

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021.**

PAS 8672

Built environment – Framework for competence of Individual Principal Contractors and Designated Individuals working under Organizational Principal Contractors – Specification

IMPORTANT INFORMATION

**Please note that this is a draft and not a typeset document.
Persons commenting on this draft are advised not to comment on matters of typography and layout.**

No copying is allowed, in any form, without written permission from BSI except as permitted under the Copyright, Design and Patent Act 1988 or for circulation within a participating organization and/or its membership network for briefing purposes.

Electronic circulation is limited to dissemination by email within such an organization and its members.

Any formatting in this draft does not reflect the final format of PAS 8672.

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW.

Foreword

Publishing information

This PAS was sponsored by the Department for Levelling Up, Housing and Communities (DLUHC). Its development was facilitated by BSI Standards Limited and it was published under licence from The British Standards Institution. It came into effect on XX Month 201X.

Acknowledgement is given to the technical author, and organizations that were involved in the development of this PAS as members of the steering group.

Acknowledgement is also given to the members of a wider review panel who were consulted in the development of this PAS.

The British Standards Institution retains ownership and copyright of this PAS. BSI Standards Limited as the publisher of the PAS reserves the right to withdraw or amend this PAS on receipt of authoritative advice that it is appropriate to do so. This PAS will be reviewed at intervals not exceeding two years.

This PAS is not to be regarded as a British Standard. It will be withdrawn in the event it is superseded by a British Standard.

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 *Safer people, safer homes: Building safety management* [1] in light of events following the tragedy at Grenfell Tower.

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

- BSI Flex 8670 v3.0:2021-04, *Built environment – Core criteria for building safety in competence frameworks – Code of practice*;
- PAS 8671, *Built environment – Framework for competence of Individual Principal Designers and Designated Individuals working under Organizational Principal Designers – Specification¹⁾*; and
- PAS 8673, *Built environment – Framework for competence of Individual Building Safety Managers and Nominated Individual Building Safety Managers – Specification²⁾*.

Information about this document

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 obtaining third-party independent assessment and certification to verify their competence.

¹⁾ In preparation.

²⁾ In preparation.

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021**.

This publication can be withdrawn, revised, partially superseded or superseded. Information regarding the status of this publication can be found in the Standards Catalogue on the BSI website at bsigroup.com/standards, or by contacting the Customer Services team.

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.

This PAS is intended for use by Individual Principal Contractors and Designated Individual Principal Contractors working under an Organizational Principal Contractor. There is an obligation for the “Designated Individual” to be appointed by the Organizational Principal Contractor, who has overall responsibility for the construction phase. Principal Contractors are expected to have the relevant skills, knowledge, experience and appropriate behaviours and, in the case of Organizational Principal Contractors, the organizational capability to carry out their roles and duties of managing the building work they undertake. In doing so, they are expected to take all reasonable steps to carry out the building work in a safe manner to ensure the safety of end-users and visitors throughout the life of the building.

The Principal Contractor will be responsible for planning, managing and monitoring the building work, and coordinating matters relating to the building work to ensure compliance with all relevant requirements.

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;
- qualifications awarding organizations;
- clients undertaking their own building work; and
- other accreditation bodies such as higher education institutions.

Where reference is made to Principal Contractors in this PAS, the meaning will be an Individual Principal Contractor or a Designated Individual Principal Contractor working under an Organizational Principal Contractor as defined in Clause 1 and Clause 4 (or unless otherwise stated). This includes where the Principal Contractor appointed under the Construction (Design and Management) Regulations 2015 [2] (hereafter referred to as the CDM Regulations 2015) is certified as the Principal Contractor under the Draft Building (Appointment of Persons, Industry Competence and Dutyholders) (England) Regulations 2021. However, this PAS does not cover the separate legal duties required by CDM Regulations 2015.

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.

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021**.

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

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient's own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

Compliance with a PAS cannot confer immunity from legal obligations.

Particular attention is drawn to the following specific regulations:

- Health and Safety at Work Act 1974 [3]
- CDM Regulations 2015 [2]
- Draft Building Safety Bill 2021 [4]
- Draft Building (Appointment of Persons, Industry Competence and Dutyholders) (England) Regulations 2021 [5]

0 Introduction

0.1 Background

In the wake of the 24-storey Grenfell Tower disaster in June 2017, the *Building a safer future: Final report* [6] by Dame Judith Hackitt made a number of recommendations. In response, DLUHC published the draft Building Safety Bill 2021 [4], and the government also asked the Health and Safety Executive (HSE) to establish a new Building Safety Regulator (BSR) to oversee the safe design, construction and occupation of higher-risk buildings (HRBs).

In relation to future building standards and performance, the proposed functions of the BSR are to:

- implement a new, more stringent regulatory regime for HRBs;
- oversee the performance systems of all buildings; and
- promote competence among industry professionals and regulators to raise standards in design, construction, and the management of buildings.

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

This PAS is particularly concerned with promoting the competences required of the Principal Contractor for all buildings and not just HRBs. In particular, the development of this PAS builds on the recommendations from WG0 of the Competence Steering Group in the *Setting the Bar report* [7] that the three roles with oversight of building safety at each stage of a building's lifecycle, namely the Principal Designer, Principal Contractor and Building Safety Manager, require enhanced competences in addition to any sector-specific competences.

The WG0 report also recommended that, as these roles require an overarching understanding of all aspects of building safety and the impact of construction works or in-use activities on the design intent throughout the building lifecycle, individuals will need to demonstrate that they have the skills to:

- interrogate design and construction activity;
- challenge the quality of work and bad practices; and
- identify major hazards and minimize the risk to safety during operation.

The WG0 report also recommended that the Principal Contractor role for HRBs is fulfilled by the lead contractor.

NOTE The explanatory notes to the draft Building Safety Bill 2021 [8] make it clear that duties may be fulfilled by either an individual or an organization, and these dutyholders can hold more than one role in a building project. As such, the Principal Contractor will also be a contractor and will therefore also have contractor duties.

0.2 Issues relating to construction management competences

Under the draft Building Safety Bill 2021 [4] and the draft Building (Appointment of Persons, Industry Competence and Dutyholders) (England) Regulations 2021 ("APICD Regulations") [5], the Principal Contractor role is required to plan, manage and monitor the building work during the construction phase and coordinate matters relating to the building work comprised in the project to ensure the building work 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, and experience of managing and constructing buildings. These construction managers will also have similar prior experience and relevant responsibilities, including managing the construction phase and liaising with key dutyholders, such as the Principal Designer, in relation to design changes under the CDM Regulations 2015 [2]. However, there are numerous competence frameworks for construction managers undertaking control for the construction phase of new buildings and the repairs, maintenance and improvements (RMI) to existing buildings. Moreover, there is a current lack of wider competence frameworks for construction managers that address the needs and ensure the safety of the end-users, including building occupiers and visitors throughout the life of the building.

The problem of defining competences for those managing construction projects is not helped by the interchangeability of job titles that exist across the construction industry. Differing competence levels make the role definition even more difficult. In addition, there is no formal requirement to be registered as a construction manager, although there are a number of professional bodies serving the construction industry. Each have their own competence frameworks with different membership assessment criteria, although they all assess occupational, managerial and professional competences. These would need to be re-evaluated and enhanced to reflect the new requirements under the draft Building Safety Bill [4] and the draft APICD Regulations 2021 [5] to ensure they also map their frameworks to the competences contained in this PAS and BSI Flex 8670 v3.0:2021-04. In doing so they would be expanding their construction phase competences to include considerations for the end-users and visitors during the lifetime of a building project. Principal Contractors will also need to understand and recognize when their own, individual competence (or resources) is exceeded and arrange for or engage additional relevant assistance (see 4.7).

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 the required managerial competences for ensuring building safety, compliance with building regulations and the quality of work by others under their responsibility. Principal Contractors are also expected to hold competences that enable 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 to ensuring 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 more stringent competences for HRBs contained in this PAS are not treated as mere bolt-on-bits but integrated into the already adopted range of competences for construction managers. It is anticipated that Principal Contractors would already have the competences of a construction or project manager but would additionally possess the competences laid down in this PAS.

Existing buildings significantly outnumber new builds and residual risks are often more commonplace. These buildings are often occupied during RMI work and therefore managing building safety as a result of these works is just as important as during the construction of new buildings.

NOTE The draft Higher-Risk Buildings (Descriptions and Supplementary Provisions) Regulations 2021 [9] specify descriptions of HRBs and those that are excluded from the definition.

0.3 Use of this PAS

This PAS is one of a suite that sets out core and specific competences that assure building safety from design and construction through to occupation. This suite aims to promote protection for people in and about buildings throughout the lifetime of the buildings. The suite

applies to all types and scale of new and existing buildings, including their immediate surroundings, but does not focus on matters such as crime and policing.

In alignment with BSI Flex 8670 v3.0:2021-04, this PAS is intended for use as a competence framework against which Principal Contractors can be assessed. In addition, Annex A of this PAS 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.

The duties of the Principal Contractor under the CDM Regulations 2015 [2] are outside the scope of this PAS, although often the same individual will undertake both roles. Furthermore, this PAS is not intended to be a sector-specific framework covering competences for teams or organizations. Rather, it covers competences for Individual Principal Contractors or Designated Individual Principal Contractors working under an Organizational Principal Contractor; reference in this PAS to “Principal Contractors” encompasses both these roles unless otherwise stated.

1 Scope

This PAS specifies the competence requirements relevant to the role, function and tasks of an Individual Principal Contractor or a Designated Individual Principal Contractor working under an Organizational Principal Contractor (hereafter referred to collectively as “Principal Contractors”) based on the core requirements and core competences set out in BSI Flex 8670 v3.0:2021-04.

This PAS specifies the competence and commitment of Principal Contractors working on all buildings to:

- plan, manage and monitor building work to ensure compliance with building regulations;
- identify and manage building safety risks and the consequences of human behaviour;
- maintain competence and commitment of managing record keeping and change control;
- understand and promote fire spread, structural failure and other prescribed hazards, safety principles and practices in buildings;
- know competence limitations and not act as a Principal Contractor for any building work beyond their competence requirements as set out in relevant legislation;
- take all reasonable steps to be satisfied that all those undertaking building work under their control fulfil the competence requirements;
- understand and coordinate the production/assembly of building structures, systems and services, including off-site elements;
- promote building work practices necessary to maintain safe buildings for occupiers and visitors, including building work carried out during occupation;
- identify and manage hazards and risks likely to lead to the collapse or partial collapse of buildings;
- understand the role of the individual Principal Contractor under the CDM Regulations 2015 [2];
- promote and develop leadership and communication skills; and
- accept and exercise personal commitment to ethical behaviour and professional standards.

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 higher-risk buildings (HRBs).

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021**.

This PAS is intended for use by professional institutions, regulators, licensing bodies, and awarding organizations to assess the competence of the Principal Contractor. It does not intend to replace existing professional vocational education and technical training (VET). However, it is expected that these VET organizations will demonstrate conformity with the core requirements and competences set out in this PAS.

This PAS is also intended for use by clients, building owners and limited lease holders undertaking repairs, maintenance and improvements (RMI) to buildings, in identifying individuals competent to undertake the Principal Contractor role on their behalf.

This PAS does not cover:

- the requirements that are specific to the duty role holder of Principal Contractor under the CDM Regulations 2015 [2] (although see Clause 4 commentary);
- team or organizational competence and resource capacity of organizations acting as Principal Contractors under the CDM Regulations 2015 [2];
- the organizational and team competence or organizational management of the Principal Contractor; and
- specific education and training requirements, although it does provide advice and guidance on a range of options.

2 Normative references

There are no normative references in this document.

3 Terms, definitions and abbreviated terms

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

3.1 Terms and definitions

3.1.1 Accountable Person (for higher-risk buildings)

(a) person who holds a legal estate in possession in any part of the common parts (subject to subsection (2)); or

(b) person who does not hold a legal estate in any part of the building but who is under a relevant repairing obligation in relation to any part of the common parts

{SOURCE: Draft Building Safety Bill 2021 [4]}

3.1.2 accreditation

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

3.1.3 building(s)

permanent or temporary building including any other structure or erection of whatever kind or nature (whether permanent or temporary). A reference to a building includes a reference to part of a building.

NOTE It also includes in or about buildings as referred to in the draft Building Safety Bill 2021 [4].

{SOURCE: Building Act 1984 [10] and draft Building Safety Bill 2021 [4] modified}

3.1.4 building information

information in the Client's possession or which is reasonably obtainable by or on behalf of the Client, which is relevant to the building work or the design work

{SOURCE: Draft APICD Regulations 2021 [5]}

3.1.5 Building Information Modelling

creation and management of information during a project's life cycle, supported by technology and a collaborative process

NOTE From a competence perspective it represents a "new" series of demands on the competence, not only of project managers, but of supervisors and potentially front-line staff.

{SOURCE: RICS (2020) *The future of BIM: Digital transformation in the UK construction and infrastructure sector* [11]}

3.1.6 Building Safety Manager

individual or entity appointed to support Accountable Persons in the management of building safety risks

3.1.7 building safety risk

risk to the safety of persons in or about buildings arising from the spread of fire, structural failure and any other risk that may be prescribed by regulations in the future

3.1.8 building work

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

{SOURCE: The Building Regulations 2010 [12]}

3.1.9 CDM principal contractor

contractor appointed as principal contractor under the CDM Regulations 2015

{SOURCE: Draft APICD Regulations 2021 [5]}

3.1.10 certification

provision of written assurance by an independent organization that a person has been assessed and meets the requirements for a defined role and level of competence

3.1.11 Client

any person for whom a project is carried out.

{SOURCE: Draft APICD Regulations 2021 [5]}

3.1.12 competence/competences

combination of skills, knowledge, experience and appropriate behaviour that enable an individual to make decisions on an informed basis that result in safe outcomes for a defined function

3.1.13 competency (competencies)

task-level description of skill, knowledge, experience, and appropriate behaviour, required to achieve a defined outcome

3.1.14 complexity

measure of interrelatedness and interdependency of systems, components and parts comprising a physical asset.

3.1.15 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.

3.1.16 construction control plan

information describing how building safety and Building Regulations compliance are maintained during the building phase and how change is controlled and recorded

{SOURCE: A reformed building safety regulatory system: Government response to the 'Building a Safer Future' consultation} [13]}

3.1.17 construction management

development, conservation and improvement of safe buildings for its occupants and operators via close coordination with clients, building owners, lease holders, and other stakeholders

3.1.18 construction phase

period of time beginning when any building work, including RMI starts, and ending when work on that project is completed

{SOURCE: Draft APICD Regulations 2021 [5]}

3.1.19 contractor

person who, in the course of a business, carries out, manages or controls any building work

NOTE For example, building, altering, maintaining or demolishing a building or structure. Anyone who manages this work or directly employs or engages building workers is a contractor.

{SOURCE: Draft APICD Regulations 2021 [5]}

3.1.20 Designated Individual Principal Contractor

individual appointed by the Organizational Principal Contractor with control over the construction phase, to manage the building work on its behalf

NOTE See also 3.1.28.

3.1.21 functional areas

group comprising a number of Principal Contractor functions

3.1.22 gateways

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

- Planning Gateway one – at the planning application stage (which is covered under planning legislation);
- Gateway two – before building work starts; and
- Gateway three – when building work is completed

NOTE Gateways two and three are covered under the draft Building Safety Bill 2021 [4] and are stop/go decision points that are passed before a development can proceed to the next stage.

3.1.23 general competence

general areas of skills, knowledge, experience, and appropriate behaviours of all those involved in building work, including principal contractors

3.1.24 golden thread of information

information that allows the understanding of a building and the steps needed to keep both the building and people safe, now and in the future

{SOURCE: Building Regulations Advisory Committee: Golden thread report [14]}

3.1.25 higher-risk buildings (HRBs)

technical term for buildings in scope of the new more stringent regulatory regime

NOTE As defined in the draft Building Safety Bill 2021 [4].

{SOURCE: Building Safety Bill: Explanatory notes [8]}

3.1.26 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

3.1.27 Individual Principal Contractor

Individual appointed by the Client to be in control of the building work during the construction phase

NOTE Appointed under the draft APICD Regulations 2021 [5].

3.1.28 Organizational Principal Contractor (OPC)

contractor organization appointed by the Client to be in control of the building work during the construction phase and to appoint a designated individual to manage the OPC's work

NOTE 1 The contractor organization is appointed by the Client under the draft APICD Regulations 2021 [5].

NOTE 2 See also 3.1.20.

3.1.29 professional body

organization with individual members practising a profession or occupation in which the organization maintains an oversight of the knowledge, skills, conduct, and practice of that profession or occupation

3.1.30 public safety

duty placed on employers and self-employed to ensure, as far as is reasonably practicable, that their work does not affect the health and safety of others

{SOURCE: Health and Safety at Work etc Act 1974 [3]}

3.1.31 relevant requirements

to the extent relevant to the building work or design work in question

NOTE Attention is drawn to the requirements of regulations 4, 6, 7, 8, 22, 23, 25B, 26, 26A, 28, 36, 41(2)(a), 42(2)(a) and 43(2)(a) of, and Schedule 1 to, the Building Regulations 2010 [12].

3.1.32 site supervisor

person who oversees part or all on-site building work is completed in compliance with relevant requirements, to specification and to the required standard

NOTE The duty, however, remains with the Principal Contractor.

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021.**

{SOURCE: Setting the bar: A new competence regime for building a safer future} [7]

3.2 Abbreviated terms

APCL	accreditation of prior certificated learning
APEL	accreditation of prior experiential learning
APICD Regulations	Draft Building (Appointment of Persons, Industry Competence and Dutyholders) (England) Regulations, 2021
BIM	Building Information Model/Modelling
BSR	Building Safety Regulator
CDM Regulations	Construction (Design and Management) Regulations 2015
CPD	continuing professional development
DLUHC	Department for Levelling Up, Housing and Communities (DLUHC)
HRB	higher-risk building
NVQ	National Vocational Qualification
NOS	National Occupational Standards
OPC	Organizational Principal Contractor
RMI	repairs, maintenance and improvements
RQF	Regulated Qualifications Framework
SKEB	skills, knowledge, experience and behaviour
SMART	specific, measurable, achievable, realistic and time-bound
VET	vocational education and training

4 Principal Contractor general areas of competence and roles

COMMENTARY ON CLAUSE 4

The role defined in this PAS is that of an Individual Principal Contractor or a Designated Individual Principal Contractor working under an Organizational Principal Contractor. Hereafter, Individual Principal Contractors and Designated Individual Principal Contractors are referred to collectively as "Principal Contractor(s)" unless otherwise stated.

The duties of the Principal Contractor under the CDM Regulations 2015 [2] are outside the scope of this PAS, although often the same individual or organization will undertake both roles. Specifically, under Regulation 6 of the draft APICD Regulations 2021 [5], provision is made for the Client to certify in writing that the Principal Contractor appointed under the CDM Regulations 2015 [2] is to be treated as appointed under the draft APICD Regulations 2021 [5]. Regardless, holders of both these roles (the Principal Contractor or the Principal Contractor under the CDM Regulations) will have regard to their respective roles and responsibilities. Relationships with other roles are also covered in this clause.

The core competences (see Annex B) in this PAS 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 v3.0:2021-04.

The Principal Contractor will need to have the skills, knowledge, experience and behaviours to plan, manage and monitor all building work as well as cooperate, communicate and coordinate their work with other dutyholders. The Principal Contractor ensures the building work complies with relevant requirements so that it does not negatively impact on the health, safety and welfare of occupants and visitors in or about the building for its lifetime having been correctly maintained and operated.

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021**.

As a dutyholder under the draft Building Safety Bill [4], the Principal Contractor complies with the regulatory regime for all buildings and the more stringent regime for higher-risk buildings (HRBs).

The Principal Contractor will be required to embed the principles of the golden thread of information for all HRBs, and will be required for the construction phase to become the custodian of and to ensure the accuracy of the information being added to the golden thread of information.

The Principal Contractor will be either site-based or have sufficient presence on site to fully plan, monitor and manage the building work throughout the entire construction phase, including pre-construction, 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 [7].

4.1 Principal Contractor general areas of competence

COMMENTARY ON 4.1

The Principal Contractor will be expected to hold a core level of competence regardless of the building project type and complexity, although the nature and level of specific competencies will differ according to the demands of each individual building project. Those responsible for HRBs will have additional duties and competences. The Principal Contractor will need to understand and embed ethical and behavioural practices and possess appropriate behavioural competences as defined in this PAS and BSI Flex 8670 v3.0:2021-04.

Modern building works are significantly varied and sometimes unique and/or innovative. Any Principal Contractor is unlikely to hold the competence to assess every aspect of a complex building project and should have the competence to understand when to engage with experts holding such specialist skills, knowledge, experience and behaviours to assist them in demonstrating their compliance.

The Principal Contractor will need to ensure that those they employ or manage on the building project have the necessary competence to deliver their tasks effectively and assure they themselves are suitably competent for the work they have been engaged to undertake.

The following general areas of competence focus on the legal and moral duties to uphold safe building practices for end-users and visitors throughout the lifecycle of the building.

The Principal Contractor shall have the general competence to:

- a) plan, manage and monitor the building work to ensure compliance with building regulations;
- b) cooperate, communicate and coordinate their work with other dutyholders;
- c) use reliable and nationally recognized sources of industry information and standards in decision making;
- d) liaise with all stakeholders who impact on the design and pre-construction, construction and handover phases on matters affecting the lifetime safety and related quality assurance of the building project;
- e) professionally lead and develop the competences of employees involved in the building work and provide encouragement and guidance to the supply chain;
- f) recognize the limit of competence of self and those under their control;
- g) 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 and visitors;
- h) manage project budgets without compromising, during the anticipated lifetime of the building, the safety of people in and around the building;
- i) manage the pre-construction, construction and handover stages in accordance with the design and other information approved by the Principal Designer and the design team;
- j) procure safe and appropriate quality assured materials, products and building systems that remain safe for the anticipated lifetime of the building;

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021**.

- k) oversee the onsite building work that assures post-completion fire spread, structural failure and other hazards specified in regulations are avoided for the anticipated lifetime of the building;
- l) manage and record change including keeping accurate building work records, inspections and tests to prove compliance; and
- m) manage the flow of information derived from the design and construction processes and maintain its passage to the client or other dutyholders, the Accountable Person, or the Building Safety Manager.

The Principal Contractor shall integrate their knowledge, skills, experience and appropriate behaviours in accordance with Annex B, that supports and develops a strong safety culture.

NOTE 1 Annex B expands on the above general areas of competence. Specifically, these general areas of competence 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 v3.0:2021-04.

NOTE 2 Professional bodies require members to abide by a code of conduct and professional behaviours that often include a requirement to practise ethically as well as maintaining and acting within limits of competence.

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 at an advanced (more stringent) level for HRBs. The Principal Contractor shall maintain competence through a commitment to CPD.

NOTE 1 Competences refer to skills, knowledge and experience with the addition of appropriate behaviours (SKEB). Advanced competences refer to the same SKEB but also include the more stringent requirements for HRBs.

NOTE 2 In England, DLUHC intends to use the powers in Clause 33 of the draft Building Safety Bill 2021 [4] to insert paragraphs 5A and 5B to Schedule 1 to the Building Act 1984 [10] to provide that the Client can treat those persons appointed as a Principal Contractor under the CDM Regulations 2015 [2] as appointed for the purposes of the building regulations. In order to do this, it is proposed that the Client certifies that the Principal Contractor under the CDM Regulations 2015 [2] has the skills, knowledge, experience and appropriate behaviours to undertake the equivalent role under the building regulations.

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 (SKEB). These will 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

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021.**

a capability but weak on actually completing satisfactory work. The role of the Principal Contractor is about behaviours as much as skills, knowledge and experience.

Instilling the right behaviours in the building sector's workforce has been a longstanding struggle, in part, because of a fixation with cost and time, at the expense of quality and safety. The approach taken in BSI Flex 8670 v3.0:2021-04, 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 adhere to the behaviours prescribed in Clause 6.

NOTE 1 Ensuring that individuals possess and apply appropriate behaviours is critical to achieving and maintaining building safety. The principles that govern appropriate behaviour are shaped by many factors and can be influenced for the better by adhering to the required behaviours as framed in this PAS. The core competence criteria for behaviours are described in BSI Flex 8670 v3.0:2021-04, Table 1, with which this PAS aligns.

NOTE 2 The specific competencies (see Clause 6) embed the appropriate behaviours.

4.4 Individual Principal Contractor

COMMENTARY ON 4.4

The role of the Individual Principal Contractor includes managing relationships and interfaces between the Client, Principal Designer, designer, contractor and other key stakeholders (including the Accountable Person and the Building Safety Manager within an occupied HRB), during the construction phase of a building project. This requires careful attention to roles, functions and duties with clear focus on the building work and tasks. Users of this PAS may wish to refer to the RIBA Plan of work 2020 [15], particularly with regard to matters relating to fire safety.

The Individual Principal Contractor shall define and manage roles, responsibilities and accountabilities for activities and tasks relating to the construction phase of a building project, including appropriate pre-construction, design and handover phases as required.

4.5 Designated Individual Principal Contractor working under an Organizational Principal Contractor

COMMENTARY ON 4.5

The role of the Designated Individual Principal Contractor working under the control of an Organizational Principal Contractor (OPC) is an individual person appointed by the OPC to manage its functions of the Principal Contractor for the building work. The same competences are required for non-high-risk buildings as well as the more stringent competences for HRBs. 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 will also have a duty to ensure that the Designated Individual Principal Contractor has the relevant SKEB.

The Designated Individual Principal Contractor shall have the same skills, knowledge, experience and appropriate behaviours as for an Individual Principal Contractor (see 4.4) as well as recognizing the internal interfaces within the employing organization and other relevant stakeholders.

NOTE To fulfil the duties of a Principal Contractor under the draft APICD Regulations 2021 [5], the employing organization will control and task an individual to manage its functions as a Principal Contractor.

4.6 Additional Principal Contractor competences for higher-risk buildings

COMMENTARY ON 4.6

Principal Contractors have additional specific legal duties for HRBs and therefore require more stringent competences. 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.

For HRBs, amendments to the Building Act 1984 [10] include replacing the local authority with the new Building Safety Regulator (BSR) for the purpose of enforcing the requirements of building regulations. Such buildings will also include those which are to be higher-risk and those which become higher-risk as a result of building work being undertaken. Local authorities (or a registered building control approver) are to remain as the building control authority for other buildings.

Amendments to the Building Act 1984 [10] 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 a HRB's design, construction, and handover.

Planning Gateway one has been introduced via amendments to planning legislation and does not form part of the draft Building Safety Bill 2021 [4] or focused on building control and wider building safety. It requires that fire safety as it relates to land use matters is incorporated and considered at planning application stage for developments which contain an HRB.

To ensure close monitoring of a building's lifecycle, the golden thread of information will hold all the information needed to demonstrate compliance with specified building regulations (including fire and structural safety building information). This information will be held digitally to specific standards and will be used to ensure that those responsible for the building have the required information to manage building safety throughout the lifetime of the building. Secondary legislation and guidance will be issued to support the golden thread concept and will specify the information and documentation that is to be obtained and kept, as well as the standards to which these documents and information are to be stored and maintained.

Provisions in the draft Building Safety Bill 2021 [4] will allow for a Mandatory Occurrence Reporting System to be established. This involves obligatory reporting to the BSR of structural and fire safety occurrences, which could cause a significant risk to life safety.

The draft Building Safety Bill 2021 [4] creates powers to prescribe in building regulations competence requirements for the Principal Contractor and others as well as imposing duties on the persons appointing them to ensure they meet the competence requirements. This is to ensure everyone carrying out building work is competent to carry out that work in line with building regulations.

In the Construction Control Plan, dutyholders will need to describe the strategies they will have in place for managing building work during construction to ensure compliance with applicable building regulations is maintained. In particular, they will 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 general areas of competence required to comply with the more stringent duties for HRBs. Specifically, the Principal Contractor shall have the skills, knowledge, experience and behaviour to:

- a) contribute to the pre-construction development of the Construction Control Plan so that building safety risks arising from construction activities, including fire spread, structural failure, other regulatory prescribed hazards and public safety, are fully considered and recorded as part of the obligatory Gateway regime;
- b) liaise with other dutyholders, including the Client and Principal Designer, to ensure they can discharge their regulatory obligations, including the signing-off of key information demonstrating how the "as-built" building complies with the requirements of building regulations;
- c) coordinate matters relating to the building work so that the building work is in compliance with all relevant requirements, and take all reasonable steps to ensure that all those involved comply with their duties, building regulations and approved standards for HRBs;

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021**.

- d) establish that all those working on the construction of HRBs, including contractors, and building system providers, are aware of and are executing their duties as well as being competent to carry out the construction activities for the lifetime safety of the building and its occupants;
- e) maintain the Construction Control Plan (which will form 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 stringent duties for managing the construction phase of higher-risk buildings (see Clause 5).

NOTE In Clause 5, the above additional general areas of competence for higher-risk buildings 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 v3.0:2021-04.

4.7 Limits of competence

COMMENTARY ON 4.7

The competence of the Principal Contractor is critical in ensuring they recognize building safety risks and can apply the right measures to manage those risks during the construction phase of a building project for the lifetime benefit of the occupants and visitors. The Principal Contractor should have the ability to undertake responsibilities and perform activities to a recognized standard combining skills, knowledge, experience and appropriate behaviour to a range of building industry sectors such as healthcare, high-rise residential, and care homes.

It is also critical that any individual involved in the building work does not act beyond their competence limits, or ask others to do so, thus avoiding exposing themselves and potentially other people to a wide range of risks. Principal Contractors need to understand that this not only applies to people affected during the construction phase of a building project but also to occupants and visitors in and around 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 in themselves competent to manage 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.

It is important that competence qualifications and specifications establish the right conditions so that individuals are able to take reasonable steps in managing limits of competence.

The Principal Contractor shall recognize their own competence limitations as well as those undertaking building work under their legal duty to plan, manage and monitor the construction phase of a building project.

NOTE Professional bodies require members to abide by a code of conduct and professional behaviours that often include a requirement to practise ethically as well as maintaining and acting within limits of competence. However, not all specialisms will have established professional bodies governing competences and there will need to be other routes for assessing competency.

5 Specific competencies

COMMENTARY ON CLAUSE 5

This clause describes the specific competencies that amplify the functions of the Principal Contractor under each of the areas listed in Tables 1 to 9 in Annex B. There is a high degree of interdependence between the specific competencies that goes beyond the mapping of functions to the core criteria described in BSI Flex 8670 v3.0:2021-04. A holistic treatment of the relevant subject matter is therefore needed when designing assessment.

All of the specific competencies in Clause 5 relate to the life safety of the end-users, including occupants and visitors as well as public safety in and about buildings. Where appropriate, some sub-clauses below are further divided to distinguish between requirements applying to all buildings, including HRBs, and those additional more stringent requirements for HRBs only.

5.1 Legal and contractual requirements (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, 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.

5.2 Managing building safety and risks

5.2.1 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 to assure the life-safety of building occupants and visitors;
- b) recognize the key differences between hazard identification and risk assessment and outline an appropriate basis for managing risks;
- c) create and manage the construction phase risk management plan and risk register, including assessing the likelihood of a risk materializing and the impact if it does;
- d) 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 an individual's control; and
- e) 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 the end-users.

5.2.2 Higher risk buildings

The Principal Contractor shall be able to:

- a) develop a formal approach to managing building work for HRBs and demonstrate how safety risks can be reduced through various means; and
- b) contribute to the development of the Construction Control Plan during the pre-construction phase ensuring that building safety risks arising from construction activities including fire, structural, other regulatory prescribed hazards and public safety are fully considered and recorded as part of the obligatory Gateway regime.

5.3 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 effectively assesses 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 safe and quality assured materials, products and building systems;
- e) assess the safety implications of cost and value decisions 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 and visitors.

5.4 Managing construction processes/production (all buildings)

The Principal Contractor shall be able to:

- a) demonstrate self, 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 competence levels of self and those undertaking on and off-site construction activities and services including maintaining accurate and updated records;
- c) manage the quality of building work by adopting best practice which assures a safe and compliant building for its lifetime;
- d) continuously monitor the procurement of building systems and manage the building work of contractors, suppliers and service providers;
- e) oversee the inspection and testing of all materials, components and building systems upon which the safety of persons in and about buildings will depend; and
- f) manage project time and budgets without compromising the safety and compliance of the building throughout its lifetime.

5.5 Leadership, decision making and change management

5.5.1 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 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 and maintain plans to manage and control change, and to assess their impact on the build process, including building occupiers and visitors;
- 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.

5.5.2 Higher risk buildings

The Principal Contractor shall be able to maintain the Construction Control Plan during the construction phase, providing full and accurate records of any changes (including justifications) to the building and building systems.

5.6 Liaising with the Client and other key stakeholders

5.6.1 All buildings

The Principal Contractor shall be able to:

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

5.6.2 Higher risk buildings

The Principal Contractor shall be able to:

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

5.7 Developing people and teams

5.7.1 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 and experience 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.

5.7.2 Higher risk buildings

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

5.8 Managing the quality of building work (all buildings)

The Principal Contractor shall be able to:

- a) embed a proven quality management system that directs, controls and coordinates quality throughout the build process and creates a lifelong safe building for occupants and visitors;
- 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) check the quality profile and references of all suppliers of materials, products, building systems and services prior to engagement for their safe use in completed buildings; and
- 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.
- 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.

5.9 Managing information

5.9.1 All buildings

The Principal Contractor shall be able to:

- a) recognize the importance of documented information, understand its extent 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 BIM throughout the construction phase and thus maintaining accurate records of the as-built building.

5.9.2 Higher risk buildings

The Principal Contractor shall be able to:

- a) establish an 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) maintain the golden thread of information containing matters affecting the building compliance, including fire, structural and other regulatory prescribed safety information that supports those having responsibilities for the occupation phase and lifecycle of the building;
- c) complete 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, Accountable Person or Building Safety Manager as appropriate.

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 existing skills, knowledge, and experience, help to engender a sense of individual responsibility and accountability as part of an effective and strong safety culture.

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021**.

The CDM Regulations 2015 [2] already drive safety culture and behavioural change for those involved in the design and construction phases of building projects, but this PAS and BSI Flex 8670 v3.0:2021-04 extend this, along with building regulations compliance, to consideration of the end-users and visitors throughout the lifecycle of the building.

It is recognized that without 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 and ensure the life safety of building occupants and visitors is safeguarded.

The following five core competence criteria reflect and contextualize the requirements of BSI Flex 8670 v3.0:2021-04 and it is recommended to refer to the scopes in the Flex, although they are not intended to be exhaustive.

6.1 Ethical principles, standards and conduct

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

6.2 Leadership, teamwork and communication

The Principal Contractor shall 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 manage self and individual competences 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 take responsibility and be accountable for their own actions and take reasonable steps 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 provide a duty of care to others involved or affected by the building work in and about buildings, including building occupants and members of the public. The Principal Contractor shall also maintain an effective communications system that encourages reporting of risks or concerns throughout the construction and handover phases.

7 Competence levels and 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. However, regardless of the building project, the same skills, knowledge, experience and appropriate behaviours are required to assure the construction phase of the project delivers a safe and compliant building for the lifetime benefit of end-users and visitors. Notwithstanding, it is recognized that for larger more complex buildings, the managerial function of the Principal Contractor will likely be more significant, although responsibility and accountability will 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 in-scope building project.

The draft Building Safety Bill 2021 [4] provides powers to impose competence requirements on the Principal Contractor and other persons. The Bill also provides powers to impose duties on persons making appointments in relation to building regulations to ensure that those they appoint meet the competence requirements. This is to ensure everyone doing building work is competent to carry out that work in line with building regulations.

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

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021.**

The Principal Contractor shall possess and maintain the competences to undertake the duties prescribed by legislation and appropriately 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.

8 Qualifications, prior learning and experience

COMMENTARY ON CLAUSE 8

Most building installations have life safety implications, particularly for higher-risk and more complex buildings, that require a high level of competence. Some tasks will require higher levels of competence than others, so it is vital that qualifications and competent assessment frameworks reflect this variability in capabilities. This is equally true when undertaking any building work once the building is occupied, whether that is modification, maintenance or replacement. Competence will have to evolve in response to technological innovation and as regulatory requirements and standards change.

Prior learning, whether formal or informal, can be used as a reference point for the likely skills, knowledge and experience required to competently undertake the Principal Contractor role, including qualification, certification and training.

8.1 Qualifications and experience of the Principal Contractor

Principal Contractors shall be able to demonstrate that they have appropriate qualifications, including skills, knowledge, experience and appropriate behaviours essential for discharging their legal and professional duties for any given building project.

8.2 Workforce qualifications

The Principal Contractor shall confirm the suitability of individual workforce qualifications including skills, knowledge and experience through a robust and rigorous checking process including determining the appropriateness and currency of prior learning.

9 Competence assessment, development and maintenance

COMMENTARY ON CLAUSE 9

Competence is used as part of a systemic approach to describing job roles and specifications, selecting and interviewing candidates for employment or promotion as well as managing performance. It is also commonly used to assess eligibility for qualification, membership, registration, certification or licensing in building related disciplines or roles.

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.

Skills, knowledge and experience can become outdated due to legal or technological changes, and these require positive action to maintain for the Principal Contractor and those constructing or maintaining buildings. Maintaining competence through continuing professional development (CPD) includes a range of informal and formal activities such as toolbox talks, education and training, refresher courses, mentoring and carrying out tasks under supervision.

Improving competence through the development of new skills is equally important in relation to new or changing building knowledge, technology or practices, particularly where this can impact on building safety or public health. The assessment of competence cannot predict future circumstances and complexities or give complete assurance that Principal Contractors will always respond in the same way.

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

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS. THIS DRAFT IS NOT CURRENT BEYOND 10 NOVEMBER 2021.

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 will depend 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 consideration should also be given to evidence CPD, including experiential learning.

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.

Persons seeking appointment as a Principal Contractor shall recognize and accept that assessment of their competence for the role is necessary and that independent bodies exist for this purpose.

NOTE 1 There is a requirement for competences of the Principal Contractor and other individuals involved in the construction phase of the building project to be validated and re-validated in accordance with BSI Flex 8670 v3.0:2021-04.

NOTE 2 In its response to the pre-legislative scrutiny by the Housing, Communities and Local Government Select Committee (July 2021) [16], the Government confirmed that those wishing to be appointed as a Principal Contractor for HRBs will be expected to be assessed as meeting the relevant standards by organizations that are third-party accredited by a recognized body. Notwithstanding, the provisions of this PAS and BSI Flex 8670 v3.0:2021-04 are not dependent upon any kind of third-party assessment, verification, certification or audit.

NOTE 3 There is an obligation under the draft APICD Regulations [5] for a Principal Contractor to notify the Client when ceasing to satisfy the requirement for skills, knowledge, experience and behaviours.

Annex A (informative) Education, training and qualifications

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 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 v3.0:2021-04, this PAS is not intended to replace existing professional and technical training or competence frameworks that already exist for building professionals. However, these should be reviewed and updated to reflect the full range of competences required for the Principal Contractor role.

In order to address the requirements of BSI Flex 8670 v3.0:2021-04 and this PAS, existing competence frameworks as well as current education and training programmes will need to address the competences for all buildings and the more stringent competences for HRBs where appropriate.

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

The management of an individual's continuing professional development (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 responsible person.

Further and higher education, private training providers and some construction organizations deliver a range of learning and development programmes for individuals entering, career

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021**.

changing or updating their skills and knowledge for job roles in the construction industry. Knowledge is typically delivered through a variety of methods including toolbox and CPD 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 individual professional development (including VET) 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. This is the designated United Kingdom national agency for the recognition and comparison of international qualifications, competences and skills.

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 (APCL) or accreditation of prior experiential learning (APEL), where learning accomplished outside education or formal training systems is assessed and recognized for academic purposes.

Annex B

Functions and core competences of a Principal Contractor

COMMENTARY ON ANNEX B

This PAS aligns with the principle of embedding the core competences contained within BSI Flex 8670 v3.0:2021-04 in that knowledge, skills, experience and appropriate behaviours are integrated in order to support and develop a strong safety culture. The Principal Contractor role, function and responsibilities are concerned with delivering safe buildings, including their surroundings for occupiers and visitors throughout the building lifecycle. Building work includes new build and RMI work to existing buildings.

B.1 General

A holistic 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 consider time, finance and other resources necessary for the proper and safe execution of the building work.

NOTE 3 The functions of a Principal Contractor are covered in Tables B.1 to B.9 below along with their main underpinning activities/tasks. These are mapped to the five core competence criteria listed below and detailed in BSI Flex 8670 v3.0:2021-04. The completed mapping translates to specific competencies in Clause 5 above.

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 to ensure compliance (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 and design teams (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 and communications (see **B.10**).

Within these functional areas, the Principal Contractor shall possess the following core competences:

- 1) behaviour;
- 2) fire spread, structural failure and others regulatory prescribed and public safety;
- 3) managing building safety;
- 4) knowledge management and communication; and
- 5) buildings as systems, building systems and building products.

NOTE 4 The above core competences apply to all three sector-specific frameworks in the PAS series and originate from BSI Flex 8670 v3.0:2021-04, Tables 1 to 5 (where they are defined).

NOTE 5 Managing building safety (in 3 above) applies general and specific core 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

COMMENTARY ON B.2

The Principal Contractor will need to be sufficiently competent 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.

It is important for the Client to consider the Principal Contractor role and functions with regard to:

- a) *public health and public safety risks, including interfaces between stakeholders;*

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021.**

- b) *knowledge and ability to comply with or exceed requirements of relevant building regulations, standards and supporting statutory guidance; and*
- c) *knowledge and ability to comply with other legislation and follow relevant guidance appropriately.*

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

Table 1 – Mapping of legal and contractual functions to core competences										
Functions	Non-HRBs					HRBs				
	B	F	M	K	S	B	F	M	K	S
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	✓	✓	✓			✓	✓	✓	✓	
Key to core competences: B = Behavioural competence F = Fire safety, structural safety and public safety M = Managing building safety K = Knowledge management and communication S = Buildings as systems, building systems and construction products										

B.3 Managing building work to ensure compliance

COMMENTARY ON B.3

This PAS and BSI Flex 8670 v3.0:2021-04 describe the competence requirements for Principal Contractors in relation to ensuring that the building and its surroundings do not endanger the lives of occupiers and visitors during the lifecycle of the building. This is in addition to the Principal Contractor legal duties under the CDM Regulations 2015 [2] to ensure the safety and health of those undertaking the construction works.

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

Functions	Non-HRBs					HRBs				
	B	F	M	K	S	B	F	M	K	S
Plan for building work safety risks Building work safety risks that might impact on end-users and plan to assure the life-safety of building occupants and visitors	✓	✓	✓		✓	✓	✓	✓	✓	✓
Issue management Issues and risks, including procedures for dealing with issues	✓	✓	✓			✓	✓	✓		
Hazard and risk identification Hazard identification, risk assessment and managing risks	✓	✓	✓			✓	✓	✓		
Risk assessment Construction phase risk management plan and risk register	✓	✓	✓		✓	✓	✓	✓	✓	✓
Risk response Risk responses, including managing residual risks	✓	✓	✓		✓	✓	✓	✓	✓	✓
Construction Control Plan Construction Control Plan for the pre-construction phase and record as part of the obligatory Gateway regime		✓	✓		✓		✓	✓	✓	✓
Manage safety risks Safety responsibility during the construction phase	✓	✓	✓		✓	✓	✓	✓	✓	✓
Key to core competences: B = Behavioural competence F = Fire safety, structural safety and public safety M = Managing building safety K = Knowledge management and communication S = Buildings as systems, building systems and construction products										

B.4 Planning and organizing production

COMMENTARY ON B.4

Overseeing the safe planning of the construction phase is an important function of the Principal Contractor and it is a requirement that such planning will be extended to consider anyone occupying or visiting a building or its surroundings throughout its lifetime.

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021.**

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

Table B.3 – Mapping of planning and organising functions to core competences										
Functions	Non-HRBs					HRBs				
	B	F	M	K	S	B	F	M	K	S
Procurement process Procurement process, including assessing the competence of contractors and suppliers	✓		✓			✓		✓		
Resources planning Planning and organizing safe building projects, including assessing their resource requirements		✓	✓				✓	✓		
Resource procurement Procuring safe and quality assuring 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	✓		✓			✓	✓	✓		
Key to core competences: B = Behavioural competence F = Fire safety, structural safety and public safety M = Managing building safety K = Knowledge management and communication S = Buildings as systems, building systems and construction products										

NOTE Under the draft APICD Regulations [5], any person carrying out any building work takes all reasonable steps to ensure the work carried out by them (and by any workers under their control) is planned, managed and monitored so as to be in compliance with all relevant requirements.

B.5 Managing construction processes/production

COMMENTARY ON B.5

The draft Building Safety Bill 2021 [4] introduces a general duty to govern the way building work is carried out and Principal Contractors are required to engage with the other dutyholders as well as comply with the safety and relevant requirements.

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 and 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 higher-risk buildings it is vital that Principal Contractors have an awareness of potential interactions between components of a building and how any work undertaken impacts the safety of its occupants 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 core competences in relation to managing construction processes/production functions listed in Table B.4.

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021.**

Functions	Non-HRBs					HRBs				
	B	F	M	K	S	B	F	M	K	S
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	✓			✓	✓	✓			✓	✓
Key to core competences: B = Behavioural competence F = Fire safety, structural safety and public safety M = Managing building safety K = Knowledge management and communication S = Buildings as systems, building systems and construction products										

NOTE Under the draft APICD Regulations 2021 [5] the Principal Contractor takes all reasonable steps to ensure contractors and others involved in the building work cooperate with the other dutyholders and each other.

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 core competences in relation to leadership, decision making, and change management functions listed in Table B.5.

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021**.

Table B.5 – Mapping of leadership, decision making and change management functions to core competences										
Functions	Non-HRBs					HRBs				
	B	F	M	K	S	B	F	M	K	S
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 their impact on the build process		✓	✓		✓		✓	✓	✓	✓
Lessons learned Appraising and integration of learning from experiences and best practice	✓			✓	✓	✓			✓	✓
Construction Control Plan Maintaining the Construction Control Plan during the construction phase		✓		✓	✓		✓	✓	✓	✓
Decision making Sources of information in decision making	✓		✓	✓		✓		✓	✓	
Key to core competences: B = Behavioural competence F = Fire safety, structural safety and public safety M = Managing building safety K = Knowledge management and communication S = Buildings as systems, building systems and construction products										

B.7 Liaising with the Client and other key stakeholders

COMMENTARY ON B.7

In accordance with the draft Building Safety Bill 2021 [5] and the draft APICD Regulations 2021 [5] the Principal Contractor is required to liaise, and share, with the Principal Designer and Building Safety Manager, any relevant information. In addition, if requested, the Principal Contractor is required to assist the Client in providing information to other designers and contractors.

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021.**

The Principal Contractor shall possess the core competences in relation to liaising with the Client and other key stakeholder functions listed in Table B.6.

Table B.6 – Mapping of managing client and design team functions to core competences										
Functions	Non-HRBs					HRBs				
	B	F	M	K	S	B	F	M	K	S
Dutyholder liaison Liaison with other dutyholders, including the Client and Principal Designer and Building Safety Manager on regulatory obligations		✓	✓	✓	✓		✓	✓	✓	✓
Stakeholder liaison Liaison with all stakeholders who impact on the pre-construction, 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		✓	✓	✓	✓		✓	✓	✓	✓
Key to core competences: B = Behavioural competence F = Fire safety, structural safety and public safety M = Managing building safety K = Knowledge management and communication S = Buildings as systems, building systems and construction products										

B.8 Developing people and teams

COMMENTARY ON B.8

It is common for built environment 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 v3.0:2021-04, 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, their occupants and visitors. The draft Building Safety Bill 2021 [4] and building regulations require that anyone carrying out design or building work is competent and those appointing them take reasonable steps to ensure they meet the requirements. This equally applies to building work not applicable under the draft Building Safety Bill 2021 [4] as a matter of good practice.

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 for the protection of all occupants and visitors throughout the building lifecycle.

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

Table B.7 – Mapping of developing self, people and team functions to core competences										
Functions	Non-HRBs					HRBs				
	B	F	M	K	S	B	F	M	K	S
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	✓		✓			✓		✓		
Key to core competences: B = Behavioural competence F = Fire safety, structural safety and public safety M = Managing building safety K = Knowledge management and communication S = Buildings as systems, building systems and construction products										

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 [17] 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 core 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 competences										
Functions	Non-HRBs					HRBs				
	B	F	M	K	S	B	F	M	K	S
Quality Assurance Quality management systems that direct, control and coordinate quality throughout the build process	✓	✓	✓			✓	✓	✓	✓	✓
Managing duties and competences Awareness and execution of duties, including ensuring the workforce are suitably competent to carry out the building work safely	✓		✓		✓	✓	✓	✓	✓	✓
Monitoring and testing Methods of measurement, key safety indicators, reviews and audits	✓		✓		✓	✓	✓	✓		✓
Managing suppliers Quality profile and references of all suppliers of materials, products, building systems and services prior to engagement			✓		✓		✓	✓	✓	✓
Quality control Coordination of safety and quality checks, including alterations	✓		✓		✓	✓	✓	✓	✓	✓
Key to core competences: B = Behavioural competence F = Fire safety, structural safety and public safety M = Managing building safety K = Knowledge management and communication S = Buildings as systems, building systems and construction products										

B.10 Managing information and communication

COMMENTARY ON B.10

Efficient information management (IM) results in improved health, safety, risk and compliance throughout the building lifecycle and IM can be enhanced by a well-coordinated digital process. BIM provides the framework and underlying principles to support better IM, and both align to the principles underpinning the golden thread. For buildings in scope of the more stringent regulatory regime this will support the golden thread of information.

Whilst the golden thread of information is mandatory for buildings in scope (HRBs) of the more stringent regime, its principles could support the golden thread of information for non-HRBs. Mandatory Occurrences 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.

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021**.

Under the draft Building Safety Bill 2021 [4], Principal Contractors will be required to be aware of and report structural and fire safety occurrences, arising during the building work which could cause a significant risk to life safety in HRBs, to the BSR.

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

Table B.9 – Mapping of managing information functions to core competences										
Functions	Non HRBs					HRBs				
	B	F	M	K	S	B	F	M	K	S
Information management Documented information, including its extent and suitability			✓	✓				✓	✓	
Construction digital strategy Digital strategy for the build management				✓	✓		✓		✓	✓
Building Information Management (BIM) Adoption of BIM throughout the construction phase				✓					✓	
Mandatory occurrences 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		✓	✓	✓			✓	✓	✓	✓
Construction Control Information flow Flow of information from the construction phase processes and onward passage			✓	✓				✓	✓	
Key to core competences: B = Behavioural competence F = Fire safety, structural safety and public safety M = Managing building safety K = Knowledge management and communication										

S = Buildings as systems, building systems and construction products

NOTE For HRBs, the draft Building Safety Bill 2021 [4] provides powers to prescribe documents to be supplied with building control applications, which the Government proposes to use to require a signed declaration from the Client that they have assessed and are content with the competence of the Principal Contractor.

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.

BSI Flex 8670 v3.0:2021-04, *Built environment – Core criteria for building safety in competence frameworks – Code of practice*;

PAS 8671, *Built environment – Framework for competence of Individual Principal Designers and Designated Individuals working under Organizational Principal Designers – Specification*

PAS 8673, *Built environment – Framework for competence of Individual Building Safety Managers and Nominated Individual Building Safety Managers – Specification.*

Other publications

[1] CONSTRUCTION INDUSTRY COUNCIL. *Safer people, safer homes: Building safety management.* Final report to MHCLG Industry Response Group (IRG). London: Working Group 8, 2020.

[2] GREAT BRITAIN. *The Construction (Design and Management) Regulations 2015.* London: The Stationery Office, 2015.

[3] GREAT BRITAIN. *The Health and Safety at Work Act 1974.* London: The Stationery Office, 1974.

[4] GREAT BRITAIN. *The draft Building Safety Bill 2021.* London: The Stationery Office, 2021.

[5] GREAT BRITAIN. *The draft Building (Appointment of Persons, Industry Competence and Dutyholders) (England) Regulations 2021.* London: The Stationery Office, 2021.

[6] MINISTRY OF HOUSING COMMUNITIES AND LOCAL GOVERNMENT. *Building a safer future: Independent review of building regulations and fire safety: Final report.* London: MHCLG, 2018.

[7] CONSTRUCTION INDUSTRY COUNCIL. *Setting the bar. A new competence regime for building a safer future.* London: Working Group 0, 2020.

[8] DEPARTMENT FOR LEVELLING UP, HOUSING AND COMMUNITIES. *Building Safety Bill: Explanatory notes.* London: DLUHC, 2021.

[9] GREAT BRITAIN. *The draft Higher-Risk Buildings (Descriptions and Supplementary Provisions) Regulations 2021.* London: The Stationery Office.

[10] GREAT BRITAIN. *The Building Act 1984.* London: The Stationery Office.

[11] ROYAL INSTITUTION OF CHARTERED SURVEYORS. *The future of BIM: Digital transformation in the UK construction and infrastructure sector.* London: RICS, 2020.

[12] GREAT BRITAIN. *The Building Regulations 2010.* London: The Stationery Office.

WARNING. THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A PUBLISHED PAS.
THIS DRAFT IS NOT CURRENT BEYOND **10 NOVEMBER 2021.**

[13] DEPARTMENT FOR LEVELLING UP, HOUSING AND COMMUNITIES. *A reformed building safety regulatory system: Government response to the 'Building a Safer Future' consultation.* London: DLUHC, 2020.

[14] DEPARTMENT FOR LEVELLING UP, HOUSING AND COMMUNITIES. Building Regulations Advisory Committee: Golden thread report. London: DLUHC, 2021.

[15] ROYAL INSTITUTE OF BRITISH ARCHITECTS. *RIBA Plan of Work 2020.* London: RIBA, 2020.

[16] DEPARTMENT FOR LEVELLING UP, HOUSING AND COMMUNITIES. *Building Safety Bill: Government response to pre-legislative scrutiny by the Housing, Communities and Local Government Select Committee.* London: DLUHC, 2021.

[17] 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. Northampton: CABE, 2021.

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

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

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

Draft BS 8644-1, Digital management of fire safety information, Part 1: Design, construction, handover, asset management and emergency response – Code of practice

Draft BS EN 17632, Building Information Modelling (BIM) – Semantic Modelling and Linking (SML)

GREAT BRITAIN. The Management of Health and Safety at Work Regulations 1999. London: The Stationary Office, 1999.

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

DZIEKOŃSKI, K. Project managers' competencies model for construction industry in Poland. Elsevier Ltd, 2017.