

# Building safety: an engineer's pack

Whether delivering new-build designs or assessing existing buildings, structural engineers can ensure they follow best practice for building safety thanks to four new publications from the IStructE, explains Technical Director, Patrick Hayes.

Supporting structural safety in the built environment is the Institution's key objective. This is enshrined in our strategic goal: 'To promote innovation, excellence and best practice standards for safe and sustainable ways of working'. For many members, building safety is at the forefront of their activities.

The Hackitt report, following the Grenfell Tower tragedy, highlighted practices from other high-risk industries that construction should adopt to raise standards and promote safety: asset data collection, design assurance, information management and risk management through the adoption of the safety-case regime. These principles were enshrined in the Building Safety Act 2022 (BSA) through the regulations covering gateways, the golden thread and safety cases. Although applicable to higher-risk buildings (HRBs), Hackitt's intention was that this best practice should, in time, extend to all buildings to raise overall standards.

To support members to comply with regulations and in their work, the Institution has drafted a concise, comprehensive and coherent building safety support package. It is equally beneficial to those looking to understand and adopt best practice in their work as it is to those seeking to comply with the BSA. The pack sets out best practice for the processes required to deliver new-build designs and assess existing buildings. The publications set out the statutory requirements of the BSA, describe practical methods of achieving compliance, and contain the background information needed to understand the guidance.

## Four key publications

For those aiming to understand risks in existing buildings, *Assessing higher-risk*

## “ THE PACK SETS OUT BEST PRACTICE FOR THE PROCESSES REQUIRED TO DELIVER NEW-BUILD DESIGNS AND ASSESS EXISTING BUILDINGS

*buildings under the Building Safety Act: a compendium of structural typologies* summarises what to look out for when assessing existing buildings and how to gather the information in a proportionate way. It describes common defects found in different building types, schedules historic codes and then summarises their deficiencies. It describes 16 common HRB typologies, including their potential defects, details sources of information and, finally, gives advice on how to research further building information.

This base knowledge feeds into the overall building safety-case assessment. The methodology for this is described in *Preparing safety case reports for higher-risk buildings under the Building Safety Act: guidance for structural engineers*. Though widely adopted in other industries, the concept of a safety case is new to public buildings. The guide describes the key components of a safety case, framed around the risk assessment process. The guide sets out statutory requirements, the engineer's input, a methodology for assessing structural risks, and advises how to deal with non-compliant assets. Appendices

include background guidance on key risk management concepts for those wishing to further their understanding of this increasingly important field.

Navigating the new gateways approval system for HRBs has proved a challenge for industry due to a lack of clarity on expectations. This has led to rejected applications and project delays. The *Institution's Structural submissions for higher-risk buildings under the Building Safety Act: guidance for Gateways 2 and 3* takes readers through the gateway legislation and provides detailed recommendations on the contents and level of detail for Gateway 2 and Gateway 3 submissions, including guidance on how to manage specialist contractor designs. The guidance is equally valuable as an assurance framework for non-HRBs.

For both new and existing HRBs, a golden thread of safety information in digital format must now be compiled. *Implementing the golden thread for higher-risk buildings under the Building Safety Act: guidance for structural engineers* sets out what must go into the golden thread at each project stage, who is responsible for collating it, and how data must be managed digitally to enable a 'single source of truth' to be developed and maintained for use during the building's life cycle to demonstrate compliance with building regulations and enable the ongoing safe management of the building.

Available individually, or now as a complete pack of four, from the IStructE bookshop ([www.istructe.org/shop/](http://www.istructe.org/shop/)), these publications are an essential companion for any structural engineer looking for guidance on complying with the requirements of the BSA. The underlying principles will also be applicable to engineers working on similar projects in other jurisdictions around the world.



tse@istructe.org



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# Building Safety Act guidance (four-volume package)

Essential titles from the Institution to assist built environment professionals in tackling key aspects of the Building Safety Act.

## Comprising:

- Assessing higher-risk buildings under the Building Safety Act: a compendium of structural typologies
- Implementing the golden thread for higher-risk buildings under the Building Safety Act
- Preparing safety case reports for higher-risk buildings under the Building Safety Act
- Structural submissions for higher-risk buildings under the Building Safety Act: guidance for Gateways 2 and 3



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