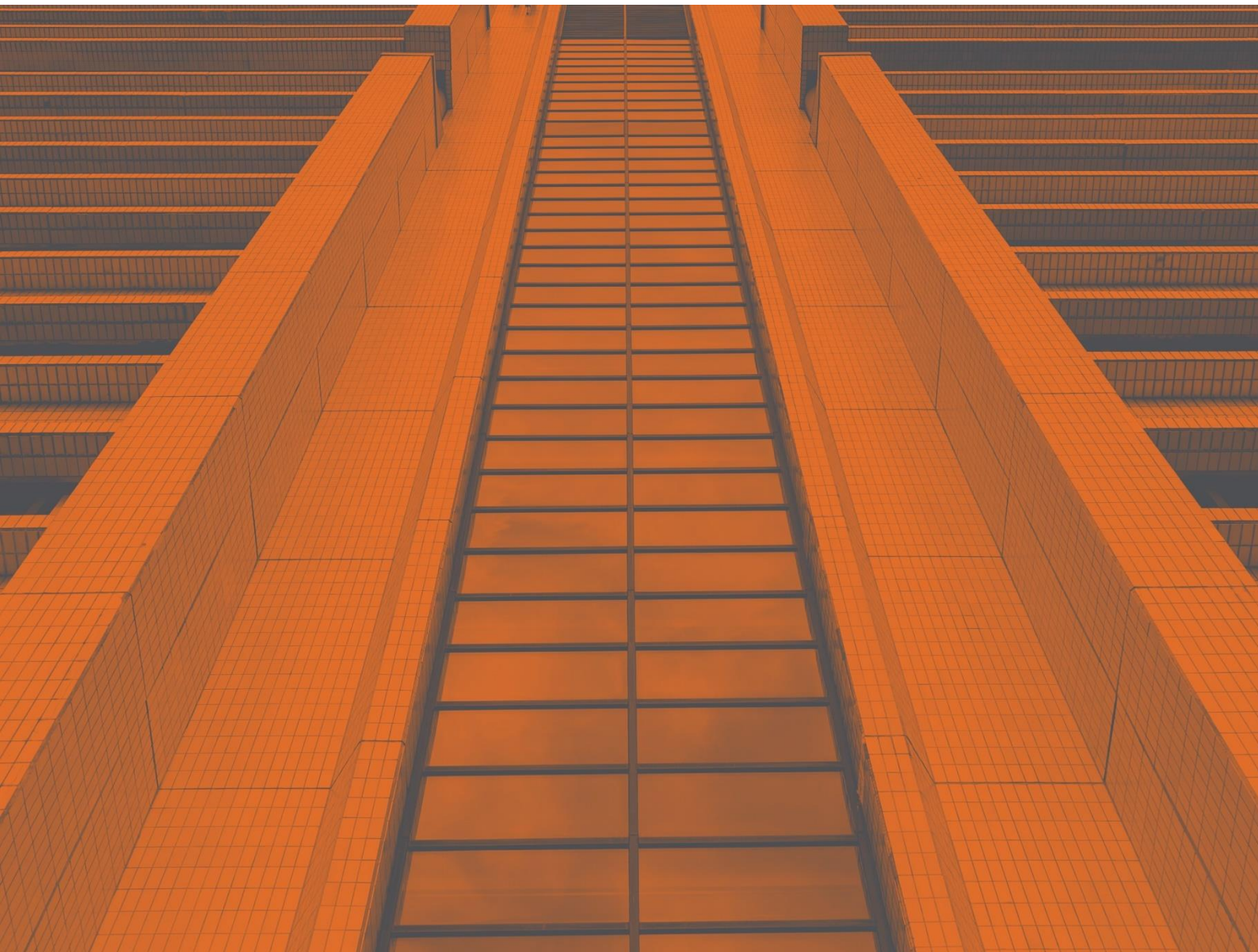


HRB Structures Register – Guidance for Applicants

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Introduction

There is one Standard pathway to registration on the HRB Structures Register. This is a jointly held licence by ICE and IStructE, with IStructE administering the Register. All applicants, regardless of their registration/membership level and original route to professional registration, will be required to submit a complete application and undertake the full Professional Review Interview against the UK-SPEC HRB Structures Annex competences.

Please ensure you read this document thoroughly to avoid any delays in processing your application.

Eligibility

Applicants for the HRB Structures register need to meet the following criteria:

1. Current membership of either ICE or IStructE in the relevant professional grade of membership*
2. Meet the academic standard in force at the time of their application for either ICE or IStructE professional membership (which may have been determined through an ICP)
3. A minimum of 5 years' experience, post-registration in/election to the relevant professional grade of membership

*Note that the applicant does not need to hold current EngTech, IEng or CEng registration at the time of applying to join the HRB Structures register.

Application Documents

Applicants are required to submit the following documents:

- ▶ Completed and signed application form
- ▶ CV
- ▶ 5 x Experience Report Forms – one for each of the five UK-SPEC HRB Structures Annex competences AA to EE
- ▶ Application fee of £210 (charged after application is received)

Additionally, applicants need to prepare a portfolio of evidence to support the statements made in the Experience Report Forms which will be submitted by the applicant directly to the HRB PRI Reviewers when requested, usually around two weeks prior to the interview date.

Application Process

NB: administration for the HRB (Structures) Register application and assessment process is undertaken by staff at the IStructE.

1. On receipt of application IStructE will check eligibility, qualification details and completeness of the application.
2. The assessment fee will be added to your account and you will be asked for payment.
3. After receipt of assessment fee payment, your application will be sent to two HRB Reviewers and they will contact you to request your portfolio and to arrange a time and date for your interview.
4. The HRB reviewers will make a recommendation based on the outcome of the interview which will be submitted to the Joint ICE/IStructE HRB Committee for review.
5. The HRB Interview result will be approved by the Joint ICE/IStructE HRB Committee at the next quarterly meeting.
6. If you fail the HRB PRI you will be informed of the result by email and given the option to request feedback from the HRB Reviewers.
7. If you pass the HRB PRI you will be informed of the result by email and advised to pay the HRB Registration fee to the IStructE which will be passed to the Engineering Council.
8. On payment of the HRB registration fee you will be added to the HRB Structures Register.
9. IStructE will invoice for the first registration fee, then either ICE or IStructE will charge the subsequent yearly fee, depending on what you designate as your 'main' institution.

Professional Review Interview (HRB PRI)

The HRB PRI is undertaken by two appropriately qualified and trained HRB Reviewers.

The HRB PRI will be conducted online and will be approximately 60 to 90 minutes in duration, but this can vary depending on the Reviewers' need to gain sufficient information of each of the competence areas. At the start of the interview, the applicant will be asked to give an informal 5-10 minute presentation without slides. This presentation should only cover the areas of your career and experience that are relevant to HRB structures. The Reviewers will then commence with discussion/questions based on the content of your documentation.

HRB PRI Failures

You will be deemed to have failed your HRB PRI if you are not able to satisfy the Reviewers of each of the 21 competence areas of UK-SPEC HRB Structures Annex to the required level of competency (knowledge, experience or ability).

If you fail in five or fewer of the competence areas you will only be assessed against those areas when making a re-submission, provided you resubmit within three or less years of the first HRB PRI decision. However, if you fail in six or more of the competence areas you will require a full assessment when you come to reapply.

When the failure result has been ratified by the ICE/IStructE HRB Joint-Committee you will be informed in writing of the outcome. You will be able to request further feedback from the HRB PRI Assessment Form to support a future application.

Portfolio guidance

All candidates are required to prepare a portfolio of work in support of their HRB experience report forms which will need to be submitted to your reviewers prior to the interview. The deadline will usually be two to three weeks prior to the interview date. To avoid unnecessary delays in the interview process you should have the portfolio ready for submission at the time when you submit your HRB application to the IStructE.

A copy of the completed portfolio will need to be submitted to both of your reviewers via an agreed method (eg. Via email or file share software).

N.B. These will need to be submitted directly to your reviewers and not to the Institution.

If you cannot provide your portfolio within the timescales required by your reviewers, your interview may be cancelled. If your interview is cancelled because you cannot provide your portfolio in the required timescale, you will not be entitled to a refund of your application fee.

The portfolio must demonstrate that you have attained at least the minimum level of competence and responsibility for HRB registration. It is a vital element of the PRI process, and you should devote the necessary time and care to its production.

Portfolio format

When you are requested to submit your portfolio to your reviewers, you should use a method of transfer that is suitable and acceptable e.g. using a secure and appropriate electronic file transfer system/website.

The portfolio must be a single PDF with a maximum of 300 pages including drawings, sketches and any calculations. You should also include a hyperlinked index to the sections of your portfolio and bookmarking if possible. If you exceed the number of pages, your reviewers will be unable to assess all the submitted information in detail and consequently may decline to interview you.

The pages of text within the portfolio must be A4 size, i.e. you cannot reduce your pages to A5 to fit two pages onto an A4 sheet. Drawings must be no greater than A3 size. The font size used in your portfolio and Experience Report Forms must be no smaller than Arial 10. You must ensure that all A3 pages can be clearly read on a computer screen and not contain information that is too small to be viewed.

The portfolio must contain evidence relating to all competencies on which you are being assessed and allow easy cross-referencing with the Experience Report Forms. Make sure that the information provided is relevant and relates directly to the competencies and how you have achieved the standards.

You will be expected to include examples of work from a variety of projects that you have worked on. The portfolio must be sub-divided into the competencies with only the relevant documents included in each section.

Where appropriate, you should provide comments and annotations on the submitted information to help demonstrate an understanding of the work and its relevance to the competencies.

All work included within the portfolio must be your own. Submitting work carried out by other people is not permitted.

Examples of the type of information and documents you may wish to include are detailed within each competence later in the guidance. You should avoid submitting repetitive designs or drawings and full reports of projects.

Appeals Procedure

The ICE/IStructE have an appeals procedure for candidates who have been unsuccessful in their application. An appeal may be made on the following grounds only:

- ▶ Extenuating circumstances occurring immediately before or during the application process or interview, and/or
- ▶ Departure from the application or interview procedures.

Full details of the procedures are published on the Institution [website](#).

Please note that recording of your interview by any means is not permitted and any such recording cannot therefore be used as evidence in an appeal or other disagreement with the judgement of the reviewers.

HRB (Structures Annex) Competences

Introduction

The following list of compulsory Competences AA to EE, as set out in UK-SPEC HRB, details the requirements for HRB for candidates intending to apply for the HRB PRI. Please refer to the correct registration level (CEng, IEng or EngTech) related to the registration level that you currently hold.

The minimum standards required for the Competences are:

Standard	Description
K Knowledge	The lowest level, requiring an understanding of the subject and how it is applied.
E Experience	The ability to operate independently or with some supervision.
A Ability	Performing independently with no supervision, possibly supervising the work of others.

The competences, plus notes and examples, are included below.

HRB Experience Report

You need to complete one HRB Experience Report form for each of the five HRB competence areas, AA to EE. The HRB experience form is available to download from the [website](#).

General advice for completing the HRB experience report form:

Personal: the reviewers will not be interested in what your company does, they are only interested in what you have done. Therefore, ensure that you state what you have personally undertaken and try to avoid generic statements about how your company operates.

Positive: do not sell yourself short. Try to avoid statements such as 'I have limited/some experience' – you either have experience or not. Try and ensure that the correct words are applied to the relevant Competence, e.g., if it's an 'ability' competence, do not use 'experience' or 'knowledge' always use 'ability'.

Practical: ensure you state how you have achieved the competence area standards.

Chartered Engineer (CEng) Competences

AA Knowledge and understanding

Chartered Engineers shall use a combination of general and specialist engineering knowledge and understanding to optimise the application of advanced and complex systems.

This competence is about the ability to understand underpinning technical principles in fire, structural and life safety relevant to the applicant’s area of practice and applying them to develop technical solutions. This could involve technical solutions for novel problems or dealing with significant technical complexity. This may involve the integration of a range of technologies and consideration of other factors. This competence requires that an applicant is maintaining and developing their knowledge in their field of practice and not just that required for specific tasks.

HRB competency	IStructE/ICE standard and examples of evidence to demonstrate compliance with this objective
<p>To the extent that it is relevant to their role, the candidate shall demonstrate that they:</p> <p>AA1 Maintain, extend and develop a sound theoretical approach to application of relevant fire, structural and building life safety systems, principles and practices throughout the building life cycle of HRBs.</p>	<p>Minimum standard – Ability Example: Demonstrate application of approaches in design and execution of design that align with current requirements for fire and structural safety.</p>
<p>AA2 Address and develop solutions to complex or challenging building safety problems with significant levels of risk. Apply knowledge and understanding of relevant principles and technical standards to co- ordinate and integrate these into the building design.</p>	<p>Minimum standard – Ability Example: Application of current requirements in relation to the two key events, fire spread and structural integrity as identified in the Building Safety Act.</p>

BB Design, development and solving engineering problems

Chartered Engineers shall apply appropriate theoretical and practical methods to the analysis and solution of engineering problems.

This competence is about the ability to apply engineering knowledge effectively and efficiently to the individual task which need to be undertaken in the applicant’s role in relation to HRBs.

HRB competency	IStructE/ICE standard and examples of evidence to demonstrate compliance with this objective
<p>To the extent that it is relevant to their role, the candidate shall demonstrate that they:</p> <p>BB1 Take an active role in the identification and definition of project requirements, problems and opportunities throughout the building life cycle of HRBs.</p>	<p>Minimum standard – Ability Example: Identify aspects of the design of the structure of the HRB are affected by fire spread and structural integrity. Staircase layout, fire rating of elements, and tying action across the structure are examples of these.</p>
<p>BB2 Undertake research, analysis and development to define, refine and apply relevant standards, testing, assessment, site inspection and maintenance procedures for building materials, products, components, assemblies and systems effectively throughout the building life cycle.</p>	<p>Minimum standard – Ability Example: Identify where optimisation in the design of the structure can be applied without compromising the safety requirements of the building’s occupants. Use of testing and research into material sciences are examples of this.</p>
<p>BB3 Can implement engineering tasks and evaluate the effectiveness of engineering solutions.</p>	<p>Minimum standard – Ability Example: Execute and/or guide the analysis and design of structures to HRBs. Fire engineering of structural elements is an example of this. Also being able to respond to change and how that affects the safety of the occupants of the HRB.</p>

CC Responsibility, management and leadership

Chartered Engineers shall demonstrate technical and commercial leadership.

This competence is about the ability to plan the applicant’s own work and manage or specify the work of others effectively, efficiently and in a way which provides leadership at an appropriate level, whether technical or commercial. Leadership is not necessarily about having a formal line management role. In matrix management and other types of organisational structure, where Chartered Engineers are working within complex and varied working relationships, they will provide leadership to achieve objectives. This competence is also about the ability to consider and identify improvements to quality.

HRB competency	IStructE/ICE standard and examples of evidence to demonstrate compliance with this objective
<p>To the extent that it is relevant to their role, the candidate shall demonstrate that they:</p> <p>CC1a Plan the work and resources needed to enable effective implementation of significant engineering tasks or projects in association with or to fulfil key roles, responsibilities and duties relating to HRBs.</p>	<p>Minimum standard – Ability Example: Comparison against the design and construction programme and how resources were applied to achieve the requirements described in BB2.</p>
<p>CC1b Develop effective approaches and use appropriate information management principles to manage, distribute and maintain information which is critical to ensuring that HRBs are built, operated and maintained to be safe throughout the building lifecycle.</p>	<p>Minimum standard – Ability Example: Minutes of meetings, emails to other team members and sketches/notes provided to other relating to decisions made concerning the design of the structure to the HRB.</p>
<p>CC2 Develop, manage, maintain and use systems to challenge unacceptable behaviour or practice where duties are not being effectively met and raise, report, escalate or flag risks to safety with clients, managers, duty holders or regulators.</p>	<p>Minimum standard – Experience Example: Identify when design development and criteria divert away from the safety requirements of HRBs and/or originate CROSS reports pertaining to potentially unsafe practices/narrow misses.</p>
<p>CC3a Lead teams or technical specialisms to assist others, including Duty Holders and Regulators, to meet changing requirements for technical and procedural requirements for safe outcomes.</p>	<p>Minimum standard – Experience Example: Direct and/or advise others in the design team and the PAP to ensure the requirements of the BSA in relation to HRBs is maintained.</p>
<p>CC3b Define requirements for competence, identify and manage the limits of competence of self and others and undertake appropriate mitigating actions to manage risk including developing procedures to procure more specialist advice when necessary and use appropriate evidence in the management of ‘soft hazards’.</p>	<p>Minimum standard – Ability Example: Explanation to the PAP and other members of the design team what the structural engineer can and will do within the confines of their own expertise in relation to the design, construction and management of the structure of the HRB.</p>
<p>CC4 Bring about continuous quality improvement and promote best practice.</p>	<p>Minimum standard – Ability Example: Following a QMS and identifying how it is applied to the design of an HRB.</p>

DD Communication and interpersonal skills

Chartered Engineers shall demonstrate effective communication and interpersonal skills.

This is the ability to work with others constructively, to explain ideas and proposals clearly and to discuss issues objectively and constructively.

<p>HRB competency</p> <p>To the extent that it is relevant to their role, the candidate shall demonstrate that they:</p>	<p>IStructE/ICE standard and examples of evidence to demonstrate compliance with this objective</p>
<p>DD1 Develop procedures and approaches to enable effective and appropriate communications with occupants, the public and with others, orally and in writing.</p>	<p>Minimum standard – Experience Example: Engaging with local authorities and other relevant government bodies.</p>
<p>DD2 Clearly present and discuss proposals, justifications and conclusions.</p>	<p>Minimum standard – Ability Example: Communication of concept designs, articulation of the scope of work in fee proposals and/or internal technical memos.</p>
<p>DD3 Demonstrate personal and social skills and awareness of diversity and inclusion issues.</p>	<p>Minimum standard – Knowledge Example: Empathetic based actions with respect to working with other members of the design team and the PAP and the building occupants.</p>

EE Personal and professional commitment

Chartered Engineers shall demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment.

This competence is about ensuring that the applicant is acting in a professional manner in their work and in their dealings with others. A Chartered Engineer should set a standard and example to others with regard to professionalism.

<p>HRB competency</p> <p>To the extent that it is relevant to their role, the candidate shall demonstrate that they:</p>	<p>IStructE/ICE standard and examples of evidence to demonstrate compliance with this objective</p>
<p>EE1 Demonstrate leadership, understanding and ability to manage complex ethical considerations relating to the occupation of HRBs and apply these to self and others in practice.</p>	<p>Minimum standard – Experience Example: Knowledge of the relevant PEI’s code of conduct and how the candidate has demonstrated these values when designing HRBs.</p>
<p>EE2a Maintain, extend and contribute to development of good practice in complying with relevant legislation, regulations, standards of performance applicable to HRBs.</p>	<p>Minimum standard – Ability Example: Application of current guidance on health and safety systems that pertain to HRBs.</p>
<p>EE2b Develop effective approaches to risk management and apply knowledge and understanding of specific and complex risks relevant to HRBs in the development and application of risk management frameworks and safe systems of work.</p>	<p>Minimum standard – Experience Example: Understand how risk is related to events in the context of the BSA for HRBs and/or demonstrate use and application of relevant CROSS articles in the course of project delivery.</p>

Chartered Engineers shall demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment.

EE2c Identify and refine procedures to work within or apply in practice statutory process and procedures for HRBs.

Minimum standard – Experience

Example: Sharing of knowledge on the BSA to colleagues and other members of the design team.

EE3 Understand the principles of sustainable development and apply them to their work.

Minimum standard – Ability

Example: Internal initiatives relating to sustainability and how they are applied to the design of HRBs.

EE4 Carry out and record the CPD necessary to maintain and enhance competence in HRBs.

Minimum standard – Ability

Example: Attending CPD talks, reading articles in technical journals, news reports on fires and structural damage to HRBs.

EE5 Understand the ethical issues that may arise in their role and carry out their responsibilities in an ethical manner.

Minimum standard – Ability

Example: Recognise the duty of care and advise the PAP of their obligations under the BSA in relation to HRBs and demonstrate knowledge of root causes of previous events to HRBs and how these would be avoided in similar circumstances.

IEng and EngTech competences

The HRB competence requirements for IEng and EngTech registrants are to follow. If you require further information on this please contact the Registrations Team on registrations@istructe.org

HRB Registration Process

Once your PRI pass result has been approved by the Joint ICE/IStructE HRB Committee, the initial registration fee will be added to your IStructE account and you will be contacted to make payment online, via the secure portal. Once paid, IStructE will pass your details to the Engineering Council and they will add you to the HRB Structural Register.

There is not a designated HRB postnominal but the appropriate descriptor, can be used: Chartered HRB Engineer, Incorporated HRB Engineer or HRB Engineering Technician.

HRB Renewals/re-registration

Your home/main Institution, either ICE or IStructE, will add the annual registration fee to your account the year after your initial registration. This will be the institution through which you normally pay your CEng/IEng/EngTech fees.

Please note that the HRB renewal fee is in addition to your usual CEng/IEng/EngTech fees, if this is applicable to you.

This Registration will be valid for 5 years from your HRB PRI pass. IStructE will carry out the re-registration after 5 years in accordance with the Engineering Council’s procedures.

Appendix: definitions

Acronym	Definition
PRI	Professional Review Interview
PEI	Professional Engineering Institution
HRB	Higher Risk Buildings
CROSS	Collaborative Reporting for Safer Structures. Confidential safety reporting system for buildings and other structures. Operated jointly by IStructE and ICE
UK-SPEC	UK Standard for Professional Engineering Competence and Commitment
QMS	Quality Management System
BSA	British Safety Act
PAP	Principle Accountable Person
CPD	Continuing Professional Development