

PAS 8672:2022

Built environment – Framework for competence of individual Principal Contractors – Specification



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Foreword

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Acknowledgement is given to Gerald Naylor, Chartered Institute of Building, as the technical author, and the following organizations that were involved in the development of this PAS as members of the steering group:

- British Approvals for Fire Equipment (BAFE)
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- Engineering Council
- Federation of Master Builders (FMB)
- Fire Sector Federation
- Health and Safety Executive (HSE)
- Institute of Clerks of Works and Construction Inspectorate (ICWCI)
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- Wates Group

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The PAS process enables a specification to be rapidly developed in order to fulfil an immediate need in industry. A PAS can be considered for further development as a British Standard, or constitute part of the UK input into the development of a European or International Standard.

Relationship with other publications

This PAS is based upon the recommendations regarding competence (i.e. skills, knowledge, experience and behaviours) and assessment given in the report *Setting the bar: A new competence regime for building a safer future*¹ [1] in light of events following the tragedy at Grenfell Tower.

This PAS forms part of a comprehensive suite of documents relating to competence in the built environment. The suite comprises:

- BSI Flex 8670, *Built environment – Core criteria for building safety in competence frameworks – Code of practice*²;
- PAS 8671, *Built environment – Framework for competence of individual Principal Designers – Specification*;
- PAS 8672, *Built environment – Framework for competence of individual Principal Contractors – Specification*; and
- PAS 8673, *Built environment – Competence requirements for the management of safety in residential buildings – Specification*.

¹ Recommendations were first set out in *Raising the bar: Interim report*, available at <https://www.cic.org.uk/news/construction-and-fire-industries-set-out-sweeping-proposals>.

² Downloadable from <https://www.bsigroup.com/en-GB/industries-and-sectors/construction-and-the-built-environment/built-environment-competence-standards/>.

Information about this document

The Building Safety Act 2022 [2] and subsequent secondary legislation will require the contractor with control over the building to be appointed as the Principal Contractor. Where the Principal Contractor is an organization, there will be a requirement for them to designate an individual under their control who has the task of managing their functions as the Principal Contractor.

This PAS, therefore, is a competence framework for:

- an individual performing the role of the Principal Contractor (see 0.2); or
- an individual acting under the control of an organization appointed as the Principal Contractor who is designated to manage its functions (see 0.3).

Reference in this PAS to “Principal Contractor” encompasses both of the above roles unless otherwise stated.

Principal Contractors are expected to have the relevant skills, knowledge, experience and appropriate behaviours to plan, manage and monitor building work being undertaken as well as cooperate, communicate and coordinate their work with other dutyholders. In doing so, they are expected to liaise and share information with other dutyholders and take all reasonable steps to ensure the building work is carried out in compliance with the building regulations. In addition, Principal Contractors managing building work on higher-risk buildings (HRBs) are expected to be able to undertake the associated functions and duties.

This PAS covers all building work subject to building regulations but does not cover the duties of Principal Contractors under the Construction (Design and Management) Regulations 2015 [3] although the same individual could potentially undertake both roles. The primary role of the Principal Contractor under the Construction (Design and Management) Regulations 2015 [3] is to ensure, as far as reasonably practicable, the safety and health of those affected by the project, whereas the primary role of the Principal Contractor under the Building Safety Act 2022 [2] is to take all reasonable steps to ensure compliance with building regulations.

This PAS does not provide advice on means of training but instead considers it as a means to reach the required levels of competency.

Assessed capability. For the purpose of undertaking the role of Principal Contractor, users of this PAS are advised to consider the desirability of obtaining accredited independent assessment and certification.

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Where websites and webpages have been cited, they are provided for ease of reference and are correct at the time of publication. The location of a webpage or website, or its contents, cannot be guaranteed.

Use of this document

It has been assumed in the preparation of this PAS that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

There is also an anticipation that this PAS will be useful to:

- building sub-contractors and suppliers;
- professional bodies serving project and building management disciplines;
- building trade bodies, associations and federations;
- government agencies;
- qualification awarding organizations;
- clients undertaking their own building work;
- those bodies providing accreditation of individuals;
- property developers and property management consultants; and
- planning consultants.

Presentational conventions

The provisions of this PAS are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. “organization” rather than “organisation”).

Contractual and legal considerations

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Compliance with a PAS cannot confer immunity from legal obligations.

Particular attention is drawn to the following specific legislation:

- Building Safety Act 2022 [2]
- Construction (Design and Management) Regulations 2015 [3];
- Health and Safety at Work Act 1974 [4]; and
- Fire Safety Act 2021 [5].

0 Introduction

0.1 Background

Following the tragedy at Grenfell Tower in June 2017 and other major building fire incidents, the new Building Safety Regulator (BSR) has been established in England to oversee the safe design, construction and occupation of higher-risk buildings (HRBs). Whilst the establishment of the BSR in England is intended to oversee a new, more stringent regime for HRBs, it also aims to drive improvements in building safety and performance in all buildings.

As part of the regulatory transformation there is a requirement for two safety-critical roles, namely the Principal Designer and Principal Contractor with building safety responsibilities. These dutyholders are required to have the necessary skills, knowledge, experience and behaviours for the role, alongside any sector-specific competences. Essentially, these dutyholders require an overarching understanding of all aspects of building safety, and individuals carrying out the Principal Contractor role are expected to demonstrate they have the appropriate competence to:

- a) interrogate design and construction activity;
- b) challenge the quality of work and bad practices; and
- c) identify major hazards and minimize the risk to safety during building use.

0.2 Individual Principal Contractor

COMMENTARY ON 0.2

The role of the Individual Principal Contractor includes managing relationships and interfaces between all relevant parties during a project. This requires careful attention to roles, functions and duties with a clear focus on the building work and tasks. Users of this PAS can refer to the RIBA Plan of Work 2020 [6], particularly with regard to matters relating to fire safety.

The Individual Principal Contractor is expected to define and manage roles, responsibilities and accountabilities for activities and tasks for which they are responsible during a project.

0.3 Designated Individual Principal Contractor working under an Organizational Principal Contractor

COMMENTARY ON 0.3

A Designated Individual Principal Contractor working under the control of an Organizational Principal Contractor (OPC) is an individual appointed by the OPC to manage its functions of the Principal Contractor for the building work. The OPC is expected to have adequate organizational capability and commitment from its senior management team to support the Designated Individual Principal Contractor, including mentoring, professional development and time for reflection necessary to fulfil the role. The OPC also has a duty to ensure that the Designated Individual Principal Contractor has the relevant skills, knowledge, experience and behaviours.

To fulfil the duties of a Principal Contractor, the employing organization designates an individual to manage its functions as a Principal Contractor. This Designated Individual Principal Contractor is expected to have the same skills, knowledge, experience and appropriate behaviours as an Individual Principal Contractor, as well as recognizing the internal interfaces within the employing organization and other relevant stakeholders.

0.4 Issues relating to construction management competences

The Principal Contractor is required to plan, manage and monitor the building work during the construction phase. Additionally, the Principal Contractor is required to take all reasonable steps to cooperate with other dutyholders and coordinate matters relating to the building work to ensure it is in compliance with all relevant requirements. There is an expectation that Principal Contractor positions are likely to be drawn from those with the skills, knowledge, experience and behaviours in managing and constructing buildings.

No one individual can be expected to possess the full range of competences given the breadth and complexity of building works. However, Principal Contractors are expected to have sufficient technical expertise for ensuring building safety, compliance with building regulations and the quality of work by others under their responsibility. Principal Contractors are also expected to possess managerial expertise that enables them to effectively liaise with all others undertaking or supplying building work, materials/products or services for buildings. Being able to manage the information flow from the client and designer through to the building's end-users is critical with regard to compliance with building regulations so that all buildings are safe and perform throughout their lifetime.

It is important that the competences for all buildings and the additional competences for HRBs contained in this PAS are not treated as adjuncts to the core competences, but instead integrated into the already adopted range of proficiencies for those controlling construction projects.

Existing buildings significantly outnumber new developments, and residual risks associated with existing buildings are often unique due to the need to maintain the performance of these buildings. These buildings are often occupied during repairs, maintenance and improvement (RMI) work and therefore compliance with building regulations is just as important as during the construction of new buildings. Managing such building work is done in conjunction with those responsible for the safety of occupied buildings.

***NOTE** Potential contracting scenarios might lead to Principal Contractors also taking responsibility for design and therefore possibly the dual role of Principal Designer and Principal Contractor, in which case they would also require the competence for the Principal Designer role as defined in PAS 8671.*

1 Scope

This PAS specifies competence requirements for the role of Principal Contractor, based on the recommendations and core competence criteria set out in BSI Flex 8670, with regard to:

- a) roles and responsibilities;
- b) skills, knowledge and experience;
- c) behaviours and ethics;
- d) additional competences for higher-risk buildings (HRBs); and
- e) limits of competence.

This PAS also describes specific competencies common to all Principal Contractors and those which are additional for those undertaking the dutyholder role of Principal Contractor on HRBs.

This PAS is intended for use by:

- 1) professional institutions, licensing bodies and awarding organizations to assess the competence of the Principal Contractor, as well as regulators and enforcing authorities; and
- 2) Principal Contractors to determine their own competence limitations and to identify areas of development.

This PAS is also relevant to clients, building owners and leaseholders undertaking repairs, maintenance and improvements (RMI) to buildings.

This PAS does not cover:

- i) the requirements that are specific to the duty role holder of Principal Contractor under the Construction (Design and Management) Regulations 2015 [3];
- ii) team or organizational competence and resource capacity of organizations acting as Principal Contractors under the Construction (Design and Management) Regulations 2015 [3];
- iii) the organizational or team competence of the Principal Contractor; and
- iv) specific education and training requirements, although it does provide advice and guidance on a range of options (see Annex A).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions of this PAS³⁾. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BSI Flex 8670, *Built environment – Core criteria for building safety in competence frameworks – Code of practice*⁴⁾

³⁾ Documents that are referred to solely in an informative manner are listed in the Bibliography.

⁴⁾ This PAS also gives an informative reference to BSI Flex 8670 v3.0:2021-04.

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this PAS, the terms and definitions given in BSI Flex 8670 and the following apply.

3.1.1 accreditation

formal recognition by a regulated body that an organization engaged in assessment and certification activities is operating according to a prescribed standard

3.1.2 building safety risk

risk to the safety of persons in or about a building arising from fire, structural failure and any other prescribed matter

3.1.3 building work

erection, extension, material alteration and installation of controlled fittings and services to a building

[SOURCE: Building Regulations 2010 [7]]

3.1.4 competency (competencies)

skill, knowledge, experience or behaviour, required to achieve a defined outcome

3.1.5 construction

building activities involving new build, repairs, maintenance and improvement to existing buildings

NOTE Includes processes and works of the contractor on and off-site.

3.1.6 functional areas

group of Principal Contractor functions

NOTE Contained in Annex B, Table B.1 to Table B.9.

3.1.7 gateway(s)

three key stages in design and construction, and introducing new requirements during construction that apply to higher-risk buildings

NOTE The gateway comprises three elements as follows:

- a) *Planning Gateway one – at the planning application stage;*
- b) *Planning Gateway two – before building work starts; and*
- c) *Planning Gateway three – when building work is completed.*

3.1.8 life safety

preventive and protective measures for the safety of people from the risk of fire spread and structural failures including other regulatory prescribed hazards, and public safety and health

3.1.9 public safety

preventive and protective measures to safeguard the wellbeing of members of the general public

[SOURCE: Health and Safety at Work etc Act 1974 [4]]

3.1.10 safety case

all the information required to manage the risk of fire spread and the structural safety of a building

[SOURCE: HSE Guidance: Safety cases and safety case reports, modified [8]]

3.2 Abbreviated terms

For the purposes of this PAS, the following abbreviated terms apply.

BSR	Building Safety Regulator
CPD	continuing professional development
DLUHC	Department for Levelling Up, Housing and Communities
HRB	higher-risk building
RMI	repairs, maintenance and improvements
SMART	specific, measurable, achievable, realistic and time-bound

4 Roles, responsibilities and competences

COMMENTARY ON CLAUSE 4

The core competences in this PAS (see Annex B) are to be interpreted in the context of the roles, functions, activities and tasks relevant to the Principal Contractor as defined in BSI Flex 8670.

The Principal Contractor should embed the principles of the golden thread⁵⁾ of information, as defined in BSI Flex 8670 v3.0:2021-04, 3.14, and become the custodian for the construction phase, including taking all reasonable steps to be satisfied of the accuracy of the Principal Contractor information being added to the golden thread of information.

The Principal Contractor is either site-based or has sufficient presence on site to plan, manage, supervise and monitor the building work throughout the entire construction phase, including construction planning, construction, commissioning and handovers (including phased-handovers). The scope of this PAS does not necessarily include construction site supervisory roles as defined in the Setting the bar report [1].

4.1 Roles and responsibilities

COMMENTARY ON 4.1

The Principal Contractor is expected to hold a core level of competence regardless of the building project type and complexity, although specific competencies, as defined in this PAS, differ according to the demands of each individual building project. Those responsible for HRBs have additional duties and competences. The Principal Contractor should understand and embed ethical and behavioural practices as defined in this PAS and BSI Flex 8670.

The following roles and responsibilities focus on the legal and moral duties to provide safe and compliant buildings (when correctly managed and maintained) for occupants.

The Principal Contractor shall be able to:

- a) plan, manage and monitor the building work and understand the requirements of building regulations and other relevant legislation;
- b) cooperate, communicate and coordinate their work with other dutyholders;
- c) liaise and, where necessary, work with all stakeholders who impact on the design, construction planning, construction and handover phases on matters affecting the lifetime safety and related quality assurance of the building work;
- d) plan and coordinate the building work to allow time for delivery of a technically compliant and safe building, including the surrounding environment for the occupants;
- e) use reliable and nationally recognized sources of industry information and standards in decision making;
- f) professionally lead and develop the competences of those under their control and provide encouragement and clear, proportionate guidance to the supply chain;
- g) recognize the limit of their own competences and of those under their control;
- h) determine when to engage with experts holding such specialist skills, knowledge, experience and behaviours and to assist them in demonstrating their compliance;
- i) manage project budgets without compromising the safety of people in and around the building;
- j) procure appropriately quality assured materials, products and building systems that are suitable for their intended purpose and remain safe for their anticipated lifetime;
- k) manage and maintain all relevant information relating to the building, including records of work, inspections and tests to demonstrate compliance in accordance with appropriate codes of practice and guidelines; and
- l) manage the flow of information derived from the design and construction processes and maintain its passage to the Client or other dutyholders and the Accountable Person.

⁵⁾ The principles of the golden thread are set out in the Building Regulations Advisory Committee (BRAC) golden thread working group report, which can be found at <https://www.gov.uk/government/publications/building-regulations-advisory-committee-golden-thread-report/building-regulations-advisory-committee-golden-thread-report>.

The Principal Contractor shall develop their knowledge, skills, experience and appropriate behaviours in accordance with Annex B, in order to support and advance a strong safety culture.

NOTE Annex B expands on the above high-level responsibilities which are incorporated and considered in the context of the functional areas that comprise the role of the Principal Contractor, and where they are also mapped against the core competences as defined in BSI Flex 8670.

4.2 Skills, knowledge and experience

COMMENTARY ON 4.2

Competence derives principally from an accumulation of learning and experience, which assists the development of skills and can influence ethics and attitude. This process includes both formal and informal activities such as education and training combined with practical experience. Gaining practical experience is often best undertaken under supervision until such time as the individual is proven competent to work independently. The continuing growth of competence requires education and training as part of a commitment to continuing professional development (CPD) but also mentoring and time for reflection. Knowledge, which can be gained through formal or informal learning, is an essential building block of competence leading to the development of skills. Collectively, skills, knowledge and experience equip an individual with the means to fulfil a function and perform an activity or task that also requires the appropriate behaviours (see 4.3).

The Principal Contractor shall meet the competence requirements set out in Clause 5 with respect to skills, knowledge, experience and behaviours for non-higher-risk buildings and the additional competences in relation to more stringent requirements for HRBs. The Principal Contractor shall maintain competence through a commitment to CPD.

4.3 Behaviour and ethics

COMMENTARY ON 4.3

The safety culture of an organization is understood to be the product of individual and group values, attitudes, perceptions, competences and patterns of behaviour that determine the commitment to, and the style and proficiency of, an organization's management. To achieve the desired culture change in the construction industry requires integration of effective behavioural competence relevant to the role, function, task and activities of individuals.

A competent individual is one who has the relevant skills, knowledge and experience, combined with appropriate behaviours. These enable the competent individual to fulfil a defined role, function or activity and carry out specified tasks. Historically, there has been an emphasis on skills, knowledge and experience at the expense of behavioural competence, which has created a work culture within the building sector that is strong on demonstrating a capability but weak on actually completing satisfactory and compliant work. The role of the Principal Contractor is about behaviours as much as skills, knowledge and experience.

The approach taken in BSI Flex 8670, which is reflected in this PAS, is to embed appropriate behaviours in the functions, activities and tasks that are required to manage the construction phase of a building project. Instead of behaviours appearing detached from the very act of work, they are an intrinsic part of it. There has to be a sense of individual responsibility and accountability as part of a strong, effective safety culture.

The Principal Contractor shall promote building safety and adhere to the behaviours prescribed in BSI Flex 8670 and Clause 6 of this PAS.

NOTE Behavioural competence includes anticipating, identifying and challenging unsafe or inappropriate behaviours and escalating concerns through reporting or whistleblowing mechanisms, as noted in BSI Flex 8670 v3.0:2021-04, Clause 5.

4.4 Additional Principal Contractor competences for higher-risk buildings

COMMENTARY ON 4.4

A whole-building approach and integrated overview of the lifecycle of a building, as well as an increased risk awareness relating to fire spread, structural failure and other prescribed regulatory hazards relating to HRBs, is especially paramount.

Amendments to the Building Act 1984 [9] allow for provisions in building regulations for the establishment of Gateway two (current deposit of plans stage) and Gateway three (current completion certificate stage) to ensure that building regulations compliance, including building safety risks, are considered at each stage of an HRB's design, construction and handover. Gateways two and three are stop/go decision points that are passed before a development can proceed to the next stage.

In design and construction the golden thread of information holds the data needed to demonstrate compliance with building regulations (including fire and structural safety building information). In occupation, the golden thread of information holds the data needed to manage fire and structural safety. This information is held digitally to specific standards and is used to enable those responsible for the building to have the required information to ensure the building is compliant with building regulations and once the building is in occupation, to manage fire and structural safety of the building.

In the construction control plan, dutyholders need to describe the strategies they have in place for managing building work during construction such that compliance with applicable building regulations is maintained. In particular, they need to have a change management strategy which sets out how deviations from approved plans and documents that arise during construction would be managed and recorded.

The Principal Contractor shall meet the additional competences required to comply with the duties for HRBs. Specifically, the Principal Contractor shall have the skills, knowledge, experience and behaviour to:

- a) contribute to the planning and development of the construction control plan, understand the drivers of compliance with the applicable building regulations and record evidence of that compliance;
- b) liaise with other dutyholders, including the Client and Principal Designer, and understand the regulatory obligations (including building regulations) in respect of signing-off key information, including the compliance of the “as-built” building;
- c) coordinate matters and understand the drivers of compliance with regard to all those involved in the building work;
- d) establish that all those working on the construction of HRBs, including contractors and building system providers, are aware of their duties and have the competence to carry out the construction activities for the safety of the building’s occupants;
- e) maintain the construction control plan (which forms part of the golden thread of information) during the construction phase, detailing full and accurate records of all changes (including justifications) to the approved design;
- f) establish an obligatory system for mandatory occurrence reporting on structural and fire safety, and other regulatory prescribed hazards, that enables the workforce to report potential occurrences which could cause a significant risk to life safety;
- g) complete the construction control plan, sign-off the required documentation, including the compliance declaration, and contribute to the Fire and Emergency File;
- h) contribute to an appropriate handover of information to the Accountable Person; and
- i) undertake the additional duties for managing the construction phase of HRBs (see Clause 5).

NOTE *In Clause 5, the above additional competences for HRBs are incorporated and considered in the context of the functional areas that comprise the role of the Principal Contractor and where they are also mapped against the core competences as defined in BSI Flex 8670.*

4.5 Limits of competence

COMMENTARY ON 4.5

The competence of the Principal Contractor is critical in ensuring they recognize potential building safety risks and can apply the right measures to manage those risks during the construction phase of a building project.

It is also critical that any individual involved in the building work does not act beyond their known competence limits, or ask others to do so, thus avoiding exposing themselves and potentially other people to a wide range of risks. Principal Contractors should understand that this not only applies to people affected during the construction phase of a building project but also to occupants in and about completed buildings. Building work activities are wide and varied and specialist advice or guidance should be sought whenever a Principal Contractor or another worker’s own limit of competence is reached.

Principal Contractors should also be aware of when and how to check that third parties who are procured, appointed or contracted to undertake work are themselves competent to manage the limits of their own competence and those working under their supervision, and that they have appropriate tools and resources to do so. A positive culture of both disclosure and trust is required such that people and organizations are willing to acknowledge and manage the limits of their competence.

The Principal Contractor shall be able to recognize and evaluate their own competence limitations and seek appropriate assistance where and when necessary. The Principal Contractor shall also be aware of and mitigate the competence limitations of those undertaking the building work.

5 Specific minimum competencies

COMMENTARY ON CLAUSE 5

This clause describes the specific minimum competencies that amplify the functions of the Principal Contractor under each of the areas listed in Annex B, Table B.1 to Table B.9. There is a high degree of interdependence between these competencies that goes beyond the mapping of functions to the core competence criteria described in BSI Flex 8670. A holistic treatment of the relevant subject matter is therefore needed when designing assessment.

All of the specific minimum competencies in Clause 5 relate to the life safety of the occupants as well as public safety in and about buildings. These are linked to the Building Safety Act 2022 [2] and not the Construction (Design and Management) Regulations 2015 [3], which are outside the scope of this PAS.

Where appropriate, some sub-clauses below are further divided to distinguish between requirements applying to all buildings (including HRBs) and those additional requirements for HRBs only.

5.1 General

For the purpose of providing a safe and compliant building, the Principal Contractor shall be able to meet the functions and their specific competencies as defined in 5.2 to 5.10.

5.2 Legal and contractual requirements in relation to the discharge of their duties (all buildings)

The Principal Contractor shall be able to:

- a) understand, in relation to the discharge of their duties, applicable legislation and how it is intended to regulate the design (including any design and specification undertaken by the Principal Contractor), building work, management, operation, use and demolition of buildings; and
- b) recognize the drivers of compliance and the consequent legal duties and obligations in regard to building and life safety.

5.3 Managing building work

5.3.1 All buildings

The Principal Contractor shall be able to:

- a) recognize the importance of health, safety and wellbeing for the end-users and liaise with other dutyholders;
- b) recognize the key differences between hazard identification and risk assessment and outline a basis for managing risks;
- c) recognize risks and risk responses (or treatments) including the ability to manage risks other than by reduction (i.e. mitigation) and explain how residual risks are managed as well as describing the procedure for dealing with matters beyond their control; and
- d) take responsibility for managing building safety during the construction phase of a building project such that the building and building systems are compliant and safe for occupation.

5.3.2 Higher-risk buildings

The Principal Contractor shall additionally be able to:

- a) develop a formal approach to managing building work for HRBs and demonstrate how safety risks can be reduced through effective measures and industry best practice;
- b) manage the development of the construction control plan during the construction phase so that building safety risks arising from construction activities, including fire, structural, other regulatory prescribed hazards and public safety, are fully recorded and addressed as part of the obligatory Gateway regime; and
- c) demonstrate that building work carried out in occupied buildings does not undermine the existing safety arrangements as set out in the safety case.

5.4 Planning and organizing production (all buildings)

The Principal Contractor shall be able to:

- a) define a procurement process that maintains openness and transparency in decision making, and assess proportionately the competence of contractors and suppliers;
- b) perform due diligence on the prequalification and selection of contractors, suppliers and service providers, including establishing authenticity and integrity of information and record keeping;
- c) plan and organize safe building projects for their lifecycle and assess their resource requirements to meet statutory requirements;
- d) procure quality assured materials, products and building systems suitable for their intended purpose;
- e) assess safety implications during the construction phase planning process and adopt a risk-based approach to managing project budgets and financial controls; and
- f) plan and coordinate building work to allow time to deliver a safe and compliant building, including surroundings, for the occupants.

5.5 Managing construction processes/ production (all buildings)

The Principal Contractor shall be able to:

- a) demonstrate they, and those undertaking building work, are aware of their role and limitations, their legal and moral duties, inter-related building phases, activities and systems and their impact on safe building practices and public safety;
- b) monitor their own competence levels and those undertaking on and off-site construction activities and services, including maintaining accurate and updated records;
- c) manage and supervise the quality of building work by adopting best practice;
- d) continuously monitor the procurement of building systems and coordinate the building work of contractors, suppliers and service providers;
- e) oversee the inspection and testing of safety critical materials, components and building systems upon which the safety of persons in and about completed buildings depend; and
- f) manage project time and budgets without compromising the safety and compliance of the building throughout its lifetime.

5.6 Leadership, decision making and change management

5.6.1 All buildings

The Principal Contractor shall be able to:

- a) recognize the purpose of leadership, its place in management and effects on personnel, including understanding how it can be used to achieve defined objectives;
- b) describe and manage situations in which delegation and empowerment can be effective and the means for achieving them;
- c) recognize indicators of fraud, irregularity and corrupt practices, the measures to avoid them and steps to be taken when they occur;
- d) develop, maintain and record plans to manage and control change, and to assess their impact on the build process, including building occupants;
- e) analyse, appraise and integrate learning from experiences and best practice to improve buildings and life safety; and
- f) use reliable and nationally recognized sources of industry information and standards in decision making.

5.6.2 Higher-risk buildings

The Principal Contractor shall additionally be able to evaluate and update the construction control plan during the construction phase, providing full and accurate records of any changes (including justifications) to the building and building systems.

5.7 Liaising with the Client, other stakeholders and regulatory bodies

5.7.1 All buildings

The Principal Contractor shall be able to:

- a) liaise with all stakeholders and regulatory bodies who impact the construction planning, construction and handover phases on matters affecting the lifetime quality and safety of the building; and
- b) identify and respect the Client's needs and requirements whilst engendering a trusting, open and honest relationship with the Client and their team.

5.7.2 Higher-risk buildings

The Principal Contractor shall additionally be able to:

- a) liaise with the regulators and other relevant dutyholders, including the Client, Principal Designer and Accountable Person, and understand their regulatory obligations, including the signing-off of key information demonstrating how the "as-built" building complies with the requirements of building regulations/standards;

- b) cooperate with the Principal Designer on interpreting and improving design information while maintaining a shared digital documentation control system focusing on compliance and safety improvements; and
- c) demonstrate an understanding of the building's safety case and liaise with the design team on matters that impact on any control measures described within it.
- d) manage the coordination of safety and quality checks such that any alterations or deviations are approved and do not impact on the building safety for end-users; and
- e) communicate to all those working on all buildings, including contractors and building system providers, their duties as well as evaluate their competences to carry out the construction activities safely.

5.8 Developing people and teams

5.8.1 All buildings

The Principal Contractor shall be able to:

- a) work respectfully with other people and promote respect throughout the construction workforce undertaking building projects;
- b) define roles, responsibilities and targets for effective teamwork and to establish commitment to shared objectives in conjunction with others working across the building project;
- c) identify the skills, knowledge, experience and appropriate behaviours of those directly appointed by them, or their organization, in the building work and develop training plans to address gaps in competences; and
- d) enable the construction workforce to make workplace decisions for which they are accountable and responsible and maintain an organizational safety culture.

5.8.2 Higher-risk buildings

The Principal Contractor shall additionally be able to develop and maintain competences that underpin the safety of HRBs and carry out the additional duties for managing the construction phase.

5.9 Managing the quality of building work (all buildings)

The Principal Contractor shall be able to:

- a) embed a proven quality management system that directs, supervises, controls and coordinates quality throughout the build process and facilitates a lifelong safe building for occupants;
- b) continuously monitor and test building materials, components and systems during the construction phase using appropriate methods of measurement, key safety indicators, reviews and audits;
- c) implement processes and systems for checking the quality profile and references of suppliers of materials, products, building systems and services prior to engagement;

5.10 Managing information

5.10.1 All buildings

The Principal Contractor shall be able to:

- a) recognize the importance of accurate and reliable documented information, including knowing how to deal with any missing information and assess the suitability of information management systems for the build process;
- b) develop a digital strategy for the build management, including all appropriate data and information important to the lifetime compliance and safety of the building; and
- c) promote, where appropriate and practical, the continuous adoption of building information throughout the construction phase and thus maintaining accurate records of the as-built building.

5.10.2 Higher-risk buildings

The Principal Contractor shall additionally be able to:

- a) implement a system for mandatory structural, fire and other regulatory prescribed safety occurrence reporting, enabling workers/employees to report potential occurrences which could cause risks to life safety;
- b) develop and update the golden thread of information containing matters affecting the building compliance, including fire, structural and other regulatory prescribed safety information, which supports those with responsibilities for the occupation phase and lifecycle of the building;
- c) examine the construction control plan and sign-off the required documentation, including declarations of compliance, and contribute to the Fire and Emergency File; and
- d) manage the flow of information from the construction phase processes and facilitate its passage to the Client or Accountable Person.

6 Behaviours

COMMENTARY ON CLAUSE 6

Possessing a construction-phase management or safety management process does not in itself translate to a building safety system or safety culture. The success of whatever process or system is in place still hinges on the attitudes and behaviours of people in the building project or organization. In particular, behavioural competence, when combined with appropriate skills, knowledge and experience, helps to engender a sense of individual responsibility and accountability as part of an effective and strong safety culture.

It is recognized that without the application of appropriate checks, commercial pressures can result in undesirable customs and practices that can lead to increased life safety risks. The Principal Contractor should be mindful of such pressures throughout the construction process.

The following five core competence criteria reflect and contextualize the recommendations in BSI Flex 8670 v3.0:2021-04, Clause 5, although they are not intended to be exhaustive.

6.1 Ethical principles, standards and conduct

The Principal Contractor shall demonstrate they are able to act ethically and contribute to constructing a safe and compliant building for its lifetime.

6.2 Leadership, teamwork and communication

The Principal Contractor shall demonstrate they are able to effectively lead and communicate with the construction phase team in establishing a strong and collaborative safety culture that translates to a safe and compliant building for end-users and for its lifetime.

6.3 Individual and organizational competence

The Principal Contractor shall demonstrate they are able to manage their own competence and that of others involved in the building work, as well as contribute to the competence and learning culture of the organization.

6.4 Personal responsibility and accountability

The Principal Contractor shall demonstrate they are able to take responsibility and be accountable for their own actions and shall demonstrate that they are able to manage the actions of others under their control during the construction phase of the building work.

6.5 Duty of care to others including building occupants

The Principal Contractor shall demonstrate a duty of care to others involved in, or affected by, the building work in and about buildings, including building occupants and members of the public. The Principal Contractor shall also maintain a communications system that enables reporting of risks or concerns throughout the construction and handover phases.

7 Competence management

COMMENTARY ON CLAUSE 7

Construction projects can range from routine maintenance by micro-firms to very large and complex buildings being managed by multinational construction organizations. For larger and more complex buildings, the managerial function of the Principal Contractor is likely to be more significant, although responsibility and accountability remain the same. Furthermore, Principal Contractors responsible for in-scope HRBs are subject to additional legal duties and these apply irrespective of the nature, scale and complexity of the HRB project.

The Principal Contractor should take all reasonable steps to ensure every person/organization under their control is sufficiently competent to carry out their work. The competence management system should be subject to effective supervision and monitoring, aided by a well-designed risk control system for the building work, capturing and managing key information including human capabilities and limitations.

The Principal Contractor shall demonstrate they are able to develop and maintain the competences to undertake the duties prescribed by legislation and apply individual skills, knowledge, experience and behaviours to the level required dependent on the nature, size and complexity of the building work, including additional competences attributed to HRBs.

The Principal Contractor shall implement a reliable and comprehensive competence management system for those individuals working on the construction phase of a building project that demonstrates they possess the relevant skills, knowledge, experience and behaviours at an appropriate level, including any additional competences for HRBs.

Annex A (informative)

Education, training and competence assessment

COMMENTARY ON ANNEX A

This annex is intended to provide advice and guidance on a range of vocational education and training options currently available to those acting as a Principal Contractor as defined in this PAS. It also gives advice and guidance on assessments, validation and revalidations. It is not intended to be comprehensive or to be relied upon as the sole source of information or support.

In alignment with BSI Flex 8670, this PAS is not intended to replace existing professional and technical training or competence frameworks for building professionals. However, it is important that these are reviewed and updated to reflect the full range of competences required for the Principal Contractor role.

In order to address the recommendations of BSI Flex 8670 and this PAS, existing competence frameworks as well as current education and training programmes should address the Principal Contractor competences for all buildings and the additional competences for HRBs where appropriate.

For HRBs, competence updating should include the additional requirements of a dutyholder as well as specific competences relating to life, fire, structural and other regulatory prescribed requirements, including public safety.

The management of an individual's CPD should include the development of a professional development plan that identifies competence gaps and areas requiring further development, and records successful completion of professional development activities. The plan should adopt a risk-based approach with SMART objectives and be regularly updated and verified by a person authorized and competent to do so.

Further and higher education, private training providers and some construction organizations deliver a range of learning and development programmes for individuals entering the profession, changing career or updating their skills and knowledge for job roles in the construction industry.

Knowledge is typically delivered through a variety of methods, including CPD and toolbox talks, instructions, classroom-based and online learning, mentoring as well as self-learning. Skills are typically developed through carrying out a range of tasks to pre-determined standards, while learning through experience includes reflection on performance. Assessment regimes include National Vocational Qualifications (NVQs) for skills and knowledge and there are numerous bodies that accredit knowledge learning.

Effective behaviours are strongly linked to a robust safety culture and any change of culture requires the role of those involved in the construction of safe buildings to have integrated behavioural competences.

The Principal Contractor should monitor that individual professional development programmes aimed at enhancing the skills and knowledge of those undertaking construction activities under their control are appropriate, SMART and quality assured.

The regulation of higher education is an area of devolved responsibility in the UK, therefore, England, Wales, Scotland and Northern Ireland each have different regulatory bodies and frameworks. The Quality Assurance Agency for Higher Education (QAA) performs quality and standards assessment functions to support the regulatory process across the UK. National Occupation Standards (NOS) are statements of performance for individuals to achieve when carrying out workplace functions as well as setting specifications for the underpinning knowledge and understanding.

The Principal Contractor should check qualifications from outside the UK by referring to official sources that can be relied upon for verification of international skills, competences and qualifications such as the UK ENIC (formally NARIC) information service.

Assessment can take many forms and it is important to distinguish between skills, knowledge, experience and behaviours. Multiple methods of assessment are more likely to produce a fairer and more reliable assessment of an individual's competence to perform the role of Principal Contractor than a single method that does not include consideration of the interrelationships of the elements of competence.

The Principal Contractor is expected to monitor the validation and periodic revalidation of individual workforce competences, including their own. The validation process should assess the competences of the individual for the role, and the revalidation assessment should provide assurance that the individual's skills, knowledge, experience and appropriate behaviours have been sufficiently maintained or developed.

The time period between revalidation depends on a range of factors, including the level of risk and the rate of change of skills and knowledge relevant to the role. During this period CPD, including experiential learning, should be evidenced.

CPD is best undertaken as part of a planned programme of activity or recorded personal development plan pertinent to the role and responsibilities of individuals involved in construction activities. It is good practice and a requirement for employers to adopt a framework for assessing the effectiveness of CPD undertaken by the Principal Contractor and the workforce.

Third-party assessment and validation of Principal Contractors can be provided by organizations that are qualified for this purpose either through their constitution and codes of conduct or through accreditation by a regulated body. Professional bodies, learned societies and trade bodies, whose independence and standards of conduct are open to scrutiny, are appropriate organizations in this context. All organizations seeking to assess and validate the competence of Principal Contractors are expected to show how they intend to undertake their assessments and the safeguards they have in place to prevent malpractice or maladministration.

NOTE 1 *UK ENIC operates under contract to the Department for Education and serves as the information service on the recognition of overseas qualifications as well as providing information on education systems.*

NOTE 2 *Assessment, including formal acknowledgement of prior learning and achievement, can be achieved through either accreditation of prior certificated learning or accreditation of prior experiential learning, where learning accomplished outside education or formal training systems is assessed and recognized for academic purposes.*

Annex B (normative)

Functions and minimum competences

COMMENTARY ON ANNEX B

This PAS aligns with the principle of embedding the core competence criteria contained within BSI Flex 8670 in that knowledge, skills, experience and appropriate behaviours are integrated in order to support and develop a strong safety culture.

The high-level responsibilities of the Principal Contractor referred to in 4.1 have been incorporated into the functions that are contained in Table B.1 to Table B.9 below. These functions, along with their main underpinning activities/tasks, are mapped to the five core competence criteria listed below and detailed in BSI Flex 8670. The completed mapping translates to specific minimum competencies in Clause 5.

B.1 General

A coordinated approach shall be taken to the possession of competences such that the relationships and interdependencies between individual functions, activities and tasks are understood and can be applied in practice. The extent and level of competence shall be determined by the level of risk associated with non-higher-risk buildings and those associated with higher-risk buildings.

NOTE 1 Risk factors include (but are not limited to) building and building system complexities, form of structure and its stability, building site challenges and location as well as condition, materials used and age of existing buildings.

NOTE 2 The Principal Contractor should identify the resources necessary for the proper and safe execution of the building work.

The Principal Contractor shall possess competence in each of the following functional areas:

- a) legal and contractual requirements in relation to the discharge of their duties (see **B.2**);
- b) managing building work (see **B.3**);
- c) planning and organizing production (see **B.4**);
- d) managing construction processes/production (see **B.5**);
- e) leadership, decision making and change management (see **B.6**);
- f) liaising with the Client, other stakeholders and regulatory bodies (see **B.7**);
- g) developing people and teams (see **B.8**);
- h) managing the quality of building work (see **B.9**); and
- i) managing information (see **B.10**).

Within these functional areas, the Principal Contractor shall have knowledge and understanding of the following core competence criteria:

- 1) behavioural competence;
- 2) fire safety, structural safety and public safety;
- 3) managing building safety;
- 4) knowledge management and communication; and
- 5) buildings as systems, building systems and construction products.

NOTE 3 The above core competence criteria apply to all three sector-specific frameworks in the PAS series and originate from BSI Flex 8670 v3.0:2021-04, Table 1 to Table 5 (where they are defined).

NOTE 4 Table B.1 to Table B.9 below (mapping of core competence criteria with the functions of the Principal Contractor) are split into two main columns (HRBs and non-HRBs) and are read independently. Each of these main columns are split further into five sub-columns and are titled in accordance with the core competence criteria from BSI Flex 8670.

NOTE 5 Managing building safety, in B.1 3) above, applies general and specific minimum competence criteria to all dutyholders at all stages, including ones relating to the Principal Contractor undertaking the building work.

B.2 Legal and contractual requirements in relation to the discharge of the Principal Contractor duties

COMMENTARY ON B.2

Attention is drawn to the Principal Contractor's competence requirements in discharging legal and contractual obligations, including knowledge of the legal framework that impacts on building safety and how to comply with relevant regulations that especially relate to fire, structural, other regulatory prescribed hazards and life safety during the lifecycle of the building. This includes but is not limited to the statutory duty on contractors to provide fire safety information to owners or occupiers of buildings at handover.

The Principal Contractor shall possess the minimum competences in relation to the legal and contractual functions listed in Table B.1.

Table B.1 – Mapping of legal and contractual functions to core competence criteria in BSI Flex 8670

Legal and contractual functions	Minimum competences									
	Non-HRBs					HRBs				
	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building construction products	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building construction products
Legal framework Legislation and how it is intended to regulate the design, construction, management, operation and use of buildings	✓	✓	✓		✓	✓	✓	✓		✓
Compliance Compliance, consequent legal duties and obligations in regard to building and life safety	✓	✓	✓			✓	✓	✓	✓	

The Principal Contractor shall possess the minimum competences in relation to managing building work functions listed in Table B.2.

Table B.2 – Mapping of managing building work functions to core competence criteria in BSI Flex 8670

Legal and contractual functions	Minimum competences									
	Non-HRBs					HRBs				
	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products
Plan for a safe and compliant building Planning, managing and monitoring building work during the construction phase	✓	✓	✓		✓	✓	✓	✓	✓	✓
Issue management Issues and risks, including procedures for dealing with issues	✓	✓	✓	✓		✓	✓	✓	✓	
Hazard and risk assessment Hazard identification, risk assessment and managing risks	✓	✓	✓		✓	✓	✓	✓	✓	✓
Risk response Risk responses, including managing residual risks	✓	✓	✓		✓	✓	✓	✓	✓	✓
Construction control plan Development for the construction phase and record as part of the obligatory Gateway regime		✓	✓		✓		✓	✓	✓	✓
Manage safe building risks Managing building safety during the construction phase of a building project such that the building and building systems are compliant and safe for the occupants	✓	✓	✓		✓	✓	✓	✓	✓	✓

B.4 Planning and organizing production

COMMENTARY ON B.4

Overseeing the planning of the construction phase to ensure safe and compliant building work is an important function of the Principal Contractor, and such planning should take into account the safety of anyone occupying or visiting a building or its surroundings throughout its lifetime.

The construction phase planning and organization process should include potential changes and their associated risks in design or other factors that might affect the building safety for the occupants.

The Principal Contractor shall possess the minimum competences in relation to the planning and organizing of production functions listed in Table B.3.

Table B.3 – Mapping of planning and organizing functions to core competence criteria in BSI Flex 8670

Legal and contractual functions	Minimum competences									
	Non-HRBs					HRBs				
	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products
Procurement process Procurement process, including assessing the competence of contractors and suppliers	✓	✓	✓			✓	✓	✓		
Resource planning Planning and organizing safe building projects, including assessing their resource requirements		✓	✓				✓	✓		
Resource procurement Procuring safe and quality assured materials, products and building systems		✓			✓		✓			✓
Cost management Safety implications of cost and value decisions during the construction phase, adopting a risk-based approach and setting up financial controls that promote building safety	✓	✓	✓			✓	✓	✓		
Planning and coordinating Coordinating the building work to allow sufficient time to deliver a safe and compliant building	✓	✓	✓			✓	✓	✓		

B.5 Managing construction processes/production

COMMENTARY ON B.5

It is generally acknowledged that there are a number of causes resulting in structural and fire safety failures, including not adhering to structural and safety design requirements, defective, improper or erroneous use of materials and poor-quality workmanship and supervision.

The erection, assembly and inspection of fire, structural systems and other regulatory prescribed hazards as well as site supervision and independent scrutiny of the building work require high levels of competence, often in very specialized areas of activity. It is important that, given the many risks associated with fire spread, structural failure and other regulatory prescribed hazards, the undertaking especially of fire protections and structural installation, inspection and acceptance of work is reserved for individuals whose competence is assured.

For work on HRBs it is vital that Principal Contractors have an awareness of potential interactions between components of a building and how any work undertaken impacts the building safety and the surrounding environment. The Principal Contractor should have the ability or appropriate means to identify risks and have the competence to manage the quality of these works, including the process for raising concerns and taking of mitigating actions in relation to all building safety matters.

The level of care and attention to building work involving RMI to existing buildings is the same as for new builds.

The Principal Contractor shall possess the minimum competences in relation to managing construction processes/production functions listed in Table B.4.

Table B.4 – Mapping of managing construction processes/production functions to core competence criteria in BSI Flex 8670

Legal and contractual functions	Minimum competences									
	Non-HRBs					HRBs				
	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products
Awareness and understanding Awareness of roles, limitations, legal and moral duties	✓	✓			✓	✓				✓
Ensuring competence Monitoring competence levels of self and those undertaking building work activities	✓			✓		✓		✓		
Supervision and control Managing the quality assurance of building work	✓		✓		✓	✓	✓			✓
Contractors and suppliers Management of contractors, sub-contractors, suppliers and service providers		✓	✓	✓			✓	✓	✓	
Fire, structural and other prescribed hazards Inspection and testing regime of critical building systems and components		✓	✓		✓		✓	✓	✓	✓
Managing time and cost Managing project time and budgets without compromising safety and compliance	✓			✓		✓			✓	✓

B.6 Leadership, decision making and change management

COMMENTARY ON B.6

Investigations following major disasters nearly always find inadequate workforce competence as a significant factor in failures, but it is also widely accepted that there should be competent leadership from the top down.

The Principal Contractor shall possess the minimum competences in relation to leadership, decision making and change management functions listed in Table B.5.

Table B.5 – Mapping of leadership, decision making and change management functions to core competence criteria in BSI Flex 8670

Legal and contractual functions	Minimum competences									
	Non-HRBs					HRBs				
	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products
Leadership Leadership, its place in management and effects on personnel	✓		✓			✓	✓			
Delegation and empowerment Delegation and empowerment and the means for achieving it	✓		✓			✓	✓			
Ethical behaviour Indicators of fraud, irregularity and corrupt practices, including measures to avoid and deal with incidents	✓		✓			✓	✓			
Managing change Managing and controlling change, including assessing its impact on the build process		✓	✓		✓		✓	✓		✓
Lessons learned Appraising and integration of learning from experiences and best practice	✓			✓		✓		✓		✓
Construction control plan Evaluate and update the construction control plan during the construction phase		✓		✓	✓		✓	✓		✓
Decision making Sources of information in decision making	✓		✓	✓		✓		✓	✓	

COMMENTARY ON B.7

The Principal Contractor should liaise and share with the Principal Designer and Accountable Person any relevant information. In addition, if requested, the Principal Contractor should assist the Client in providing information to other designers and contractors.

The Principal Contractor shall possess the minimum competences in relation to liaison with the Client, other key stakeholders and regulatory bodies functions listed in Table B.6.

Table B.6 – Mapping liaison with the Client, other key stakeholders and regulatory bodies functions to core competence criteria in BSI Flex 8670

Legal and contractual functions	Minimum competences									
	Non-HRBs					HRBs				
	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products
Dutyholder liaison Liaison with other dutyholders and regulatory bodies on regulatory obligations		✓	✓	✓	✓		✓	✓	✓	✓
Stakeholder liaison Liaison with all stakeholders who impact on the construction planning, construction and handover phases			✓		✓			✓	✓	✓
Managing Client expectations Respecting the Client's needs and requirements	✓					✓		✓		
Design team liaison Interpreting and improving design information while supporting a shared digital documentation control system		✓	✓	✓	✓		✓	✓	✓	✓

B.8 Developing people and teams

COMMENTARY ON B.8

It is common for legislation aimed at protecting people to set requirements for dutyholders to check the competence of individuals they appoint to undertake works. In line with BSI Flex 8670, this PAS enables this principle to be extended more broadly so that competence assessment also includes those whose work impacts on the safety of buildings and their occupants.

Whilst oversight of competence might rest with professional, trade or training bodies, competence is ultimately an individual responsibility relevant to everyone working in the building industry. It is vital to embed building safety competence at all levels and across all roles, functions and tasks.

The Principal Contractor shall possess the minimum competences in relation to developing people and team functions listed in Table B.7.

Table B.7 – Mapping of developing people and team functions to core competence criteria in BSI Flex 8670

Legal and contractual functions	Minimum competences									
	Non-HRBs					HRBs				
	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge, management and communication	Buildings as systems, building systems and construction products	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products
Self-development Competences that underpin the safety of all buildings and the more stringent duties for managing the construction phase of HRBs	✓	✓	✓		✓	✓	✓	✓	✓	✓
Respect Promoting respect throughout the construction workforce undertaking building projects	✓		✓			✓		✓		
Teamwork and motivation Roles, responsibilities, and targets for effective teamwork	✓		✓			✓		✓		
Human resources management Skills, knowledge and experience of those employed in the building work	✓	✓	✓			✓	✓	✓	✓	
Empowerment Workforce decision making and organizational safety culture	✓		✓			✓	✓			

B.9 Managing the quality of building work

COMMENTARY ON B.9

High-quality work plays a key role in the smooth running of the build performance and completion process, but the lack of independent scrutiny and late discovery of quality issues can result in delays. Poor build quality can also translate to serious safety concerns by putting workers and others at risk and/or leading to a completed building that does not meet safety standards.

The CIOB Code of quality management [10] recognizes the responsibilities the industry has for the reputation, satisfaction, wellbeing and safety of those who use buildings. It promotes the improvement of standards by providing the tools and processes to help in the delivery of quality on building projects.

The Principal Contractor shall possess the minimum competences in relation to managing the quality of building work functions listed in Table B.8.

Table B.8 – Mapping of managing the quality of building work functions to core competence criteria in BSI Flex 8670

Legal and contractual functions	Minimum competences									
	Non-HRBs					HRBs				
	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products
Quality assurance Quality management systems that direct, supervise, control and coordinate quality throughout the build process	✓	✓	✓			✓	✓	✓	✓	✓
Managing duties and competences Awareness and execution of duties, including assuring the workforce are suitably competent to carry out the building work	✓	✓	✓		✓	✓	✓	✓	✓	✓
Monitoring and testing Methods of measurement, key safety indicators, reviews and audits	✓	✓	✓		✓	✓	✓	✓	✓	✓
Managing suppliers Quality and product safety profile, including references of suppliers of materials, products, building systems and services prior to engagement			✓		✓		✓	✓	✓	✓
Quality control Coordination of safety and quality checks, including alterations	✓	✓	✓		✓	✓	✓	✓	✓	✓

B.10 Managing information

COMMENTARY ON B.10

Efficient Information Management (IM) results in improved safety outcomes throughout the building lifecycle and can be enhanced by a well-coordinated digital process. Whilst the golden thread of information is mandatory for buildings in scope of the more stringent regime (HRBs), its principles could support the adoption of the golden thread of information for non-HRBs. Mandatory occurrence reporting and the construction control plan are stored in the golden thread of information.

For building work involving the RMI and demolition of buildings, it is vital to address any issues which might lead to damage to the structure or reduce fire integrity. The retention of information, including accurate records and photographs, through the use of digital systems and building management systems is expected.

The Principal Contractor shall possess the minimum competences in relation to managing information functions listed in Table B.9.

Table B.9 – Mapping of managing information functions to core competence criteria in BSI Flex 8670

Contractual and legal functions	Minimum competences									
	Non HRBs					HRBs				
	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products	Behavioural competence	Fire safety, structural safety and public safety	Managing building safety	Knowledge management and communication	Buildings as systems, building systems and construction products
Information management Documented information, including its accuracy, extent and suitability		✓	✓	✓			✓	✓	✓	
Construction digital strategy Digital strategy for the build management				✓	✓			✓		✓
Information Management (IM) Adoption of IM throughout the construction phase				✓				✓		
Mandatory occurrence reporting Obligatory system for mandatory structural and fire safety occurrence reporting	✓		✓		✓	✓		✓		✓
Golden thread of information Digital golden thread of information containing matters affecting the building performance, including fire and structural safety information						✓		✓		✓
Construction control plan Signing-off required documentation, including declarations of compliance and contributing to the Fire and Emergency File		✓	✓	✓				✓		✓
Information flow Flow of information from the construction phase processes and onward passage		✓	✓	✓				✓		✓

Bibliography

Standards publications

For dated references, only the edition cited applies.
For undated references, the latest edition of the referenced document (including any amendments) applies.

PAS 8671, *Built environment – Framework for competence of individual Principal Designers – Specification*

PAS 8673, *Built environment – Competence requirements for the management of safety in residential buildings – Specification*

Other publications

- [1] CONSTRUCTION INDUSTRY COUNCIL. *Setting the bar: A new competence regime for building a safer future*. London: CIC, 2020.
- [2] GREAT BRITAIN. *Building Safety Act 2022*. London: The Stationery Office.
- [3] GREAT BRITAIN. *Construction (Design and Management) Regulations 2015*. London: The Stationery Office.
- [4] GREAT BRITAIN. *Health and Safety at Work Act 1974*. London: Her Majesty's Stationery Office.
- [5] GREAT BRITAIN. *Fire Safety Act 2021*. London: The Stationery Office.
- [6] ROYAL INSTITUTE OF BRITISH ARCHITECTS. *RIBA Plan of Work 2020*. London: RIBA, 2020.
- [7] GREAT BRITAIN. *Building Regulations 2010*. London: The Stationery Office.
- [8] HEALTH AND SAFETY EXECUTIVE. *HSE Guidance: Safety cases and safety case reports*. London: HSE, 2022.⁶⁾
- [9] GREAT BRITAIN. *Building Act 1984*. London: Her Majesty's Stationery Office.
- [10] CHARTERED INSTITUTE OF BUILDING. *Code of quality management: Guide to best practice, construction quality management*. London: CIOB, 2019.

Further reading

AUTODESK BIM 360. *Quality and completion management in the digital age: How cloud-based technology is revolutionising quality management*. Autodesk Construction Cloud, 2021.

BRITISH STANDARDS INSTITUTION. *Built Environment Competence Standards: An introduction to the new programme designed to raise standards of competence in the built environment workforce*. London: BSI, 2020.

CENTRE FOR DIGITAL BRITAIN. *The value of Information Management in the construction and infrastructure sector*. Cambridge: CDBB, 2021.

CHARTERED ASSOCIATION OF BUILDING ENGINEERS. *Membership Competency Frameworks v3*. Northampton: CABE, 2022.

CHARTERED INSTITUTE OF BUILDING. *The Golden Thread: Understanding the capability and capacity of the UK built environment to deliver and retain digital information*. Berkshire: CIOB, 2020.

CHARTERED INSTITUTE OF BUILDING. *Leadership in the construction industry*. Berkshire: CIOB, 2008.

CONSTRUCTION INDUSTRY TRAINING BOARD. *Construction (Design and Management) Regulations 2015: Industry guidance for principal contractors*. Norfolk: CITB, 2015.

HM GOVERNMENT. *Manual to the Building Regulations: A code of practice for use in England*. London: MHCLG, 2020.

⁶⁾ Available at <https://www.hse.gov.uk/building-safety/safety-cases-reports.htm>.

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