Recent code changes and greater interest in environmentally friendly materials have made mid-rise wood-framed buildings more popular than ever among builders. But, moving from your typical 3-story wood structure to 4, 5 and even 6 stories raises new issues.

1. Heighten fire controls
Taller buildings add more risk because it takes longer for people to get out in the event of a fire. More stringent fire codes mean protecting beyond fire and combustion to include smoke spread, toxicity of smoke and flame spread on surfaces. Stone wool insulation is highly fire resistant and capable of reducing the spread of smoke and fire between floors and units.

2. Manage the moisture
Construction moisture is a challenge in taller structures as they experience more wind and rain. Using the right combination of vapor-permeable barriers for air and water control, and vapor-permeable insulation like stone wool for thermal control, allows for wall assembly materials to dry out. This is particularly important for the durability of your building envelope and in areas where moisture exposure is common such as below-grade applications.

3. Get a handle on noise
Lack of sound control is one of the top complaints of occupants in multi-unit buildings, especially since these types of buildings have people in closer proximity and tend to be located in urban areas. Stone wool effectively absorbs sound because of its multi-directional fiber structure. It’s also denser than many other types of insulation, resulting in reduced sound transmission.

4. Avoid thermal bridges & cold spots
Continuous insulation (CI) is one of the best ways to meet new energy requirements. A stable R-value, due to a lack of blowing agents, makes high-density stone wool insulation a good choice for long-term thermal performance. It won’t shrink or swell, reducing the risk of thermal bridging, and works to reduce cold spots which can lead to condensation and eventually mold.

5. Reach for higher sustainability goals
The recent code changes recognize the need for more environmentally conscious materials. Derived from natural volcanic rock and containing up to 40% recycled content, ROCKWOOL products produce less harmful emissions than other insulation types that require blowing agents. The result is an excellent building option that helps you achieve a wide range of sustainability certifications and goals.

Here are 5 tips to help you build a safer, more energy-efficient mid-rise wood structure:

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Let’s build better together
Our Building Science Experts can help you with the latest building code insights and the guidance you need to get the best performance from your mid-rise wood building.

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