

MEDIUM-DENSITY HOUSING #1

What is medium-density housing?

With increasing pressure on New Zealand's building stock, mediumdensity housing (MDH) has emerged as an attractive option to meet our changing housing needs. But what does MDH mean?

THE ABILITY OF MDH to accommodate urban growth and diversifying demographics, while maintaining residents' quality of life, makes it a viable form of neighbourhood intensification.

In order to communicate effectively about MDH, it is first important to understand what the term means. Unfortunately, there is no standard definition of MDH, with several differing and sometimes contradictory definitions in common use in New Zealand and overseas.

Many of these definitions include seemingly arbitrary limits for site size, building height, number of units per site or number of dwellings per hectare. Some definitions mention the type of house, while others focus on the density of dwellings over a specific site size or land allocation.

The Ministry for the Environment's 2012 definition incorporates many of the different aspects of MDH included in the other definitions:

Medium-density housing means comprehensive developments including four or more dwellings with an average density of less than 350 m² per unit. It can include stand-alone dwellings, semi-detached (or duplex) dwellings, terraced housing or apartments within a building of four storeys or less. These can be located on either single or aggregated sites, or as part of larger master-planned developments.

While this describes MDH relatively well, it places arbitrary limits on the number of dwellings, site size and building height. Each of these is contradicted by other definitions used in New Zealand, meaning that this definition is unlikely to be universally accepted. To provide the industry with a simple description that works with existing definitions and enables everyone working in the field to use common terminology, BRANZ defines MDH as multi-unit dwellings (up to 6 storeys).

This definition brings together the disparate terminology currently in use and encompasses all the types of buildings that are commonly considered MDH in New Zealand. It is also flexible enough to encompass new classes of building as they emerge in the future.

The density scale

On the housing-density scale, medium-density housing sits between low-density housing (LDH) and high-density housing (HDH).

In New Zealand, LDH includes stand-alone dwellings, generally 1–2 storeys, on a full section ($\leq 800 \text{ m}^2$), a half section ($\leq 400 \text{ m}^2$) or clustered on sites of varying sizes. HDH includes apartment buildings greater than 6 storeys and unit sizes ranging from studio apartments to 3–4-bedroom apartments.

Our MDH definition, therefore, excludes stand-alone and infill buildings and includes apartment buildings up to 6 storeys high.

MDH building categories

Medium-density housing comprises a diverse range of attached housing types, including 1-storey units, 1–2-storey duplexes or triplexes, 2–4-storey terraced houses, and 3–6-storey apartments.

BRANZ divides MDH into three main categories and six subcategories, as in Figure 1.

Category 1: 1–2-storey attached houses

Category 1 buildings (Figure 2) are the lowest density within the MDH definition.

Category 1

- 1-2-storey attached houses
- Subcategory A: Single-storey units
- Subcategory B: 1–2-storey duplexes or triplexes and semi-attached terraced houses

Category 2

- 2–4-storey attached houses
- Subcategory C: 2-storey terraced houses
- Subcategory D: 3-storey terraced houses
- Subcategory E: 4-storey terraced houses

Category 3 Apartments

Subcategory F: 3–6-storey apartments

Figure 1. Categories of medium-density housing.

These houses range in size from 2–4 bedrooms and can have a similar spatial layout to traditional detached houses. Back gardens or patios of varying depths are also common. They are popular with residents who enjoy entertaining, eating outdoors and gardening and families who use the back garden for play.

Resident demographics

Because they follow a similar spatial layout to a traditional detached home, category 1 buildings are considered suitable for a broad range of demographics, including young professionals, families and retirees.

Units can offer a more affordable option than a stand-alone home and enable buyers to invest in their preferred location, trading off private space for location amenity.











Figure 2. Examples of 1–2-storey attached houses that make up category 1 MDH buildings.

Figure 3. Examples of 2–4-storey attached houses in category 2 MDH buildings.

Duplexes and semi-attached terraced houses are not necessarily more affordable due to their size.

Location and amenities

Because 2-storey attached houses are of a similar scale to existing low-density suburbs, they are easily incorporated into the existing suburban fabric. A range of nearby neighbourhood amenities, such as cafés, supermarkets, medical and community facilities, enhances liveability. It means that, while residents may have traded off private space to make this housing choice, where they live is convenient for them.

Category 2: 2–4-storey attached houses Category 2 MDH (Figure 3) is growing in popularity in New Zealand. While examples came to prominence in main centres in the 1970s, it is now the most rapidly growing category of MDH in existing suburban neighbourhoods.

Terraced housing or row housing refers to individual dwellings connected on two sides via a shared or party wall. Individual residential units are stacked or separated vertically and are only one unit deep. They are suited to both urban and suburban locations.

Resident demographics

2–4-storey attached houses cater to a wide demographic due to their versatility. They are popular with young professionals, smaller families and those who no longer have family living at home.

Given New Zealand's shift towards later family formation, smaller families, singleparent households and an ageing population, it is likely that category 2 buildings will increase in popularity in the coming years.

Location and amenities

The physical bulk of 2–4-storey attached houses integrates well into existing neighbourhoods. However, due to increased numbers of residents living in a given area, additional parks, food shops and cafés, medical facilities and other services may be needed to prevent oversubscription of existing amenities. This can mean attached houses are better suited to town centres and other areas where such amenities are welcomed.

Category 3: Apartment buildings

An apartment building is a multi-storey building in which residential units are horizontally separated on each floor. Individual apartment sizes vary greatly. They can be studio apartments or have any number of bedrooms (Figure 4).



Figure 4. Examples of apartment buildings up to 6 storeys high that make up category 3 MDH buildings.

Some apartment buildings offer shared indoor and outdoor spaces, such as a courtyard with play spaces, pool facilities and landscaped gardens or lawns. The maintenance of these facilities is organised by a body corporate to which residents pay fees.

Resident demographics

Because apartments can vary greatly in their size and spatial layout, as a broad category, they suit all demographic groups.

Apartments below 5 storeys often do not have lifts, which doesn't suit all residents, especially those with disabilities. Those that do incorporate lifts often provide easier access than staired terraced houses.

Location description and neighbourhood amenities

Apartments are generally located in town and city centres. They are ideally located within walking distance of a range of local amenities, including local parks, to offset the lack of private outdoor space.

More information

See BRANZ Study Report SR376 *Defining medium-density housing* for more on the definition and terminology of MDH.

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