

Specialist roles for medium-density housing projects

This page identifies the specialist roles commonly involved with MDH projects and outlines their typical roles and responsibilities.

The involvement of specialists is essential for larger MDH projects or when Acceptable Solutions have not been established, to ensure your design and all building work meet the requirements of the Building Code. The complexity and nature of the project will determine which specialists you need to involve.

The descriptions below outline the roles of specialists commonly involved in MDH projects. The case studies provide further detail on how specialists typically contribute to each category of MDH project.

The Construction Industry Council's [Concept Design Guidelines](http://nzcic.co.nz/resources/guidelines) (<http://nzcic.co.nz/resources/guidelines>) show a breakdown of tasks and responsibilities for a typical MDH project.



Project manager

For a complex project, it is common practice for a project manager to be engaged to oversee the build from planning through to completion. The project manager's responsibilities include ensuring all the specialists involved with the project continue to talk with each other throughout the development and construction phases. This helps ensure any compliance issues are identified and resolved as soon as possible.

Licensed building practitioner

Many MDH projects include restricted building work that must be designed and carried out (or supervised) by a licensed building practitioner (LBP). LBPs include designers, carpenters/builders, roofers, brick- and block-layers, external plasterers, and site and foundation specialists.

Restricted building work means work that both requires a building consent and affects a home's primary structure, weathertightness or (in the case of townhouses and apartments) fire safety design.

[Read more about using licensed people for restricted building work](https://www.building.govt.nz/projects-and-consents/planning-a-successful-build/scope-and-design/choosing-the-right-people-for-your-type-of-building-work/use-licensed-people-for-restricted-building-work/) (<https://www.building.govt.nz/projects-and-consents/planning-a-successful-build/scope-and-design/choosing-the-right-people-for-your-type-of-building-work/use-licensed-people-for-restricted-building-work/>).

Architect/designer

Depending on the nature and complexity of the project, you may need to arrange for the designs to be prepared by a registered architect, architectural designer, or chartered professional engineer. Good plans, drawings and specifications are required as part of your building consent application, and are key to the success of any MDH build. It is important to involve someone who knows the Building Act and can design to the current Building Code.

Check your designer's qualifications. In many MDH projects, the design work relating to structure and weathertightness must be carried out or supervised by an LBP. Fire safety design in small- to medium-sized apartment buildings (including townhouses) also requires an LBP.

When drawing up the building plans, the designer will need to identify whether the project includes any restricted building work that must be carried out or supervised by an LBP. For the purposes of restricted building work, registered architects and chartered professional engineers are treated as if they have a Level 3 'Design' LBP. Any restricted work is then recorded in the Certificate of Design Work that forms part of the building consent application.

An architect or architectural designer may also be able to act as the project manager, so it is important to understand the services they'll provide. Make sure roles are set out in any contract for services, so that all parties have a clear understanding of who is doing what.

[Read more about choosing a designer or architect \(https://www.building.govt.nz/projects-and-consents/planning-a-successful-build/scope-and-design/choosing-the-right-people-for-your-type-of-building-work/choosing-a-designer-or-architect-for-your-building-project/\)](https://www.building.govt.nz/projects-and-consents/planning-a-successful-build/scope-and-design/choosing-the-right-people-for-your-type-of-building-work/choosing-a-designer-or-architect-for-your-building-project/).

[Search the New Zealand Architects Register \(https://www.nzrab.nz/Search/\)](https://www.nzrab.nz/Search/).

Structural/geotechnical engineer

A structural engineer's role in an MDH project is to ensure the design meets the performance requirements of the B Stability clauses of the Building Code.

The structural engineer will typically design the foundations, structural frames and any concrete or masonry work. The structural engineer may also recommend that a geotechnical engineer is engaged to assess site conditions. The services of a geotechnical engineer will always be required for projects in Christchurch or any site not located on good ground.

The structural engineer will need to provide a producer statement in support of the building consent application. They should be a Chartered Professional Engineer (CPEng), as the BCA will normally assess their credentials to ensure they have appropriate experience and competence in their field of expertise.

For an MDH project of low complexity, it may be possible for an experienced architect to design the structure and the foundations provided this falls within the scope of an Acceptable Solution.

Building Code areas of focus for structural and geotechnical engineers

- B1 Structure
- B2 Durability

Building Code clauses that interact with B Stability

- C Protection from fire
- E Moisture
- G Services and facilities
- H Energy efficiency

[Search the register of chartered professional engineers \(https://members.engineeringnz.org/search/search-register\)](https://members.engineeringnz.org/search/search-register) (CPEng)

Fire engineer

A fire engineer provides design advice on fire safety matters for compliance with Building Code clause C Protection from fire. This advice will usually be in the form of a fire report that includes information on materials, access, fire cells, common areas, smoke separations and any other relevant issues.

The MDH project plans and specifications will need to demonstrate how the fire report will be utilised to ensure all requirements of the Building Code are met.

With complex projects that do not rely solely on Acceptable Solutions to ensure compliance with Building Code clause C Protection from fire, it is important to ensure the fire engineer is a chartered professional engineer (CPEng).

Building Code area of focus for fire engineers

- C Protection from fire

Building Code clauses that interact with C Protection from fire

- B1 Structure
- B2 Durability
- D Access
- E Moisture
- F Safety of users
- G Services and facilities

Façade consultant

MDH projects with a height of more than 10 metres need to involve a professional with suitable experience and qualifications. An expert specialist façade consultant may be appropriate when others in the design team do not have the necessary skills and experience.

A façade consultant will help ensure that cladding systems are appropriate for the project and can demonstrate compliance with the relevant requirements of the Building Code, including clause E2 External moisture. A façade consultant will also help ensure the cladding system's design is compatible with the other design proposals for compliance involving other clauses, which may affect or be affected by it.

Some BCAs may advise that a façade consultant needs to be involved unless the design falls within the scope of an Acceptable Solution. A pre-application meeting with the BCA can help identify their concerns and expectations in relation to the cladding system. It may be necessary, for example, to provide a peer review of the cladding system within the building consent application.

Building Code areas of focus for façade consultants

- E2 External moisture
- B1 Structure (in relation to the cladding system)
- B2 Durability (in relation to the cladding system)
- C3 Fire affecting areas beyond the fire source (in relation to the cladding system)

Building Code clauses that interact with E2 External moisture

- B1 Structure
- B2 Durability
- C Protection from fire
- E3 Internal moisture
- G6 Airborne and impact sound
- H1 Energy efficiency

Building services engineer

An MDH project may need to involve a building services engineer to ensure the design meets the G Services and facilities clause of the Building Code. This may apply, for example, when the building design includes complicated services such as a centralised heating system or sprinkler systems, or if there is a high load on local infrastructure.

The G clause includes requirements for ventilation and the adequate and safe provision of sanitary fixtures and services such as gas, electricity and water.

Building Code areas of focus for building services engineers

- G Services and facilities

Building Code clauses that interact with G Services and facilities

- B Stability
- E Moisture

- C Protection from fire
- H Energy efficiency

Acoustic engineer

Problems with noise transfer are much more difficult and expensive to fix if you wait until after the completion of an MDH project. Involving an acoustic engineer can help ensure the design meets the needs of all building users.

Building Code clause G6 Airborne and impact sound sets performance requirements designed to protect occupants from noise. However, regulatory experts participating in BRANZ Ltd research report that developers generally must exceed these requirements to meet the needs of modern buyers.

Your structural engineer may advise against engaging an acoustic engineer in the case of an MDH project that plans to use concrete slabs and masonry walls that are strapped and lined between tenancies. This design is very effective at reducing noise transfer.

Building Code areas of focus for acoustic engineers

- G6 Airborne and impact sound

Check out the BRANZ Ltd Study Report SR381 (https://www.branz.co.nz/cms_show_download.php?id=a718c5cb4583e2972dbb33aeee03ddbac4941e25)



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