# Insuring low-carbon building construction



## Our approach to engineered timber and hybrid risks

Aviva has declared an ambition to achieve Net Zero by 2040 and support the UK to become the most climate-ready large economy by 2030. The Construction sector plays a key role in helping to reduce the impacts of Climate Change. In the UK alone, our built environment contributes 40% of the country's carbon emissions<sup>1</sup>.

To help companies as they explore new sustainable methods of construction, we've widened our acceptance criteria for engineered timber - particularly for innovative forward-thinking customers with the right approach to risk management.

## Who do we want to work with?

Aviva aims to support market leading, innovative customers who understand and will invest in the long term sustainability and resilience of a building, recognising future occupiers and changing uses. Specifically:

- Work with those who will involve Aviva from the design stage, with access to the contractor and the principal investors.
- Have aligned contractors that operate to the highest standards with an experience and proven track record of significant timber structures.
- Have a proactive approach to Risk Management
- Where repairability, fire and water resilience has been built in beyond regulatory minimums.
- Designed with future occupiers in mind, with a building where common inception risk for fire and escape of water are managed for the long term.
- Contractors that we will consider robustly operate the Joint code of practice (JCOP), The Construction Insurance Risk Engineers Group (CIREG) and Structural Timber Association 16 Steps to the highest standards.



## A collaborative approach

We've a dedicated team of expert Underwriters and Risk Managers that allows us to dedicate time to support likeminded customers. Given the commitments for both parties, we've a detailed triage process which helps us understand the customer's needs and ensures they're committed to a resilient design, build and management of their sustainable property.

We can be flexible in the capacity we offer, dependent upon on the mix of pure/hybrid timber, protection, materials and quality of management for each project. As such, we ask that you engage us early on behalf of those customers you believe are committed to these aims.

## See page two for our appetite and requirements

## Risk Management, by design, is the core of managing the risks, safety, resilience, financial impacts and lifetime carbon footprint of timber structures.

The nature of wood itself is combustible and susceptible to water damage, meaning it must be protected and pro-actively managed in the build and lifetime of use. Aviva is looking to work with customers who understand the attention to detail and investment that is required to create a truly sustainable environment that is economic to maintain, run and therefore insure. With the support of our Risk Management team, our underwriting appetite follows these principles:

### Design



- Practical and pragmatic fire and wet perils protection designed into fabric, layout and use of building. Construction, protection
  systems and maintenance programmes in place to minimise inception risks such as escape of water and ignition from common
  hazards.
- Human behaviour is designed into the building and its environment, waste management and control of contractors through hot and wet permit systems.
- Balance aesthetic and protection with appropriate use of non-combustible encapsulation and/or effective compartmentation to high-risk areas and use of suppression and sprinklers in appropriate places.
- We're engaged at stage zero of design to guide best practice in development.
- Customer, Engineer, Contractors, and Architects who have a transparent approach to resilience will help safeguard against the QA issues discovered in the Grenfell enquiry, mitigating parallel risks in timber structures.
- Collegiate approach to resolving and mitigating issues such as leaks from Blue Roofs, through use of technology designed into the building and maintained through its lifetime.

## Repairability



- · Through pragmatic design of future maintenance, repairs following a claim are easy, straightforward and minimises cost.
- Use of the right material in the right environment, such as where risks are greatest. Pragmatic use of hybrid designs that will protect the building through its lifetime need to be considered.
- Aviva's experience of existing timber frame and modern structures highlights that water damage is going to be the greatest cost in maintenance during majority of a building's lifetime. Rot, mould and water ingress can substantially shorten the life of a building.
- o Ease of maintenance and repair, protecting wood from water damage is one of the key areas that need to be well designed and implemented to keep insurance costs low in construction and the life of the building.
- o We expect to see water management technology used both for the plumbing and also protecting the vulnerable areas such as roof structures from the damage caused by water.
- We currently advocate in line with the RISCAuthority white paper, that for many larger, complex structures, a hybrid approach may well be the lifetime lower carbon option in creating truly resilient and safe buildings.

## **Protection**



- During construction or managing a tenanted building, the quality, knowledge and understanding of dealing with timber and associated risks, technologies and management thereof is the key to insurability.
- We look for Contractors who are specialists with a proven track record and demonstrate the highest standards through strict application of JCOP, CIREG and 16steps.
- · Contractors and owners are committed to optimise passive, active, and operational risk management.
- Use of passive protection to reduce fire spread, and reduce likely extent of losses, beyond current life safety building regulation standards.
- Sprinklers and/or suppression of high-risk activities such as cooking operations or overall site dependent on size and occupancy.
- Use of leak detection and automation to minimise escape of water damage.
- Instil working practices that protect the occupants and the building from construction and throughout its lifetime.
- The protection, passive or active, is designed into the building and flexible to respond to future tenants' needs.

## **Areas of caution**

There are still some key challenges, principally with the UK's building regulatory environment, and these are well documented in the Grenfell enquiries and subsequent response. Until these issues are resolved we do not have an appetite for high rise residential, though we continue to work with the Government and ABI to resolve. Customers Quality Assurance standards and approach are a core discipline required to safely design, build and operate timber buildings.

Similarly where property is unduly exposed to surface, coastal and river flooding risks our normal approach to risk selection will apply to timber.



We'd like to work with customers who share our aims, ideally from design through to construction. We're also interested in working with customers on modern buildings – less than 10 years old - where the majority of the aims are met already.

If you believe you've a customer who meets these requirements, please speak to your Aviva business development manager or underwriter in the first instance.

1 Royal Academy of Engineering