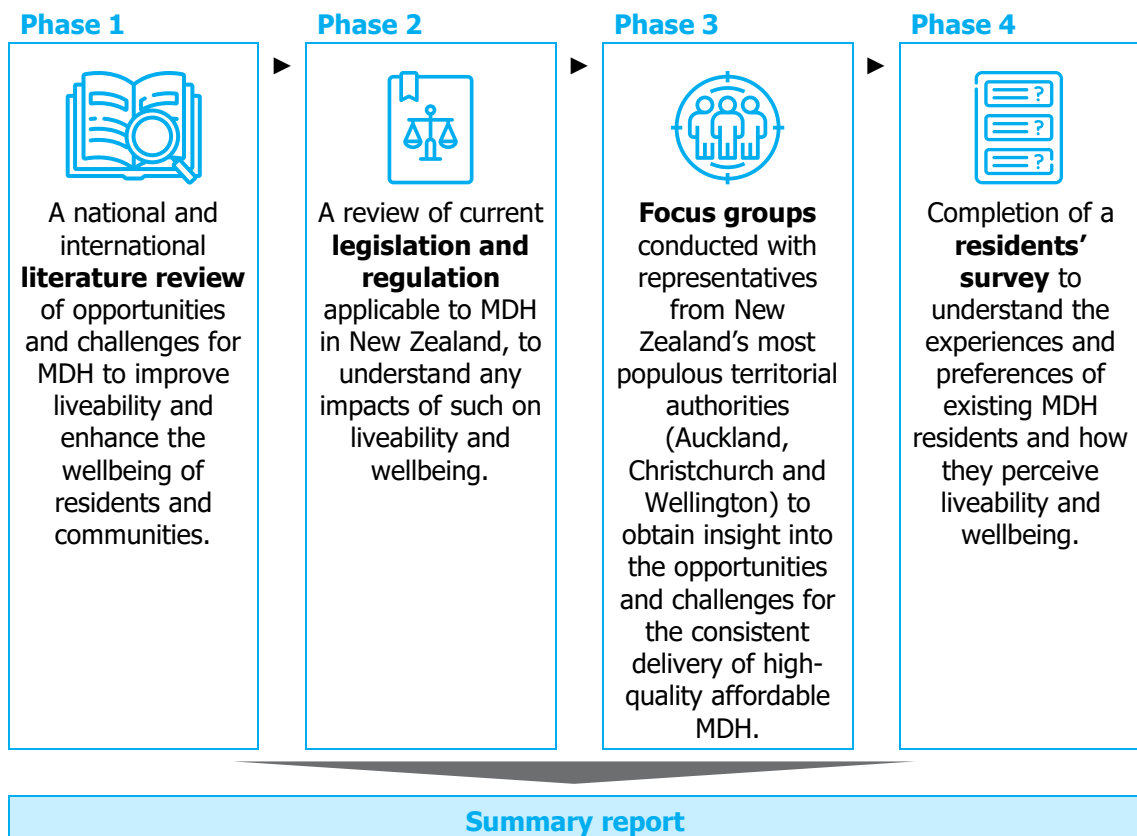
In 2017, BRANZ commenced a research programme focused on medium-density housing (MDH). This programme was designed to provide background information regarding MDH in the New Zealand development context, along with a suite of tools to enable the construction industry to build liveable MDH. It also sought to ensure that MDH in New Zealand would meet the needs of the people who live in it and be accepted by wider communities as an alternative to traditional stand-alone housing (BRANZ, n.d.).

In order to ascertain whether MDH is meeting the needs of its inhabitants, it is important to gauge the liveability of current MDH developments across the country. This will enable an understanding of the ability of this form of development to contribute to wider social, economic, environmental and cultural wellbeing. This is particularly topical given the strong focus of the current government on achieving wellbeing for all New Zealanders, as evidenced by initiatives such as the Wellbeing Budget 2019 (The Treasury, 2019), the Living Standards Framework (The Treasury, 2018) and the reinstatement of wellbeing into the purpose of local government under the Local Government Act 2002.

To this end, BRANZ launched an MDH liveability project to answer two questions:

**How liveable is the medium-density housing we are building?
How can we do better?**

The MDH liveability project was then divided into four separate phases to address the above research questions. For each phase, a research report was produced. These phases of work included:





1.1 This report

This report summarises the research findings from each of the four earlier research reports produced as part of the BRANZ MDH liveability project (Allen & O'Donnell, 2020a, 2020b, 2020c, 2020d). It provides a stand-alone synopsis for readers, collating key insights into one document before refining these into four research themes and recommendations. Together, it is intended that this information is used to provide a baseline understanding of how liveable current MDH in New Zealand is and how we can improve it.

This summary report is therefore structured as follows:

- Key insights from each of the four earlier research reports are collated (section 2 of this report).
- Research themes are identified and discussed (section 3 of this report).
- A conclusion is provided where the project research questions are answered and recommendations provided (section 4 of this report).

For the purposes of this report, medium-density housing is defined as multi-dwelling units of up to 6 storeys (Bryson & Allen, 2017).



2. Key insights

Key insights from each of the four phases of the BRANZ MDH liveability research project are collated below.

Phase 1: [Insights from the MDH liveability and wellbeing literature review \(Allen & O'Donnell, 2020a\)](#)



INSIGHT 1	There is no commonly used definition of liveability in New Zealand	The absence of a clear definition means that there is no common understanding of what liveability means and how it could be improved within the context of MDH in New Zealand. Development of a common definition of liveability would be useful in guiding future efforts to secure good liveability outcomes for MDH.
INSIGHT 2	Liveability outcomes need to be considered across scales (dwelling, neighbourhood and urban)	Since the emergence of the term 'liveability' after the Second World War, it has evolved from considering liveability at the individual dwelling scale to the neighbourhood scale to the wider urban scale. This progression and the interrelationships across this scale need to be understood and considered when seeking to improve MDH liveability, either through detailed design, construction or policy settings. What may represent good liveability outcomes at a dwelling scale, for example, may not have such a positive impact from a neighbourhood or urban liveability perspective.
INSIGHT 3	Liveability generally refers to place, while wellbeing refers to people	The term 'wellbeing' has become increasingly popular in New Zealand with the release of a suite of government documents to guide and measure societal progress within a wellbeing framework as opposed to a financial framework. In the built environment, wellbeing has focused on aspects such as human health (physical and mental) as impacted by housing and the spaces people inhabit. It is possible that more emphasis may be placed on the relationship between wellbeing and the built environment in the current political climate, and further research on this subject may therefore be beneficial.
INSIGHT 4	There is a need for a better method of evaluating how MDH typologies may affect liveability	Similarly to the need for a common definition of liveability as identified in Insight 1, it would be beneficial to establish a consistent method for evaluating the liveability of MDH for residents, neighbours and wider communities. This would allow a thorough analysis of MDH liveability issues across towns and regions, with a view to improving liveability outcomes from the dwelling to the urban scale.



Phase 2: [Insights from the liveable MDH legislation and regulation review \(Allen & O'Donnell, 2020b\)](#)



INSIGHT 1	New Zealand's current legislative and regulatory framework may not be in step with the transition towards higher-density housing typologies	New Zealand's main centres are experiencing growing levels of residential intensification in response to urban growth pressure. This includes a transition from low-density stand-alone housing to medium-density and high-density typologies, including MDH. However, the current legislative and regulatory framework does not appear to be keeping pace with the need to ensure the liveability of MDH. This is evidenced by the fact that, throughout the legislative and regulatory framework in New Zealand, there is no specific reference to the term 'liveability' and few references to higher-density housing typologies.
INSIGHT 2	Specific liveability requirements do not exist in one place within the legislative and regulatory framework applicable to MDH	The broad nature of the legislation and regulation identified as being relevant to MDH liveability highlights the fact that specific liveability requirements do not exist in one place. This results in a complex web of legislation and regulation, likely to provide challenges to the building and construction industry (including property developers, architects and planners) and policy makers in terms of understanding, designing, building and regulating liveable MDH.
INSIGHT 3	Building and planning legislation and regulation appear to have the greatest influence on MDH liveability	The high-level analysis of legislation and regulation undertaken as part of this research indicates that the building and planning legislative and regulatory frameworks have by far the greatest influence on MDH liveability. This includes the Building Code and the unitary, district and city plans prepared under the Resource Management Act. Any future changes to the current legislative and regulatory framework affecting MDH liveability would therefore be best targeted at those organisations responsible for building and planning-related legislation and regulation. This includes the Ministry of Business, Innovation and Employment and territorial authorities responsible for unitary, district and city plans prepared under the Resource Management Act.
INSIGHT 4	There are differences between how territorial authorities address MDH liveability in their unitary, district and city plans	Reviewing the unitary, district and city plans of six of New Zealand's most populous territorial authorities indicates that there are differences between how these planning regulations address MDH liveability. It is possible that these differing approaches may also extend to territorial authorities beyond the six reviewed for the purpose of this research.



Phase 3: **Insights from the liveable MDH focus groups**
(Allen & O'Donnell, 2020c)



INSIGHT 1	There is a lack of consistency between territorial authorities regarding approaches to ensuring liveable MDH	All of the focus groups recognised the concept of liveability. However, there was no common understanding or application of the concept across or within the three territorial authorities. Each territorial authority had different district plan provisions and design guides to assist in delivering liveable MDH. This was thought to lead to a lack of certainty of MDH built outcomes across New Zealand's urban centres, which is likely to impede opportunities to deliver liveable MDH.
INSIGHT 2	Housing delivery tends to rely on historical trends as opposed to likely future demand	The existing housing market was thought to operate on an understanding of historical trends as opposed to responding to future demand. Lifestyles are changing and therefore housing needs and preferences are too. Some focus group participants, for example, noted a growing willingness by the younger and older generations to rent or buy MDH as opposed to lower-density dwellings. A robust evidence base of housing preference data was considered desirable to better understand likely future demand for different housing typologies in New Zealand.
INSIGHT 3	The current consenting framework does not adequately promote liveable MDH	Focus group participants generally considered that the Building Code is designed for low-density as opposed to medium-density or high-density, housing. This resulted in a perceived lack of ability to promote liveable MDH. Similar issues were identified within the planning system, where updates to district plans to enable MDH yielded higher levels of MDH constructed. However, this is of variable quality in relation to liveability. Non-regulatory measures such as design guides that may include a number of liveability provisions generally sat outside the consenting framework and therefore lacked enforceability.
INSIGHT 4	Greater integration and alignment are needed between MDH-related legislation and regulation	The focus groups indicated that greater clarity is required of the legislation and regulation governing MDH. In particular, any gaps between what is regulated and what is not currently regulated but should be would be useful to identify. This would enable the prioritisation of a work programme to plug any such gaps. Such a legislative and regulatory review could also identify which aspects of liveability are best dealt with by the building or planning systems or other mechanisms (such as standards or design guides).



INSIGHT 5	There is a perceived need for government leadership and intervention to achieve MDH liveability	A common theme emergent from the focus groups was the desire for government leadership and intervention to better ensure the liveability of MDH currently being delivered. There was general support for national standards, including measurable criteria, to achieve more liveable MDH. (although not all participants agreed with the necessity of this level of intervention). Additional opportunities for government leadership were thought to include the development of comprehensive and integrated urban development goals, increased quality standards within the construction and building industry, influencing financing requirements to promote liveability outcomes and reassessing the allocation of risk between parties involved in MDH development.
INSIGHT 6	The current nature of the development industry may promote profit over liveability	The existing development industry was considered to be based on short-term thinking and the maximisation of profit, often to the detriment of MDH liveability. A deeper level of knowledge regarding alternative development models, legal ownership and management structures was considered likely to be beneficial in improving MDH liveability outcomes.

Phase 4: **Insights from the liveable MDH residents’ survey**
(Allen & O’Donnell, 2020d)



INSIGHT 1	Those MDH residents who defined liveability considered it to mean ‘the ease of living in a place’	The majority of survey respondents defined liveability as ‘the ease of living in a place’, connecting convenience and ease of living with an innate place-based understanding of liveability. A large number of respondents, however, indicated that they did not know or were not sure about what liveability meant. It would be interesting to explore this divergence further to understand what factors may contribute to inconsistency between MDH residents regarding what liveability is and what it means to them.
INSIGHT 2	Dwelling liveability is important but so too is neighbourhood liveability	The MDH residents’ survey highlighted that the location of a dwelling within a neighbourhood (neighbourhood liveability) was just as important as dwelling liveability. Responses about the importance of features within their home, such as kitchens, were balanced with responses about the value of location and access to neighbourhood amenities.
INSIGHT 3	Satisfaction with MDH was high	Overall, the satisfaction of residents with their MDH dwellings was high. Older and younger respondents were most likely to experience housing satisfaction with their MDH. Looking at ethnicity, New Zealand European were also more likely to be satisfied with MDH as compared to Māori and Pacific respondents.



INSIGHT 4	MDH is largely considered to be as liveable as stand-alone housing	The majority (79%) of survey respondents felt that their MDH dwelling was as liveable as a stand-alone home. This may indicate a growing acceptance of MDH as a housing typology in New Zealand, moving away from expectations of a stand-alone home.
INSIGHT 5	Factors to consider when designing liveable MDH include indoor environmental quality, privacy and parking	Natural light and thermal comfort were most commonly ranked as the environmental aspects having the most impact on MDH liveability. Visual privacy was also very important to a large majority of respondents, and many found the temperature control of their dwellings difficult (particularly cooling). When it came to perceptions of MDH design, parking was a significant issue. Interestingly, noise and hearing neighbours or the street were not significant concerns for respondents.
INSIGHT 6	Owner-occupier and renter experiences are different and not always directly comparable	The survey identified that there are significant differences between owner-occupiers' versus renters' experiences of living in MDH, and the perceived liveability experienced by these groups is most often directly proportional to tenure type. Renters across categories were more likely to view the build quality of their dwelling to be an issue and were more likely to find aspects of their size and storage needs not being met. Concerns about thermal comfort were also significantly more noticeable among renters than owner-occupiers.
INSIGHT 7	A range of housing solutions to meet the needs and preferences of MDH residents is required	One of the most interesting insights from the data was just how varied preferences and experiences were when compared across regional locations, ages, life stages and housing type and tenure categories. This also links to literature emerging out of the Building Better Homes, Towns and Cities National Science Challenge research programme about housing choices and trade-offs. It connects the idea of New Zealand being a diverse nation to the idea that our housing also needs to be varied, and MDH as a typology offers part of this solution.

3. Research themes

The total of 21 key insights were further analysed and refined into four research themes. These research themes transition across all four phases of work to pinpoint specifically what the common challenges and opportunities currently are for delivering liveable MDH in New Zealand as a starting point for developing actions to address them. The research themes are as follows.

THEME 1 | There is no commonly used definition or understanding of the term liveability. This makes it difficult to gauge the degree of liveability of MDH being delivered in New Zealand at the current time.

The literature review, review of MDH-related legislation and regulation, focus groups with territorial authorities and survey of MDH residents undertaken as part of this research project all indicated that there is no one definition of liveability that is currently being used consistently across New Zealand. This meant that there was no generally accepted understanding of how improved MDH liveability outcomes could be achieved or measured, which in turn reduced the ability of industry practitioners, developers, builders and territorial authorities to consistently improve MDH liveability outcomes across the country.

It is therefore recommended that a definition of MDH liveability be developed at a national level, along with the identification of what constitutes good liveability outcomes. This will consolidate efforts across industry to improve MDH liveability in New Zealand. It would also provide a starting point from which the legislative and regulatory framework applicable to MDH could incorporate liveability considerations.

THEME 2 | Discrepancies exist between the actual and perceived impact of the Building Code on MDH liveability.

The high-level review of MDH-related legislation and regulation undertaken as part of the second phase of research indicated that the building and planning legislative and regulatory frameworks had the greatest influence on MDH liveability. This included primarily the Building Code and secondarily the unitary, district and city plans prepared under the Resource Management Act. Conversely, the focus groups held with territorial authority staff in the third phase of research generally considered the Building Code did not do enough to promote liveable MDH. The Building Code was generally thought to be designed for low-density as opposed to medium-density or high-density housing. This discrepancy between the actual and perceived impact of the Building Code on MDH liveability is interesting from both an attitudinal and knowledge perspective. There may be a prevalent attitude, for example, towards blaming poor built outcomes on the Building Code or a lack of knowledge regarding the purpose of the Building Code and the extent to which it has the ability to influence MDH liveability.

It is therefore recommended that further research be undertaken to understand at a greater level of detail specifically what ability the Building Code has to influence the liveability of MDH. At the same time, other mechanisms for achieving MDH liveability (such as plans prepared under the Resource Management Act) could be explored. This information could then be shared with territorial authorities and central government policy makers to support a common understanding of the ability of the current legislative and regulatory framework to promote MDH liveability in New Zealand and to identify areas for improvement.

THEME
3 Acceptance of MDH as an alternative housing typology is growing in New Zealand, making it increasingly important to ensure the liveability of MDH through clear leadership.

The survey of 500 MDH residents completed in the fourth phase of the wider MDH liveability project indicated that, overall, the satisfaction of residents with their MDH dwellings was high. The majority of survey respondents felt that their MDH dwelling was as liveable as a stand-alone home. This may indicate a growing acceptance of MDH as a housing typology in New Zealand, moving away from expectations of a stand-alone home.

In tandem with this growing acceptance of MDH, however, evidence of increasing fragmentation regarding responsibility for achieving liveable MDH was identified. The second phase of the research found that specific liveability requirements did not exist in one place. Rather, they are located across New Zealand's current legislative and regulatory framework, meaning that responsibility for delivering liveable MDH fell to a range of national and local government authorities and external organisations.

It was felt by some in the focus groups conducted in the third phase of research that there is a need for leadership and intervention to ensure MDH liveability. Opinion diverged, however, on who should be responsible for providing such leadership. Some participants felt that central government should be responsible for leading interventions to improve MDH liveability, although not all participants agreed.

The question therefore remains as to who should be responsible for providing such leadership to ensure positive MDH liveability outcomes. It is recommended that further engagement is undertaken with industry stakeholders to clarify the leadership and promotion of a liveability agenda for MDH in New Zealand.

THEME
4 A more robust evidence base is required to inform the design, regulation and delivery of MDH in New Zealand.

The research highlighted a number of information gaps that currently compromise the ability of industry to design and deliver and of policy makers to effectively regulate liveable MDH in New Zealand:

- The relationship between liveability, wellbeing and the built environment in a New Zealand context.
- Factors influencing neighbourhood and urban liveability as well as the dwelling-scale liveability of MDH. In addition, it would be useful to develop a common method of evaluating how MDH typologies may affect the liveability experienced by residents at the dwelling, neighbourhood and urban scales.
- Whether non-regulatory measures (such as strategies or design guides) at the national and local levels influence MDH liveability and, if so, to what extent.
- How provisions of MDH-relevant legislation and regulation correlate to the achievement of good liveability outcomes for MDH.
- Which approaches within unitary, district or city plans (for example, general land use versus density-based zoning and prescriptive versus subjective plan provisions) result in better liveability outcomes for MDH.
- The ability of the Building Code and other legislative and regulatory mechanisms to influence MDH liveability (as described in Theme 2).



It is recommended that industry stakeholders and research institutes (including universities and the National Science Challenge) work together to complete the additional research listed above. In doing so, a more robust evidence base will be available to inform the building and construction industry, developers and policy makers at the national and local levels as they design, regulate and deliver MDH across the country.

4. Conclusion

The BRANZ MDH liveability project was completed in four phases, utilising a mix of research methods to ensure a robust understanding of the current challenges and opportunities for delivering liveable MDH in New Zealand. It sought to ascertain:

How liveable is the medium-density housing we are building? How can we do better?

The key insights outlined in section 2 of this report and the research themes discussed in section 3 indicate that, overall, the MDH that we are currently building is generally liveable. MDH residents signalled a high level of satisfaction with their dwellings, and the majority considered MDH to be as liveable as stand-alone housing.

There are, however, opportunities to do better. There is no commonly agreed definition of liveability in New Zealand, and there are no specifically defined liveability outcomes, standards or targets for the delivery of MDH. The absence of a nationally agreed liveability definition makes it difficult to assess the degree to which liveability outcomes in MDH projects are being achieved.

There is also no specific reference to liveability nor MDH liveability within New Zealand's current legislative and regulatory framework. Neither is there a single piece of legislation or regulation that addresses MDH liveability. Rather, there is a complex web of legislation and regulation applicable to MDH, which makes it difficult to identify and promote liveability. In addition, there is inconsistency in the way that territorial authorities plan for and regulate liveability and few enforcement mechanisms for ensuring it.

In order to address these challenges and opportunities, the following recommendations emerged from the research findings.

RECOMMENDATION 1

That a definition of MDH liveability is developed at a national level, along with the identification of what constitutes good liveability outcomes.

RECOMMENDATION 2

That further research is undertaken to understand, at a greater level of detail, specifically what ability the Building Code has to influence the liveability of MDH. At the same time, other mechanisms for achieving MDH liveability (such as plans prepared under the Resource Management Act) are explored.

RECOMMENDATION 3

That further engagement is undertaken with industry stakeholders to clarify the leadership and promotion of a liveability agenda for MDH in New Zealand.

RECOMMENDATION 4

That industry stakeholders and research institutes work together to address the information gaps identified through the course of this research project.

Overall, this research indicates that the liveability of current MDH in New Zealand is generally acceptable at the dwelling scale. There are, however, opportunities to do better. These opportunities can be realised by actioning the recommendations identified in this report. In this way, MDH in New Zealand can be designed and delivered to meet the needs of the people who live in it (both now and in the future) and be accepted by New Zealanders as an alternative to traditional stand-alone housing.

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