RISE | Retrofit information, support & expertise

Introduction to high rise retrofit

Supply chain advice pack

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www.riseretrofit.org.uk

Introduction

In England a dwelling would be classified as high rise if the building has at least 7 storeys or is at least 18 metres high and at least 2 residential units[1]. In England there are estimated to be 77,500 high rise residential buildings, estimated to contain 691,000 dwellings (gov.uk, 2020). Therefore, although retrofit opportunities are likely to exist within this segment, the market may also be heavily influenced by contractors who specialise in high-rise buildings.

77,500

Estimated number of residential buildings between 11 metres and 18 metres in height in England (Gov.UK, 2020)

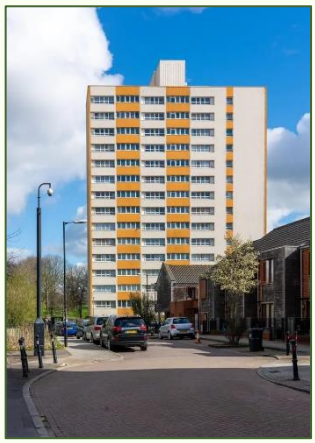
691,000

Estimated number of dwellings in residential buildings between 11 metres and 18 metres in height in England (Gov.UK, 2020)

This pack is designed for retrofit contractors as an introduction to high rise retrofit considerations. It will cover the following:

Definitions and legislative context → Procurement and supply chain skills → Measures → Logistics → Resident engagement

Examples



Source: LBC

Barton House, Bristol

47 metres

Source: UK Housing

Topcliffe House, Birmingham

48 metres

Source: Oxford Mail

Blackbird Leys Tower, Oxford

60 metres

[1] Managing high-rise residential buildings, GOV.UK, 2024

Definitions and legislative context

Building Safety Act

- The Building Safety Act (BSA) 2022 establishes a new safety regime for higher-risk buildings (HRBs), defined as residential buildings over 18m or 7 storeys. It introduces a system of legal duties for accountable persons, new competency requirements for contractors, and a more stringent approach to fire and structural safety.
- Retrofit projects involving building fabric, fire safety, heating systems or external wall systems must comply with the BSA and its supporting regulations. All HRB works must follow the Building Safety Regulator's Gateway approvals process, which may influence timelines, procurement, and change control requirements.

Building Safety Regulations

- The Building Safety (England) Regulations set out the detailed operational requirements for HRBs, including safety case reporting, resident communication duties, ongoing building management, and record-keeping ("the golden thread").
- For retrofit, these regulations require that materials and systems are demonstrably safe, fire-tested, and installed by competent persons. Certain elements (e.g., façade works, district heating, alarm systems, structural alterations) must go through Gateway 2 approvals before work begins, and changes must be resubmitted if design alterations occur.

Procurement and supply chain skills

When working with your client, it is important to identify the building's high-rise status and ownership early on. This helps you understand what you will be responsible for, as well as any specialist skills or competencies that may be required. For example:

Example area	High rise explanation
Building safety act 2022	Knowledge of the building safety Act 2022 would be essential.
Working at height competence	Highrise retrofit requires operatives competent under the Work at Height Regulations (2005), with training in edge protection, fall-arrest systems, and safe use of mobile elevated work platforms (MEWPs), mast climbers, hoists, and specialist scaffold systems.
Harness training	All operatives using fall-arrest or restraint systems must receive accredited harness training covering inspection,

	fitting, anchor points, rescue procedures, and correct use alongside scaffolding or mast climbers.
Asbestos training	Although asbestos can be present in all different heights of buildings, it is likely you could be interacting with a section or area of a building that is previously un-investigated or undisturbed.
Lifting Operations and Lifting Equipment Regulations (LOLER)	LOLER applies to hoists, cranes, MEWPs, façade access systems and any lifting equipment used around the HRB. Equipment must undergo six-monthly or annual examinations and be operated only by trained personnel.

Measures

Measure	High rise complexity
Heat pump	• There may be too little space for this measure for multiple units. • Noise proximity would be a determining factor.
Solar PV	• A high-rise block could have much less roof space for PV. • Splitting the electricity generated and billing could be complex but is supported by several new systems.
Gas heating	• Must follow more stringent regulation in high rise than low rise: for example, use of special gas flues.
Wind turbine	• Significant structural loadings must be assessed by a structural engineer, especially around roof parapets.
Windows	• Although the windows themselves may be a standard price you may have significantly higher costs for scaffolding.
Insulation	• External Wall Insulation (EWI) in HRBs must meet strict fire performance (A1/A2 noncombustible) under post-Grenfell regulations. Only competent installers with proven HRB experience should be procured. • Works access drives cost: mast climbers, suspended cradles or full wrap scaffold may be required depending on height and ground constraints.

Logistics

Scaffolding

Scaffolding is one of the biggest cost and programme drivers in high-rise retrofit because of height, wind exposure, firesafe sequencing, and access dependencies.

- **Specialists systems:** E.g. ringlock, cantilever, suspended, mast-climbing, are often needed for HRBs depending on height and limited ground space.
- **Work at Height Regulations 2005:** Require scaffolds to be properly designed, erected, inspected and maintained, with HSE mandated guard rails, secure ties, and 7-day inspections.
- **Resident privacy and access:** Can be compromised by scaffolding, leading to refusals which can delay entire elevations.
- **Planning:** Must consider elevation order, hoist locations, material movement, and maintaining fire safety so no systems are removed without replacements.

Parking

Space around HRBs is usually very limited, requiring careful coordination of vehicle work, deliveries, and permissions.

- **Limited on-site parking**: May require bay suspensions, timed deliveries, and controlled areas for cranes/MEWPs/mast climbers.
- **Emergency access:** Access routes, mobility spaces and fire appliance access must always remain open.
- **Congestion:** Heavy materials need hoists coordinated with scaffold setup; just-in-time delivery reduces congestion.
- **Minimise inconvenience:** Deliveries should avoid busy periods or lift outages, as highlighted in your engagement content.
- **Exclusion zones:** Will be needed to prevent injuries from falling objects whilst working at height.

Top-down or bottom-up?

It will depend on the project and structure of the buildings but some considerations include:

- **Maintaining critical safety**: alarms must stay active until replacements are installed; façades cannot be left open across floors.
- **Minimising damage**: in some cases, to avoid debris impacting lower floors, it may be less damaging to start from the top.
- **Stability and safety:** depending on the nature of the work, the top floors may need stabilising first due to wind load, and top-down sequencing may reduce repeated lifting.
- **Helps consistent workforce deployment:** E.g., mast climbers allow steady elevation-by-elevation progress).
- **Typical order:** Fire safety → structural repairs → envelope → services → reinstatement.

- **Maintaining some operations:** sometimes commencing from the top allows lower floors to remain operational. This depends on the project as a full refurbishment may involve decanting tenants.
- **Helps inform residents:** Reduces disruption, improves communication ("Your floor is Week X–Y"), and helps coordinate access for vulnerable residents.

Resident engagement

Resident engagement is required under PAS 2035 and Warm Homes funding, but in high-rise buildings it becomes business-critical: one refusal or delayed access can halt works across entire floors and compromise safety or sequencing.

High-rise blocks also face more intensive disruption - scaffolding, lift constraints, noise, fire safety checks - so clear, early engagement builds trust and helps projects stay on schedule.

Why high-rise engagement is different

Topic	Factors
Higher disruption sensitivity	• Noise • Wind • Restricted access • Temporary service interruptions
Greater safety concerns	• Fire safety • Cladding removal • Alarms • Compartmentation
Complex resident profiles	• Mixed tenure (tenants, leaseholders) • Vulnerable households • Remote workers
Cascading risk	• One objection affects entire floors or zones, unlike low-rise schemes
Maintenance or repairs	• It is more difficult to return to fix anything once scaffolding is down

Resident engagement principles

Considerations	
• Start engagement early.	✓
• Tailor by floor/zone.	✓
• Identify any mixed tenures.	✓
• Give honest timeframes and expectations.	✓
• Provide contact information and complaints procedures.	✓
• Budget time for any residents who need extra support.	✓
• Have answers to any expected FAQs.	✓
• Consider different languages and formats for information.	✓
• Complete proper handovers.	✓
• Don't leave a mess! This is bad news for all parties involved.	✓
• Offer automated appointment reminders.	✓
• Try to offer residents some input – choosing colours for example.	✓

Suggested engagement activities

Floor-by-floor meetings or briefing letters ✓

Resident champions within the block ✓

Pre-works "what to expect" packs ✓

Visual timelines and zone maps ✓

Multilingual materials where needed ✓

Post-works satisfaction checks ✓

Summary

High-rise buildings require a distinct approach to retrofit planning and delivery. Height, structural complexity, and stricter compliance standards mean that contractors must navigate more intensive safety requirements, specialist access systems, and additional approvals under the Building Safety Act. Identifying these constraints early helps teams plan realistic programmes, sequence works safely, and understand the skills and competencies required for successful delivery.

Retrofit measures such as insulation, windows, ventilation, heat pumps, and solar PV must be carefully assessed within the context of high-rise environments, where limited roof space, strict fire-performance standards, complex logistics, and working-at-height regulations shape what is feasible. Programme delivery is influenced by issues such as scaffold design, mast climbers, wind exposure, constrained ground space, LOLER compliance, and the need for continuous safety inspections, all of which can significantly affect cost, time, and access.

Resident engagement is especially critical in high-rise settings, as a single missed appointment or refusal can delay works across whole elevations or floors. Mixed tenure, vulnerable residents, and higher disruption levels mean engagement must be proactive, clear, and sustained throughout the programme. By understanding these high-rise-specific considerations early and applying PAS 2035 principles consistently, supply chain partners can deliver tailored, safe, and efficient retrofit programmes that meet regulatory requirements and support positive resident outcomes.

Resources

Podcast: All RISE podcasts are available here.

PAS podcast: "Retrofitting Historic Archetypes" available here.

Masterclass: All RISE masterclasses are available here.

PAS masterclass "Building Safety Regulations and Retrofit" available here.

Advice pack: All RISE advice packs available here.

PAS advice pack: "Developing retrofit interventions" available here).

This pack aims to share insights, good practices, and lessons learned from the sector. It is intended for informational purposes only and does not constitute as recommendations or endorsements of specific suppliers, products, or services or as legal advice. Please always check the latest regulations.

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