

# Mass Timber - Considerations for Planning & Design (RIBA Stages 0-4)

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This standard provides guidance and support on the key hazards and areas to consider, if you are planning to build a Mass/Engineered Timber Building.



# Mass Timber - Planning & Design RIBA 0-4



## Introduction

It is critical that the customer, their architects, and design team engage with their Construction and Property Insurers, and Broker at the earliest opportunity, and that this continues throughout the project. This can help ensure that adequate Risk Management controls are in place throughout all stages of the construction, whilst also providing a robust operational building. As a starting point, it is imperative to be fully compliant with the current [Fire Prevention on Construction Sites Joint Code of Practice 10th Ed.](#) or applicable local territory equivalent.



## Positive Design Features

Ground Floor: Non-combustible and/or fire resistive

Structural Cores: Non-combustible and fire resistance rating of at least 2 hours

Utilities & Services: No vertical penetrations outside of the structural cores

Fire Compartmentation: Property protection strategy forms the basis of fire safety – not just life safety

## Increased Hazards

Certain exposures will need additional Risk Management focus and collaboration:

- Existing structures, including impairments of existing detection/protection systems
- Modular or pod construction
- Blue roofs, green (or brown) roofs & living walls
- Photovoltaic panels
- Electric vehicle charging points

## Hot Work & Water Damage

Mass timber buildings are at an increased exposure from fire (smoke and water) and internal and external water sources (domestic, rain, and flooding etc.). These risks must be considered and mitigated in formal risk assessments and throughout any Management of Change process.

The following resources should be used:

- ✓ [Aviva Hot Work Operations - Loss Prevention Standards](#)
- ✓ [Aviva Escape of Water on Construction Sites - Loss Prevention Standards](#)
- ✓ [Construction Insurance Risk Engineers Group \(CIREG\) - Managing Escape of Water Risk on Construction Sites \(5th Edition, November 2019\)](#)
- ✓ [Fire Prevention on Construction Sites Joint Code of Practice 10th Ed.](#)

## LOSS PREVENTION STANDARDS

## Project Team Meetings & Procurement Strategy Considerations

- Experience and qualifications of the designers, principal contractor, suppliers & installers
- Project sequencing & programming
- Delivery, protection & temporary storage of materials including moisture management
- Weather protection & natural hazard exposures
- Welfare & logistics (including waste management & housekeeping)
- Use of mobile plant - engine powered & electric vehicles (including charging & fuelling)
- Security arrangements
- Temporary & permanent fire detection and/or suppression
- Early integration of passive fire protection
- External & Third-Party exposures
- Temporary & permanent utilities - associated detection and automatic shut off devices for water
- Early engagement with the Fire & Rescue Services (ascertain public fire water supplies)
- Emergency response and contingency plans

## Specialist Partner Solutions

Aviva Risk Management Solutions can offer access to a wide range of risk management products and services at preferential rates via our network of Specialist Partners.

For more information please visit:

[Aviva Risk Management Solutions – Specialist Partners](#)

## Sources & Useful Links

- [The Construction Insurance Risk Engineers Group \(CIREG\)](#)

## Additional Information

To find out more, please visit [Aviva Risk Management Solutions](#) or speak to one of our advisors.

Email us at [riskadvice@aviva.com](mailto:riskadvice@aviva.com) or call 0345 366 6666\*

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## LOSS PREVENTION STANDARDS