The first step to completing your Professional Review with the Institute of Highway Engineers

Guidance notes for:

**Incorporated Engineer**
(Standard and Individual Route)
Professional Registration
This set of guidance notes is your first step in gaining Incorporated Engineer professional registration through the Institute of Highway Engineers. This booklet is essential for both Standard and Individual Route IEng professional review applications. It provides you with information and guidance to ensure the relevant paperwork is completed to the required standard as quickly and easily as possible. Please read this booklet in conjunction with the IEng application form as the two are designed to go hand in hand..

In order to obtain IEng registration you will need to be an existing IHE member. Please refer to our website at www.theihe.org/membership if you need to apply for IHE membership.

To gain Engineering Council registration, engineers and technicians prove their competence and commitment in a professional review of their portfolio submission to the IHE. Incorporated Engineers are the mainstream operational managers of current technology and are at the forefront of developing technology. They are characterised by their ability to act as exponents of today’s technology through creativity and innovation, they maintain and manage applications of current and developing technology, and may undertake engineering design, development, manufacture, construction and operations. Incorporated Engineers are engaged in technical, financial and commercial planning and management and they demonstrate a personal and professional commitment to society, to their profession and to the environment.

Incorporated Engineers are able to demonstrate the theoretical knowledge to solve problems in developed technologies using well proven analytical techniques. Incorporated Engineers have effective interpersonal skills in communicating technical matters and maintain a continuing commitment to professional engineering values.

Traffic management engineers, network managers, maintenance engineers, development management officers, transportation planners, highway designers, signals engineers, project managers and road safety engineers are typical Incorporated Engineer positions. Successful applications of their knowledge deliver engineering projects or services using established technologies and methods, while maintaining a responsibility for projects, financial planning and management together with some responsibility for leading and developing other professional staff. Remember that, although you may work in a team, the Institute wants to know what you do, what you recommended, and the extent of your personal responsibility.

Becoming an Incorporated Engineer demonstrates a commitment to professional standards, setting you ahead of unregistered engineers and showing a pride in your achievements.

Many will have a BEng or BSc degree. Others will have gained the necessary skills, knowledge and experience via a non-academic route through practical experience in the highways industry. This application process will help the Institute of Highway Engineers assess the five requirements of IEng standard contained within the UK-SPEC of UK Standard for Professional Engineering Competence laid down by the Engineering Council. These are:

A. Use a combination of general and specialist engineering knowledge and understanding to apply existing and emerging technology.

B. Apply appropriate theoretical and practical methods to design, develop, manufacture, construct, commission, operate, maintain, decommission and re-cycle engineering processes, systems, services and products.

C. Provide technical and commercial management.

D. Demonstrate effective interpersonal skills.

E. Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment.
Completing the application form

To keep your application as clear as possible, we would request the following:

- If completing the application form by hand, please write in BLOCK CAPITALS and in black ink.
- Please complete only the relevant fields – We have included guidance as to which sections should be left blank if they are not relevant.
- You should aim to complete the application form with as much detail as possible. This will reduce the instances where we need to ask you for more information at a later date.
- Remember to include any additional documentation with your application when you see this symbol. Please tick the relevant box on the check list at the back of the application form if you are including additional evidence.

Please post your completed application form, along with your submission, to:
Membership, Institute of Highway Engineers, Floor 32–34, 286 Euston Road, London NW1 3DP.

And finally

We hope you find the pathway to Incorporated Engineer application a simple process. The Institute of Highway Engineers is committed to helping you achieve the career benefits that professional registration can bring. Please contact us on: 020 3551 5681 or email us at professionalreviews@theihe.org if we can provide any assistance or guidance at any stage of your IEng application.
**HOW TO APPLY**

**Are you a member of IHE?**

- **YES**
  - Join IHE
  - Find a member to assist you or book an IHE career surgery appointment

- **NO**
  - Apply for a career assessment with IHE or obtain advice by booking an IHE career surgery appointment
    - **Further Learning**
    - **Individual Route**

**Do you have a benchmark qualification?**

- **NO**
  - Prepare your portfolio of evidence. Make three copies and an electronic version. Send one paper copy and electronic copy to IHE together with your application and payment forms.
  - IHE appoints reviewers and informs you of names. Send paper copy of portfolio to each
  - Experiential application form (CEng only) or Technical Report submitted to IHE for approval
  - Reviewers assess submission. Synopsis of assessment sent to you with invitation to interview

- **YES**
  - Experiential application (CEng only)
  - Technical Report synopsis submitted and approved by IHE ASP Panel
  - Once approved include in your submission portfolio

**Review interview held. Recommendation sent to IHE M&Q Committee for ratification.**

**Appointed IHE Fellow and registered with Engineering Council at the level of registration you applied for.**
In this section we give some general guidance and background to making your IEng submission with the IHE.

### 1. Entry routes and requirements

Before you start compiling your IEng submission, you will need to establish which route of application you’re going to take. Two routes are available to Incorporated Engineers, ‘Standard’ and ‘Individual’. Choosing which one is applicable to you will depend on the training and qualifications you have undertaken so far in your career. Both routes will require you to demonstrate your competency in applying proven techniques to solve problems and supervise works or people.

It is not possible to cover every individual situation in this document. If your qualifications or experience are not covered in the following guidance you may still be suitable to apply for IEng. You should ask the IHE for an individual Career Assessment. Forms and guidance on what we require to undertake this process are available on our website at [https://members.theihe.org/page/formsandguidance](https://members.theihe.org/page/formsandguidance) (log in required) Your documents will then be put to the IHE Academic Standards Panel for consideration by engineering or academic professionals. They will either confirm your eligibility or provide you with feedback and guidance on the best route for you to achieve IEng registration.

**STANDARD ROUTE**

These qualifications meet the requirements to pursue IEng registration via the Standard Route:

- BSc or BEng
- BSc (Hons) or BEng (Hons)
- HND or HNC normally started before 1999
- Most MSc or MEng degrees also fulfil the academic base for IEng

Your degree or diploma must be in a relevant discipline such as Engineering or Civil Engineering. You will need to ensure your degree has been accredited by the IHE or the Joint Board of Moderators (of which the IHE is a member) as meeting the educational requirements for a Incorporated Engineer. You will need to refer to two sources of information to establish this:

- Engineering Council Accredited Course Search (ACAD) [www.engc.org.uk/education-skills/course-search/acad](http://www.engc.org.uk/education-skills/course-search/acad)
- Joint Board of Moderators (JBM) [www.jbm.org.uk/accreditation.aspx](http://www.jbm.org.uk/accreditation.aspx)

If you have studied overseas, a NARIC Certificate of Comparability that covers your degree will enable you to study via the Standard Route. You should contact NARIC directly, and obtain a Certificate of Comparability yourself before making your application.

If your degree has not been accredited by the IHE or JBM you may still be able to follow the Standard Route. If you feel your BEng, BSc, MSc or MEng are in a relevant field and fulfil the criteria for IEng registration, but are not listed, please ask the IHE for an individual Career Assessment. Forms and guidance on what we require to undertake this process are available on our website at [https://members.theihe.org/page/formsandguidance](https://members.theihe.org/page/formsandguidance) (log in required) Your documents will then be put to the IHE Academic Standards Panel for consideration by engineering or academic professionals. If the panel take the view that your degree contains enough scientific and mathematical knowledge to fulfil the requirements for IEng registration, their approval is then taken as being equivalent to Joint Board of Moderators or Engineering Council’s accreditation.
INDIVIDUAL ROUTE
If you have other qualifications which do not fulfil the Standard Route criteria, or none at all, but can demonstrate competence and commitment to the appropriate depth and level through your work experience, then you can be individually assessed. This is divided into two areas: Further Learning and the Personalised Report Option.

To obtain Incorporated Engineer registration through the Individual Route you will need to demonstrate you have met the Learning Outcomes set by the Engineering Council. These Learning Outcomes are the same as those Higher Education providers need to meet in order to get JBM accreditation for their educational programme.

The Learning Outcomes you are seeking to demonstrate by Further Learning (that doesn’t lead to a Standard Route pre-requisite qualification) or the Personalised Report Option are listed here:

1. Science and mathematics
Engineering is underpinned by science and mathematics, and other associated disciplines, as defined by the relevant professional engineering institution(s).

Incorporated Engineers will need:

1.1 Knowledge and understanding of the scientific principles underpinning relevant current technologies, and their evolution.

1.2 Knowledge and understanding of mathematics and an awareness of statistical methods necessary to support application of key engineering principles.

2. Engineering analysis
Engineering analysis involves the application of engineering concepts and tools to the solution of engineering problems.

Incorporated Engineers will have:

2.1 Ability to monitor, interpret and apply the results of analysis and modelling in order to bring about continuous improvement.

2.2 Ability to apply quantitative methods in order to understand the performance of systems and components.

2.3 Ability to use the results of engineering analysis to solve engineering problems and to recommend appropriate action.

2.4 Ability to apply an integrated or systems approach to engineering problems through know-how of the relevant technologies and their application.

3. Design
Design at this level is the creation and development of an economically viable product, process or system to meet a defined need. It involves technical and intellectual challenges and can be used to integrate all engineering understanding, knowledge and skills to the solution of real problems.

Incorporated Engineers will therefore need the knowledge, understanding and skills to:

3.1 Be aware of business, customer and user needs, including considerations such as the wider engineering context, public perception and aesthetics.

3.2 Define the problem, identifying any constraints including environmental and sustainability limitations; ethical, health, safety, security and risk issues; intellectual property; codes of practice and standards.

3.3 Work with information that may be incomplete or uncertain and be aware that this may affect the design.

3.4 Apply problem-solving skills, technical knowledge and understanding to create or adapt design solutions that are fit for purpose including operation, maintenance, reliability etc.

3.5 Manage the design process, including cost drivers, and evaluate outcomes.

3.6 Communicate their work to technical and non-technical audiences.
4. Economic, legal, social, ethical and environmental context
Engineering activity can have impacts on the environment, on commerce, on society and on individuals.

Incorporated Engineers therefore need the skills to manage their activities and to be aware of the various legal and ethical constraints under which they are expected to operate, including:

4.1 Understanding of the need for a high level of professional and ethical conduct in engineering and a knowledge of professional codes of conduct.

4.2 Knowledge and understanding of the commercial, economic and social context of engineering processes.

4.3 Knowledge of management techniques that may be used to achieve engineering objectives.

4.4 Understanding of the requirement for engineering activities to promote sustainable development.

4.5 Awareness of relevant legal requirements governing engineering activities, including personnel, health & safety, contracts, intellectual property rights, product safety and liability issues.

4.6 Awareness of risk issues, including health & safety, environmental and commercial risk.

5. Engineering practice
This is the practical application of engineering skills, combining theory and experience, and use of other relevant knowledge and skills.

This can include:

5.1 Knowledge of contexts in which engineering knowledge can be applied (eg operations and management, application and development of technology, etc)

5.2 Understanding of and ability to use relevant materials, equipment, tools, processes, or products.

5.3 Knowledge and understanding of workshop and laboratory practice.

5.4 Ability to use and apply information from technical literature.

5.5 Ability to use appropriate codes of practice and industry standards.

5.6 Awareness of quality issues and their application to continuous improvement.

5.7 Awareness of team roles and the ability to work as a member of an engineering team.

6. Additional general skills
Incorporated Engineers must have developed transferable skills, additional to those set out in the other learning outcomes, that will be of value in a wide range of situations, including the ability to:

6.1 Apply their skills in problem solving, communication, information retrieval, working with others and the effective use of general IT facilities.

6.2 Plan self-learning and improve performance, as the foundation for lifelong learning/CPD.

6.3 Plan and carry out a personal programme of work.

6.4 Exercise personal responsibility, which may be as a team member.

FURTHER LEARNING
There are two types of Further Learning. The first is to compile a programme of JBM Further Learning, the second is to work with the IHE Academic Standards Panel to produce a Further Learning Report. Both options are only open to holders of approved HNC and HND qualifications in a relevant engineering discipline whom the IHE has confirmed may pursue this route.

APPROVED FURTHER LEARNING
This Further Learning option consists of completing a JBM programme of accredited Further Learning, by which you will be able to demonstrate you have met the Learning Outcomes set by the Engineering Council. This will enable you to reach the same level of technical knowledge as someone who has completed an accredited Bachelors degree. The Joint Board of Moderators provide a list of approved Further Learning on their website www.jbm.org.uk/GeneralContent.aspx?ContentID=19
FURTHER LEARNING REPORT

Further learning is the knowledge and understanding that underpins performance. Your activities should provide systematic understanding and critical awareness of current problems or insights into subjects at the forefront of professional practice. The important factor is that the learning must develop understanding of engineering principles to Bachelors level. It is not the same as training or initial development which is about performance and competence.

Your final report must indicate how, through Further Learning (that is to say, further to your HNC or HND), you have bridged the academic gap equivalent to a Bachelors level qualification, which forms the academic standard specified by the Engineering Council for eventual registration as a Incorporated Engineer. This will be achieved through demonstrating achievement of the Bachelors level Learning Outcomes.

A further learning plan will need to be agreed by the IHE and this must be followed in order to produce a Further Learning Report. Your proposed Further Learning should be pre-planned and carefully thought through as the IHE Academic Standard Panel needs to be convinced that you have given detailed thought to the learning opportunities available to you and to a realistic programme timescale that will be dependent on your personal circumstances. Further Learning achieved prior to the submission of your plan of work may be taken into account when preparing your plan. If you believe that as part of your programme you are in a position to claim credit for prior learning you must produce evidence of when that learning was achieved together with details of how and to what extent it meets the Learning Outcomes.

Once you have completed your agreed Further Learning plan, your report will then be assessed by the IHE against the Engineering Council Learning Outcomes. The IHE ASP will not expect to be overwhelmed with a massive portfolio containing evidence of everything you have ever done during your training but rather selective and appropriate evidence of how you have met the Learning Outcomes, as initially defined in, and developed from, your learning plan. The key principle is that it must represent learning at Bachelors level and there must be evidence that formal, documented assessment of learning has taken place. The completion of all the agreed training or courses detailed on your Further Learning plan is not in itself an indication that you have met the requirements of Further Learning no matter how well executed your training programme was. Further Learning and training are not the same thing although elements of training can contribute to a Further Learning programme. In judging any submission the ASP will need to be convinced that learning, and appropriate assessment of that learning, has taken place and it is to Bachelors level, in order to satisfy the Engineering Council Learning Outcomes.

The IHE Academic Standard Panel will need to work with you step by step throughout. Therefore, your first step should be to ask the IHE for an individual Career Assessment stating that you wish to apply for IEng via the Further Learning option. Forms and guidance on what we require to undertake this process are available on our website at https://members.theihe.org/page/formsandguidance (log in required) Your documents will then be put to the IHE Academic Standards Panel for consideration by engineering or academic professionals.

Your report is concerned with your learning since completing your undergraduate studies and can draw on formal academic learning, short courses, work-based learning or all three. By its very nature, Further Learning will be very specific to you as an individual, so the Career Assessment is the essential first step. The following advice on content and structure of your Further Learning Report is intended to help, but it is not mandatory.

1. Qualifications and career summary
List your formal academic qualifications and summarise your career to date (key posts and responsibilities) and describe your current position. Attach certified copies (signed by your current Line Manager) of your certificates, list of units or modules and an abstract of any dissertation.

2. Learning Outcomes
Against each Learning Outcome, list any relevant formal training and provide details of syllabuses for all formal qualifications and courses explaining how they contribute to meeting the outcome. You will need to provide some background on how the Learning Outcome has been achieved. Summarise the technical nature of the learning, the technical objective of the scheme and support your explanation with relevant calculations, results, conclusions and recommendations.
3. Evidence
To support your report, include clear details of the activities and assignments used to test your knowledge and understanding of the learning undertaken. This can be details of assessment transcripts, copies of drawings or reports or witness testimonials. Records of oral and other assessments that have taken place in the workplace can be used and these records should contain the names, qualifications and job details of those carrying out the assessments. You should include sufficient supporting evidence, but please be selective and don’t include unnecessary information.

4. General advice
To produce a successful Further Learning Report, you should ensure the completed document:

- Captures your involvement on significant engineering projects or schemes.
- Explains, not describes.
- Provides analysis, not discussion.
- Provides evaluation, not opinion.
- Explicitly refers to engineering knowledge not in your initial qualifications.
- Is not a review of your experience or employment responsibilities.
- Is not concerned with your managerial or organisational competency or experience.
- Is a separate, standalone document from your professional review report.
- Is driven by quality not quantity, particularly when it comes to including supporting evidence. Further Learning depends on achieving the Learning Outcomes and not on adding up time spent on various activities.
- Identifies which parts are yours if your documents were produced jointly with others.
- Maintains a focus on demonstrating your academic knowledge and understanding of the principles that underpin your work. Including key calculations, engineering drawings and diagrams as appendices.
- Includes appropriate references to back up your analysis or conclusions.

PERSONALISED REPORT OPTION (Formerly Technical Report Option)
This option opens up a pathway to Incorporated Engineer registration for any suitable candidate, regardless of academic background. The purpose of the Personalised Report Option is to establish your knowledge of engineering principles and therefore your report must be technical, a management based report is not acceptable. The Personalised Report is a self-contained, standalone report that provides an ordered and critical account of your technical competencies and it should show what you have learned. This is not a general report of your work experience or your professional or managerial ability because you are seeking to demonstrate your knowledge of underpinning engineering principles and how you apply them. You should explain clearly in your report the activities you did or were responsible for.

Your Personalised Report should demonstrate not just what you did, but explain why and what engineering principles you considered and applied. Your report should not exceed 10,000 words, although 5,000 words are normally sufficient to set out the key aspects of your technical competence. It must give details of a technical aspect (or aspects) of highway engineering practice in which you have played a major part and it must show how you resolved technical problems using engineering principles and how your knowledge meets the Engineering Council Learning Outcomes. You should include the successes and failures in relation to the application of engineering principles, and the lessons you learned, importantly, your Personalised Report shouldn’t include examples of your professional competence such as management skills and commercial awareness.

Before you start your Personalised Report you must submit a synopsis to the IHE for approval. This will be assessed by the IHE Academic Standard Panel and you cannot proceed without their approval. In your Personalised Report Synopsis you need to set out clearly how you intend to demonstrate your technical knowledge and understanding by identifying the engineering principles involved rather than just describing the projects on which you have been working. Set out the project or scheme and the strategy you adopted to address the problem, outline the structure of your proposed report and the type of evidence you will submit. The synopsis should be approximately two pages long and on the right-hand side, you should cross reference the synopsis to the Engineering Council Learning Outcomes.
You should then email your completed Personalised Report Synopsis to Professionalreviews@theihe.org asking for it to be approved. Your documents will then be put to the IHE Academic Standards Panel (ASP) for consideration by engineering or academic professionals. We aim to grant Personalised Report Synopsis approval within about eight weeks, but in some circumstances it may take longer. Do not write your Personalised Report until you have received written confirmation from the IHE that your synopsis has been approved. Once the IHE ASP has approved your synopsis, you can begin writing your Personalised Report.

Write about one or two significant projects that you undertook relating your application of engineering principles to an engineering project. You should offer an ordered and critical exposition of a subject or project, clearly demonstrating your contribution, explaining the development aims and the problems you encountered and demonstrate how they were resolved or achieved by applying engineering principles and knowledge. You should demonstrate that you investigated the situation, critically evaluated options and interpreted results. Where applicable, you should include calculations and refer extensively to engineering principles and back up your analysis with references to supporting evidence. The project must be complex and you must demonstrate originality and creativity as theoretical and historical studies are not appropriate. Most applicants submit a project or design study in which they have played a significant role at the relevant level.

The report can include, or be largely based on, a technical report or design study written as part of your normal job, provided you add a commentary identifying how the work contributed to your learning and development as well as highlighting how you applied engineering principles to solving problems. Throughout the report, you should cross reference in the right hand margin against the Engineering Council Learning Outcomes. Do not confuse managerial responsibility with technical responsibility, the project(s) chosen must be technical to allow you to demonstrate knowledge of the fundamentals in your discipline and an ability to apply those principles to a particular problem. A suggested framework for your Personalised Report is as follows:

1. Title Page
2. List of contents
3. Summary
   Provide a brief summary of main conclusions or findings and achievements.
4. Introduction
   What the paper is about (one page) indicating main topics and points to be covered.
5. Background
   Aim of the project/study.
6. Main body of the report
   Explain the whole project, use engineering principles to interpret and evaluate data, explain your contribution. Cross reference your Personalised Report in the right hand margin to the EC Learning Outcomes. It is also helpful to cross reference your supporting documentary evidence to the Learning Outcomes in a matrix or grid.
7. Discussion
   Draw together the arguments in the report. From a summary of the main points, develop how these led to a particular view or course of action.
8. Conclusion
   Conclude with a critical evaluation of your work. Identify any lessons learned and recommendations for further work.
9. References
10. Bibliography
11. Glossary
12. Appendices
    Your Personalised Report should include sufficient supporting evidence documents. These should be included as appendices and may include calculations, diagrams/drawings/documents etc. Choose key documents that show your engineering knowledge and understanding, but these will need to be chosen carefully.
Once your report has been approved, the two-stage interview will be conducted by at least two reviewers. In the first interview the focus is on testing the academic relevance of your knowledge and understanding against the Engineering Council Learning Outcomes. You will be expected to give a presentation of approximately twenty minutes in which you will expand upon your Personalised Report and the reviewers will aim for a balance of discussion that will enable you to fully demonstrate you have met the Engineering Council’s expectation, identified through achievement of the Bachelors level Learning Outcomes. On completion of this interview the reviewers will confer privately and make a decision as to whether or not you have successfully demonstrated the Learning Outcomes. There will be a short break between the two interviews and if you have not satisfied the reviewers that you have met the Learning Outcomes, they will explain and will not hold the second interview. If the reviewers are satisfied that you have achieved the Learning Outcomes then you will proceed to a second interview, which will look at your professional competence in the same manner as that of a Standard Route applicant. More information on this is detailed in the ‘Your Professional Review’ section of this guidance booklet.

2. Getting started

Help and support – Mentors
Getting the right help and support is crucial to ensuring you are successful in achieving IEng registration.

You are responsible for your own development and pathway to producing your IEng submission, but support from a colleague or mentor enables you to try out ideas and keep a focus on objectives. Good mentors will try to ensure that the engineers they work with gain confidence and independence as a result of their one-to-one relationship, and are empowered to take full and effective responsibility for themselves.

The Institute of Highway Engineers has produced a short booklet explaining the roles and responsibilities of both mentors and applicants. Please refer to our website at https://members.theihe.org/page/MY CAREERPATH (log in required) for more information.

Creating your folder
All submissions must be presented in a single ring binder or lever arch folder. You should use file dividers to enable us to easily identify the relevant parts of your evidence folder and cross reference these with the section headings in the IEng application form.

The coversheet provided in section 1 of the application form must be affixed to the front of your folder.

Please note: Submissions presented in any other style of folder or binding, or without the coversheet affixed will be returned to you.

3. Your Professional Review

When you have satisfied both the education and experience requirements (by whichever route), and have completed the Incorporated Engineer application form, together with all the accompanying documents you should have the following ready to send to the IHE:

• Standard Route applicants will have a single folder that contains the IEng application form, the documents we require to support this and relevant supporting evidence you have referenced throughout your application.

• Individual Route (Further Learning and Personalised Report) applicants will have a single folder divided into two distinct sections. The first part contains your Further Learning Report or your Personalised Report. The second part contains the IEng application form, the documents we require to support this and relevant supporting evidence you have referenced throughout your application.

Make three hard copies of your submission, together with a digital copy on a CD, and keep the original for yourself. Send one copy and the CD to the IHE, and once we consider your submission to be complete, with no outstanding or missing information, we will make arrangements for two (or sometimes three, depending on the route of application) IHE Incorporated reviewers to assess your application. At this point we usually arrange a provisional date, time and place of your review interview. If you have any
disability, special access requirements or medical problems that might affect your performance, tell the IHE in advance and we will make appropriate arrangements. You will be provided with the address of your reviewers and will be expected to post (via Royal Mail) a hard copy of your submission to them. The reviewers will assess your submission in order to decide whether or not to call you for interview and in due course you will receive a summary of their assessment and, if they are satisfied you meet the requirements for Incorporated Engineer, the details of your interview. The reviewers may ask you to bring additional evidence to the interview but if they are not convinced that you have achieved the standards, you will be asked to provide further information and we will work with you during this period. Any identified weaknesses should be addressed in your interview presentation.

The format of your Incorporated review interview will take one of the following:

- Standard Route and Individual Route (Further Learning) applicants will present (approximately 20 minutes) one or two recent projects at an interview with your two reviewers. Your presentation and interview are to assess your competence against the Engineering Council UK-SPEC.

- Individual Route (Personalised Report) applicants will present (approximately 20 minutes) their Personalised Report project to two reviewers in order to satisfy them that you have met the requirements of the Engineering Council Learning Outcomes. There will then be a short break whilst your reviewers will decide whether or not you have satisfied the IEng Learning Outcomes. If you have, then you will be invited to present one or two recent projects at a second interview to assess your competence against the Engineering Council UK-SPEC. If you have not been able to satisfy the reviewers you have met the Engineering Council Learning Outcomes in your first interview this second interview cannot take place. You will be provided with feedback and guidance if you wish to make another application at a later date.

At the interview, the reviewers will ask you to present (approximately 20 minutes) the scheme(s) outlined in your summary using relevant documents to explain your decisions and your role. Expect to lead a discussion of about one hour during which the reviewers will test your knowledge, competence and judgement in order to satisfy themselves that you meet the EC standards. They may also ask about other projects and responsibilities described in your submission and discuss commitment issues under Competence and Commitment requirement E ‘Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment.’ We try to match candidates and reviewers in the same discipline and area of practice in the highways field to ensure a rigorous and fair interview.

After your interview, the reviewers will prepare a holistic assessment of your competence and commitment and submit a recommendation for the next IHE Membership and Qualifications Portfolio Group meeting. If you are successful, you will receive a letter within three weeks of the M&Q meeting notifying you of your election as an Incorporated Fellow. IHE will register you with the Engineering Council. If you do not succeed you will be given detailed reasons and advice in a letter but the IHE are always happy to provide further help.

If you wish to appeal, ask the IHE Qualifications Membership Manager about the procedures and reply within six weeks after receipt of your notification. You can appeal if there were unforeseen events or if you are dissatisfied with the way the review was conducted (Eg. If the format, procedure or structure of the review significantly compromised your ability to convince the reviewers that you meet the Institute’s published requirements). It is unlikely that appeals based around the reviewers’ assessment of engineering competence will be pursued. Advice is not available during an appeal.

An Incorporated Engineer professional review is a holistic assessment, hence if you wish to re-sit you will be required to undertake the whole process again. You should take care to ensure that your new submission addresses the original reviewer’s concerns. In the re-sit you will have to satisfy new reviewers (unaware of the previous review) that you can demonstrate all the competences, not just those that caused the original failure.
Section B

In this section we will guide you through completing the IHE IEng application form. The application form pulls together your personal details, aims to assess some of your skills and knowledge, as well as providing a checklist for your additional documents.

Guidance on all sections of the application form is detailed below.

1. The coversheet

Please complete the coversheet in section 1 at the front of the application form. This must be affixed to the front of your folder.

All submissions must be presented in a single ring binder or lever arch folder. You should use file dividers to enable us to easily identify the relevant parts of your evidence folder. These should cross reference with the relevant sections of this form.

Please note: Submissions presented in any other style of folder or binding, or without the coversheet attached will be returned to you.

2. Your details

Please complete all fields in this section.

3. Current employment details

Please complete all fields in this section.

4. Area of specialism

Please tick one of the listed categories of highway specialism that best describes the specialist area of your IEng submission. This information is essential for us to identify reviewers in your field that can assess your submission.

5. Route of application

Use this section to indicate if you hold the necessary qualifications to apply via the Standard Route or if you will be applying via the Individual Route.

6. Your CV

We require an up-to-date copy of your CV covering your employment, academic and training history. This CV should be no more than two pages in length.

7. Higher and further education

Please complete this section in chronological order as per the instructions on the application form.

8. Your qualifications

We require copies of your certificates for the further and higher education courses you have listed in section 7. These should be authenticated (signed and dated) by either your Line Manager, Proposer or Seconder who can confirm that these are true copies of the original certificates. Do not send us original certificates as these will not be returned to you.
9. Career history

Please complete this section in chronological order as per the instructions on the application form.

10. Your current job

We require a copy of your current Job Description to be attached with your application. Self employed applicants should produce a one page document describing your direct clients.

11. Mapping your organisation

You should supply the IHE with a clear organisation chart that identifies the structure of your organisation. This organigram should be of a hierarchical design and you should clearly highlight your own position on it. Self employed applicants do not need to complete this section.

12. Continuing Professional Development

Continuing Professional Development is the systematic maintaining, improving and broadening of your knowledge and skills and the development of personal qualities necessary for the execution of professional duties throughout your working life. Most employers require you to keep a personal CPD record and you can submit this as evidence in your folder. If your employer does not require this, a blank CPD record form can be downloaded from the members area of our website at https://members.theihe.org/page/MYCAREERPATH (log in required).

The IHE recommends you record your CPD using the Engineering Council Mycareerpath tool. If you use this, please export your CPD record and print it out. It can then be included in your evidence folder.

Please ensure you submit evidence of Continuing Professional Development and demonstrate how you intend to meet your obligations to CPD in the future by submitting a forward plan.

More information on CPD can be found in the members area of our website at https://members.theihe.org/page/MYCAREERPATH (log in required).

This should be essential reading before making your professional review submission.

13. Personal competence statements

Competence is the ability to carry out a task to the required standards. To achieve this, you will need to demonstrate that you have the level of knowledge and skills required to achieve IEng registration. Competence is developed by a combination of formal and informal learning, training and experience.

Incorporated Engineers maintain and manage applications of current and developing technology, and may undertake engineering design, development, manufacture, construction and operation. IEng’s are characterised by their ability to act as exponents of today’s technology through creativity and innovation and are variously engaged in technical and commercial management and possess effective interpersonal skills.

Incorporated Engineers should be able to demonstrate the following:

- The theoretical knowledge to solve problems in developed technologies using well proven analytical techniques.
- Successful application of their knowledge to deliver engineering projects or services using established technologies and methods.
- Responsibility for project and financial planning and management together with some responsibility for leading and developing other professional staff.
- Effective interpersonal skills in communicating technical matters.
- Commitment to professional engineering values.
To assess this and ensure the individual being registered is a competent engineer, the Engineering Council expect professional registrants to be competent in five broad areas:

A Knowledge and understanding
B Design and development of processes, systems, services and products
C Responsibility, management or leadership
D Communication and inter-personal skills
E Professional commitment

For Incorporated Engineers, the Engineering Council UK-SPEC of UK Standard for Professional Engineering Competence identifies 17 competencies that fit into the skill areas outlined above. The complete document can be found on the Engineering Council website www.engc.org.uk/UKSPEC In the accompanying application form, each of the sub competencies are grouped under the overall statement heading on a separate page. You will need to make sure you address all the competencies in your answer and provide evidence to support your answers. You will be expected to have a knowledge and understanding of each role (A1, A2 etc) and to be competent overall in each broad statement (A, B, C, D and E).

List on the Professional Competence section of the application form, and include in your submission, relevant documentary evidence you have produced which illustrates achievement of each Statement. Aim to submit documents only from a few schemes overall allowing you to refer to the same ones across several statements, choosing documents to illustrate and substantiate the work described on the application form. Put yourself in the assessors’ shoes and select your strongest evidence and it is sometimes useful when looking for evidence, to ask ‘What can I show someone to convince them that I can do this Statement?’. Remember to seek clearance from your employer for any confidential or commercially sensitive work that you are including and warn the IHE if this is the case. All documents should be your own work, if not explain your role.

Your formal educational qualifications, Further Learning Report or Personalised Report demonstrate the necessary knowledge that underpins each of the five competences. Therefore, you should aim to complete each question using approximately 400 words per competency with sufficient evidence to demonstrate achievement of the sub competency statements. The ability to analyse and summarise is part of the communication skills requirement, if we need more information, we will ask you for it. There is no problem in referring to the same scheme or experience in more than one statement, but ensure you explain which aspects are relevant in each case and don’t repeat descriptions. The following pages outline what information is required and provide some IHE guidance alongside a list of typical documents you could select to illustrate your experience.
A. Use a combination of general and specialist engineering knowledge and understanding to apply existing and emerging technology.

<table>
<thead>
<tr>
<th>Engineering Council Statement of Competence</th>
<th>IHE Guidance</th>
<th>Examples of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A1. Maintain and extend a sound theoretical approach to the application of technology in engineering practice.</strong>&lt;br&gt;This could include an ability to:&lt;br&gt;• Identify the limits of own personal knowledge and skills.&lt;br&gt;• Strive to extend own technological capability.&lt;br&gt;• Broaden and deepen own knowledge base through new applications and techniques.&lt;br&gt;<strong>In your submission, show you:</strong>&lt;br&gt;• Have extended your knowledge over time, learning and developing your knowledge continually.&lt;br&gt;• Critically evaluate your learning.&lt;br&gt;• Know, understand and apply current relevant legislation, specifications, codes of practice, trade publications, software and guidance by referring to them in your submission.&lt;br&gt;• Give appropriate advice.&lt;br&gt;• Learn and apply new practice.&lt;br&gt;<strong>Examples of evidence:</strong>&lt;br&gt;• Client briefs.&lt;br&gt;• Inspection reports.&lt;br&gt;• Feasibility reports.&lt;br&gt;• Commission reports.&lt;br&gt;• Design option appraisals with costings.&lt;br&gt;• Interpretation and analysis and application of survey results or other data in reaching a design solution.&lt;br&gt;• Use of databases.&lt;br&gt;• Transport policies, strategies and plans, (LTPs, Local frameworks)&lt;br&gt;• Transport assessments, Travel plans.&lt;br&gt;• Safety audit reports.&lt;br&gt;• Test results and interpretation.&lt;br&gt;• Failure investigations.&lt;br&gt;• Use of relevant computer software.&lt;br&gt;• Appeals statements.&lt;br&gt;• Cost benefit analyses.&lt;br&gt;• Value engineering exercises.&lt;br&gt;• Correspondence demonstrating engineering knowledge.</td>
<td></td>
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</tbody>
</table>
| **A2. Use a sound evidence based approach to problem solving and contribute to continuous improvement.**<br>This could include an ability to:<br>• Use market intelligence and knowledge of technological developments to promote and improve the effectiveness of engineering products, systems and services.<br>• Contribute to the evaluation and development of continuous improvement systems.<br>• Apply knowledge and experience to investigate and solve problems arising during engineering tasks and implement corrective action.<br>**In your submission, show you:**<br>• Manage/contribute to market research, products and process research and development.<br>• Investigate, identify and agree client, user and community requirements.<br>• Conduct statistically sound appraisal of data and evaluate.<br>• Apply engineering principles to solve client needs.<br>• Are logical in your approach.<br>• Critically evaluate evidence from best practice to improve effectiveness.<br>• Recommend or apply appropriate departures from standards based on sound evidence.<br>• Know the “why” as well as “how” that underpins relevant engineering practice.<br>• Use feedback from previous schemes to improve your next ones.<br>**Examples of evidence:**<br>• Client briefs.<br>• Inspection reports.<br>• Feasibility reports.<br>• Commission reports.<br>• Design option appraisals with costings.<br>• Interpretation and analysis and application of survey results or other data in reaching a design solution.<br>• Use of databases.<br>• Transport policies, strategies and plans, (LTPs, Local frameworks)<br>• Transport assessments, Travel plans.<br>• Safety audit reports.<br>• Test results and interpretation.<br>• Failure investigations.<br>• Use of relevant computer software.<br>• Appeals statements.<br>• Cost benefit analyses.<br>• Value engineering exercises.<br>• Correspondence demonstrating engineering knowledge.
B. Apply appropriate theoretical and practical methods to design, develop, manufacture, construct, commission, operate, maintain, decommission and re-cycle engineering processes, systems, services and products.

<table>
<thead>
<tr>
<th>Engineering Council Statement of Competence</th>
<th>IHE Guidance</th>
<th>Examples of evidence</th>
</tr>
</thead>
</table>
| B1. Identify, review and select techniques, procedures and methods to undertake engineering tasks. | **In your submission, show you:**  
- Contributed to the marketing of and tendering for new engineering products, process and systems.  
- Contributed to the specification and procurement of new engineering products, processes and systems.  
- Conduct surveys.  
- Investigate relevant factors and variables.  
- Identify and evaluate options.  
- Use and interpret good practice guides etc.  
- Develop and test options.  
- Develop decommissioning processes.  
- Recommend optimum solutions which contribute to improved social, economic and environmental outcomes.  
- Can respond to unforeseen circumstances.  
- Set targets and draft programmes and action plans.  
- Schedule activities.  |  
- Documents indicating your responsibilities.  
- Site investigation and condition reports.  
- Traffic survey and data reports.  
- Accident data and analysis reports.  
- Road user or safety audits.  
- Specifications you drew up.  
- Preliminary designs and drawings.  
- Detailed design drawings you prepared or initiated.  
- Calculations.  
- Alternative costings.  
- Test reports.  
- Design mixes.  
- As built drawings.  
- Site type approvals and acceptance tests.  
- Writing of, or interpretation of, design guides and safety statements.  
- Technical advice statements or reports.  
- Instructions on monitoring performance.  
- Maintenance manuals and maintenance schedules.  
- Cost benefit analyses.  
- Tender or appraisal reports you prepared.  
- Section 38 agreements.  
- Assessment reports.  
- Evaluations of materials or processes.  
- Before and after studies (Eg photographs).  
- Tender appraisal reports.  
- Final account comparisons.  
- Post-project evaluations.  
- Monitoring utilities and evaluation of schemes. |
| B2. Contribute to the design and development of engineering solutions. | **In your submission, show you:**  
- Contributed to the identification and specification of design and development requirements for engineering products, processes, systems and services.  
- Identify operational risks and evaluate possible engineering solutions, taking account of cost, quality, safety, reliability, appearance, fitness for purpose, security, intellectual property (IP) constraints and opportunities, and environmental impact.  
- Collect and analyse results.  
- Carry out necessary tests.  |  
- Conduct surveys.  
- Investigate relevant factors and variables.  
- Identify, evaluate and test options.  
- Work in design teams.  
- Manage /contribute to value engineering and whole life costings.  
- Use and interpret national and local guides etc.  
- Draft specifications.  
- Identify resources and cost of options.  
- Can respond to unforeseen circumstances.  
- Be aware of IP constraints and opportunities. |
| B3. Implement design solutions and contribute to their evaluation. | **In your submission, show you:**  
- Follow the design process from start to finish.  
- Operate and maintain processes, systems etc.  
- Contribute to reports on the evaluation of the effectiveness of the designs, including risk, safety and life cycle considerations.  
- Contribute to product improvement.  
- Contribute to determining critical success factors.  
- Interpret and analyse performance.  |  
- Secure the resources required for implementation.  
- Implement design solutions, taking account of critical constraints, including due concern for safety and sustainability.  
- Identify problems during implementation and take corrective action.  
- Contribute to recommendations for improvement and actively learn from feedback on results.  |
### C. Provide technical and commercial management.

<table>
<thead>
<tr>
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<th>Examples of evidence</th>
</tr>
</thead>
</table>
| C1. Plan for effective project implementation. | **In your submission, show you:**  
• Manage/contribute to project planning activities.  
• Produce and implement procurement plans.  
• Contribute to project risk assessment.  
• Collaborate with key stakeholders.  
• Plan programmes and the delivery of tasks, schemes etc.  
• Identify resources and costs.  
• Schedule activities.  
• Prepare and agree contracts/work orders.  
• Monitor and evaluate after implementation. | **Work instructions.**  
• Non standard tenders, manuals and guides written by you.  
• Progress meetings and action plans.  
• Works programmes.  
• Best practices audits.  
• Statutory undertaker enquiries, orders and co-ordination plans.  
• Works instructions, site diaries.  
• Exchanges of letters.  
• Scheme briefs and monitoring reports.  
• Minutes of meetings showing actions by you.  
• Budget control cash flow analyses.  
• Schedule of tasks with the delivery monitored.  
• Audit reports.  
• Preparation or evaluation of estimates, bids and tenders.  
• Costings.  
• Bills of quantities.  
• Monitoring reports.  
• Estimates.  
• Planning gain agreements.  
• Partnering arrangements showing your role.  
• Monitoring reports.  
• Quality system reviews.  
• Manuals you wrote.  
• Materials laboratory reports.  
• Applied Best Value PIs.  
• Appraisal report.  
• Works programmes.  
• Project or budget reports.  
• Works instructions. |
| C2. Manage tasks, people and resources to plan and budget. | **In your submission, show you:**  
• Manage/contribute to project operations.  
• Manage the balance between quality, costs and time.  
• Manage contingency processes.  
• Contribute to the management of project funding, payments and recovery.  
• Satisfy legal and statutory obligations.  
• Manage tasks within identified financial, commercial and regulatory constraints.  
• Identify variations from quality standards, programmes and budgets, and take corrective action.  
• Evaluate performance and recommend improvements. | **Work instructions.**  
• Non standard tenders, manuals and guides written by you.  
• Progress meetings and action plans.  
• Works programmes.  
• Best practices audits.  
• Statutory undertaker enquiries, orders and co-ordination plans.  
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• Materials laboratory reports.  
• Applied Best Value PIs.  
• Appraisal report.  
• Works programmes.  
• Project or budget reports.  
• Works instructions. |
| C3. Manage teams and develop staff to meet changing technical and managerial needs. | **In your submission, show you:**  
• Manage yourself.  
• Gather evidence from colleagues of the management, assessment and feedback that you have provided.  
• Plan activities and determine work methods to achieve objectives.  
• Manage teams.  
• Contribute to/carry out staff appraisals.  
• Plan/contribute to the training and development of staff.  
• Carry out/contribute to disciplinary procedures.  
• Note:  
“Teams” may be your staff or all those concerned with delivering your project, including the public, clients, consultants and contractors. | **Work instructions.**  
• Non standard tenders, manuals and guides written by you.  
• Progress meetings and action plans.  
• Works programmes.  
• Best practices audits.  
• Statutory undertaker enquiries, orders and co-ordination plans.  
• Works instructions, site diaries.  
• Exchanges of letters.  
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• Estimates.  
• Planning gain agreements.  
• Partnering arrangements showing your role.  
• Monitoring reports.  
• Quality system reviews.  
• Manuals you wrote.  
• Materials laboratory reports.  
• Applied Best Value PIs.  
• Appraisal report.  
• Works programmes.  
• Project or budget reports.  
• Works instructions. |
| C4. Manage continuous quality improvement. | **In your submission, show you:**  
• Promote quality.  
• Manage/contribute to best practice methods of continuous improvement, eg ISO 9000, EFQM, balanced scorecard.  
• Identify, implement and evaluate changes to meet quality objectives and continuous improvement.  
• Carry out/contribute to quality audits.  
• Monitor, maintain and improve delivery. | **Work instructions.**  
• Non standard tenders, manuals and guides written by you.  
• Progress meetings and action plans.  
• Works programmes.  
• Best practices audits.  
• Statutory undertaker enquiries, orders and co-ordination plans.  
• Works instructions, site diaries.  
• Exchanges of letters.  
• Scheme briefs and monitoring reports.  
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• Estimates.  
• Planning gain agreements.  
• Partnering arrangements showing your role.  
• Monitoring reports.  
• Quality system reviews.  
• Manuals you wrote.  
• Materials laboratory reports.  
• Applied Best Value PIs.  
• Appraisal report.  
• Works programmes.  
• Project or budget reports.  
• Works instructions. |
## D. Demonstrate effective interpersonal skills.

<table>
<thead>
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<th>Examples of evidence</th>
</tr>
</thead>
</table>
| D1. Communicate in English with others at all levels.  
This could include an ability to:  
• Contribute to, chair and record meetings and discussions.  
• Prepare communications, documents and reports on technical matters.  
• Exchange information and provide advice to technical and non-technical colleagues. | **In your submission, show you:**  
• Have written reports, letters and emails.  
• Produced and used drawings, specifications, and working papers in a variety of formats.  
• Establish and maintain effective working relationships with colleagues, clients and others.  
• Responded to correspondence efficiently.  
• Engaged and interacted with professional networks. | • Work or site instructions.  
• Correspondence conducted by you.  
• Internal documents or briefing materials.  
• Minutes which show your participation.  
• Committee or cabinet reports you wrote.  
• Advice and recommendations you made.  
• Interpretative reports.  
• “All levels” means colleagues, subordinates, line managers, clients, consultants, utilities, developers, contractors, elected members, interest groups, the public – as applies to your job.  
• “Teams” may be your staff or all those concerned with delivering your project, including the public, clients, consultants and contractors. |

| D2. Present and discuss proposals.  
This could include an ability to:  
• Prepare and deliver appropriate presentations.  
• Manage debates with audiences.  
• Feed the results back to improve the proposals.  
• Contribute to the awareness of risk. | **In your submission, show you:**  
• Have carried out presentations, kept records of discussions and their outcomes.  
• Manage information.  
• Prepared your reports in a professional manner.  
• Participate in and lead meetings. | • Public consultations you conducted.  
• Public inquiry evidence you prepared.  
• Public exhibitions you prepared or participated in.  
• Appropriate presentation of data.  
• Impact and environmental assessments.  
• Task planning and organisation documents.  
• Training and development plans.  
• “All levels” means colleagues, subordinates, line managers, clients, consultants, utilities, developers, contractors, elected members, interest groups, the public – as applies to your job.  
• “Teams” may be your staff or all those concerned with delivering your project, including the public, clients, consultants and contractors. |

| D3. Demonstrate personal and social skills.  
This could include an ability to:  
• Know and manage own emotions, strengths and weaknesses.  
• Be aware of the needs and concerns of others, especially where related to diversity and equality.  
• Be confident and flexible in dealing with new and changing interpersonal situations.  
• Identify, agree and work towards collective goals.  
• Create, maintain and enhance productive working relationships, and resolve conflicts. | **In your submission, show you:**  
• Taken records of meetings.  
• Indicate evidence from colleagues of your personal and social skills.  
• Contributed to productive and effective working relationships.  
• Have applied diversity and discrimination legislation.  
• Give clear and accurate instructions.  
• Mentor colleagues.  
• Assess the performance of others.  
• Can resolve conflicts. | • “All levels” means colleagues, subordinates, line managers, clients, consultants, utilities, developers, contractors, elected members, interest groups, the public – as applies to your job.  
• “Teams” may be your staff or all those concerned with delivering your project, including the public, clients, consultants and contractors.  
• Appropriate voluntary activities may provide evidence for D1, D2 and D3. |
### E. Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment.

<table>
<thead>
<tr>
<th>Engineering Council Statement of Competence</th>
<th>IHE Guidance</th>
<th>Examples of evidence</th>
</tr>
</thead>
</table>
| **E1. Comply with relevant codes of conduct.**

This includes an ability to:
- Comply with the rules of professional conduct of own institution.
- Manage work within all relevant legislation and regulatory frameworks, including social and employment legislation.

**In your submission, show you:**
- Have contributed to the affairs of the IHE.
- Know your organisation’s goals and ethos (refer to its conduct statements).
- Behave appropriately and professionally.
- Know the purpose of the IHE and its codes of conduct.
- Can resolve a conflict of interest or know the procedures to do so.
- Know the duty of an engineer under EC and IHE codes and rules of conduct.
- Participate in IHE activities.
- Work with a variety of conditions of contract.

**Note:**
- Include an example of where ethical behaviour has been an issue at work or of how a conflict of interest was resolved, or the procedures for doing so.
- Refer to your company’s standing orders, equal opportunities and conduct statements in your submission but do not include them.
- At your interview, expect to discuss the profession’s values, your aspirations and practical ethical issues arising from work.

**E2. Manage and apply safe systems of work.**

This could include an ability to:
- Identify and take responsibility for own obligations for health, safety and welfare issues.
- Manage systems that satisfy health, safety and welfare requirements.
- Develop and implement appropriate hazard identification and risk management systems and culture.
- Manage, evaluate and improve these systems.
- Apply a sound knowledge of health and safety legislation.

**In your submission, show you:**
- Undertake formal health and safety training.
- Work with health and safety legislation and best practice.
- In the UK, examples include HASAW 1974, CDM regulations, OHSAS 18001:2007, company, transport and road safety policies.
- Carry out safety audits and work safely by identifying and minimizing hazards.
- Analyse, assess and control risk.
- Accept responsibility for your own and others’ safety.
- Are aware of emergency measures and procedures.

**Note:**
- Include in your submission, evidence of CPD days on health and safety (including road safety) in the last two years that show you are aware of the latest requirements.
- Risk Assessments.
- Application of CDM regulations, Chapter 8, Codes etc.
- COSHH assessments and method statements.
- Environmental or social impact assessments.
- Reports recommending improvements in safety or the environment.
- Safety audits.
- Pre-tender health and safety plans.
- Reports of consultations with conservation and local groups.
- Environmental assessments.
- Waste disposal/recycling in your projects.
- LTPs, travel plans or green transport initiatives you wrote or to which you made a significant identifiable contribution.
- A structured Professional Development Plan.
- Copies of recent annual appraisals.
- A structured professional appraisal of ethical matters.
### E3. Undertake engineering activities in a way that contributes to sustainable development.

This could include an ability to:
- Operate and act responsibly, taking account of the need to progress environmental, social and economic outcomes simultaneously.
- Provide products and services which maintain and enhance the quality of the environment and community, and meet financial objectives.
- Understand and encourage stakeholder involvement in sustainable development.
- Use resources efficiently and effectively.

**In your submission, show you:**
- Carried out/contributed to environmental impact assessments.
- Carried out/contributed to environmental risk assessments.
- Managed best practice environmental management systems, eg ISO 14000.
- Managed best practice risk assessment systems eg ISO 31000.
- Work within environmental legislation.
- Adopt sustainable practices.
- Contribute to social, economic and environmental outcomes.

**Note:**
Include in your submission, evidence of appropriate CPD on Sustainability issues in the last two years indicating that you are aware of latest rules, regulations and requirements - Guidance on Sustainability is published by the EC and IHE.

### E4. Carry out and record CPD necessary to maintain and enhance competence in own area of practice including:

- Undertake reviews of own development needs.
- Plan how to meet personal and organisational objectives.
- Carry out planned (and unplanned) CPD activities.
- Maintain evidence of competence development.
- Evaluate CPD outcomes against any plans made.
- Assist others with their own CPD.

**In your submission, show you:**
- Keep up to date with national and international engineering issues.
- Maintain CPD plans and records.
- Have involvement with the affairs of the IHE.
- Evidence of your development through on-the-job learning, private study, in-house courses, external courses and conferences.
- Set goals to achieve personal and organisational objectives.
- Undertake professional development to enhance competence.
- Prepare and maintain a professional action plan.

**Note:**
- Include in your submission a record, over the last two years, showing evidence of structured development (which can include reading and research) showing that you are aware of up to date and latest knowledge. A list of 'CPD days' is required, of off the job education and training in the last two years showing that you are aware of up to date and latest knowledge.
- At your interview, expect to discuss your learning experiences to date.

### E5. Exercise responsibilities in an ethical manner.

**In your submission:**
- Give an example of where you have applied ethical principles as described in EC Ethical Principles.
- Give an example of where you have applied/upheld ethical principles as defined by your organisation or company, which may be in its company or brand values.

**Note:**
Include in your submission, a record over at least the last two years, showing structured development to indicate that you have maintained knowledge of ethical principles.
14. Document matrix

Please map how your evidence documents meet the Competency Standards in a document matrix. An example of this would be:

<table>
<thead>
<tr>
<th>Doc No.</th>
<th>Doc Name</th>
<th>A1</th>
<th>A2</th>
<th>B1</th>
<th>B2</th>
<th>B3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Drawing of roundabout design</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>CAD drawing of approach junction</td>
<td>✔</td>
<td></td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
</tbody>
</table>

15. Presentation synopsis

Use this page to provide a synopsis, (briefly) describing one or two projects you will discuss at your review interview to demonstrate you meet the five broad IEng requirements (Statement headings A, B, C, D and E) of UK-SPEC.

You should show that you:
- Solve problems from first principles.
- Exercise independent technical judgement.
- Manage safety and risk.
- Understand financial, statutory and commercial issues.
- Manage schemes and resources.
- Are self motivated and a team player.
- Can communicate concepts and ideas to technical and non-technical audiences.
- Are committed to the profession’s code of conduct.
- Are committed to your personal and professional development

16. Statement by applicant

You must sign and date the declaration in section 16. We will not accept any application without this declaration signed.

17. Completing your submission

Please follow the guidance in the application form regarding our required format for IEng submissions.

All submissions must be presented in a single ring binder or lever arch folder. Any other style of folder or binding, or without the coversheet affixed will be returned to you.

Please send your complete submission and this form to:
Membership, Institute of Highway Engineers, Floor 32–34, 286 Euston Road, London NW1 3DP.

Please note: We reserve the right to reject and return any submission that does not include all of the documents and attachments marked on the checklist at the back of this form, or with sections of this application form incomplete or left blank unless not required.

18. Electronic copy of your submission

Please follow the guidance in the application form and supply us with a digital copy of your IEng folder and any documents you have submitted on a writeable CD.
19. Employer proposal statement

Section 19 details the employer proposal statement we require from you. We cannot pass your submission to a reviewer without an employer proposal statement. Self-employed applicants should ask a recent Client to complete this section.

20. Proposer and seconder

Please ask your proposer and seconder to complete all fields in this section.

21. Payment form

The fee required as part of paying for your IEng application comprises of (2019 rates):

IHE IEng professional review fee: £250.00 (Standard Route) £295.00 (Individual Route)

Engineering Council IEng registration entry fee (collected on their behalf by the IHE): £42.80

Please check our website for up-to-date fee information.

An additional upgrade to your membership fee might also be required. If you are currently a Member you will be required to pay the difference between your current annual membership fee and the annual fee for IHE Fellow grade of £163.00.

If you are a member of the Institute of Traffic Accident Investigators, an additional £65.00 administration fee is required to process your application.

22. Checklist

This section provides you with an opportunity to ensure you have included all the applicable documents and paperwork we have asked for. It also helps us to ensure we have received all of your submission when we process your application.