

IHE Professional Certificate in Traffic Sign Design



Department for
Transport

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This document explains

- How you benefit from an IHE Professional Certificate
- How to apply
- The purpose of the certificate interview
- The method of assessment
- The three levels of competence
- The eight Statements of Competence

How you benefit

The IHE Professional Certificate in Traffic Sign Design provides

- Tangible evidence to your employer and future employers of your proven competence in signing
- Independent assessment of your knowledge and performance
- Access to EngTech registration at Foundation level marking you out as a professional

For authorities and consultants the benefits include

- Tested competence against DfT- endorsed standards
- Competitive advantages as an employer of provenly competent staff

The certificate is open to all. You do not need to be, or to become, a member of IHE nor do you have to complete a training course or have particular academic qualifications. You *are* required to prove that you meet the standards of competence.

The certificate is available at three levels. **Foundation level** is designed for all traffic management staff and engineers for whom sign design is part of their responsibilities – it's a basic broad testament of your knowledge and attributes. **Practitioner** is for the signs specialist and **Expert** denotes a senior practitioner with policy responsibilities. See page six.

You apply by submitting an Experience Report and compiling a portfolio of your work matched to the Traffic Sign Design Standards of Competence and present your work at an interview with two assessors. You will need to reach the required standard in 3 Core Units (Statutory requirements, Policy and General Guidance, Use of Traffic Signs and Design of Traffic Signs) at your chosen level and can choose from the Optional Units (Road markings and road studs – TSM Chapter 5, Temporary Traffic Management Signs – TSM Chapter 8, Sign design software, Sign Manufacturing and Specification, Site installation and contracts) to gain the required remaining marks - as explained on page 5.

There is an assessment fee of £65.00 for IHE members, £90.00 for non members.

With the IHE Professional Certificate you will be offered membership of IHE if you have either a NC or higher academic qualification or sufficient years of experience.

You may also be able to register as an Engineering Technician. Ask IHE to advise you. Normally you will need to ensure the 13 Engineering Technician Statements of Competence (*Document ET3*) are covered in your Report and Portfolio. Statement A, B and D will probably already be evidenced sufficiently by your Signs work.

For IEng and CEng you will need to take a separate Professional Review.

Need Help?

If you are unsure, please contact our Membership Manager on 020 74367487 or email membership@theihe.org.



How to apply

Step One

- Read the signing competence standards below.
You are seeking to show the assessors that you know and apply the principles listed.
- Make some notes about relevant recent jobs.
- Find reports, designs, correspondence etc. associated with these schemes.

Step Two

Open a folder and put into it:

- A completed IHE Application form(TSD 9)
- Copies of your academic certificates (post-school)
- Your CV (making sure it explains your various jobs)
- Your job description and organisation chart with your post highlighted

Step Three

Write a chronological description of recent work which shows you cover the competence statements. Aim for 1000-2000 words. Describe clearly the schemes and your personal input and responsibilities. Mention the size and the complexity of policy aspects of the schemes. For the higher levels, say more about the recent schemes where you have exercised greater responsibility. Explain what you did and why by reference to relevant regulations, standards, policy and good practice guidance. Include photos and layouts to assist your explanation. Mention budgets. We want to know what you did and why – use “I” not “we”.

If you prefer, rather than writing a chronological description, describe your experience under each statement heading.

Be succinct. If the assessors want more information we will ask you for this before your interview.

Step Four

Cross reference the Step 3 Experience Report to the Core and selected Optional Statements in the right-hand margin.

If you are applying for EngTech, additionally cross reference your report to the 13 Statements in *Document ET3*.

Step Five

Choose sufficient documents produced by you to cover each of the Statements. List the documents in a matrix against the Statements list.

Tell us which documents are your own work or explain what you contributed. Do not include any extracts from manuals etc.

If you are applying for EngTech, choose additional documents as necessary to cover the 13 Statements.

Step Six

Put all the papers from Step Two with your Experience Report, Documents and Matrix into a folder with a Contents List.

Ask your line Manager to review and sign off your folder.

Make 3 copies. Keep the originals and send one copy to IHE by the closing date.

Style Guide for Written Work

In preparing your assignments, portfolio or any report, it is good practice to:

- word process the text using one and a half line spacing on one side of A4
- leave a line between paragraphs
- use headings and subheadings
- number the sections, paragraphs and pages
- number any photos, tables in the text
- number any attachments and prepare a list of the attachments
- get the assignments bound or use a ring binder
- reduce plans if possible or fold them into a plastic wallet
- include photos, sketches or plans to help to explain the site
- justify your reasoning, comments and recommendations by reference to national and local standards
- make clear the extent of your responsibilities

Make sure your submission is easy to handle and to find your way around.

Use good English

- Be precise
- Check your grammar and spelling: ask colleagues to look over the text
- Write short sentences
- Use plain English words

Ask a colleague to proof read the report for technical accuracy.

What happens at IHE

IHE will acknowledge receipt of your application, and give you contact details for your assessors who will not be from the DfT.

Send your submission to the two assessors by the Post Office.

IHE will tell everyone the time and date of the interview and give you details of the venue.

Afterwards, the assessors make a recommendation to the IHE Traffic Signs Steering Group and IHE's Membership & Qualifications Committee.

The purpose of the interview

The assessors want to reassure themselves that your knowledge covers that listed in the Competence Standards. They will ask you to present your work and will ask questions about your experience and documents to satisfy themselves that you meet requirements.

The assessors will set you at your ease. The interview is not an examination: it is a discussion with senior colleagues. No one interview is the same as another. The assessors have their own styles but their conduct must be fair and proper. Their assessment will be based entirely on the work submitted and your performance on the day.

Beforehand,

- Identify significant or interesting aspects of your work to talk about
- Practice talking about your work
- Think about questions you could be asked and your answers
- Refresh your knowledge of the Regulations and Traffic Signs Manual

On the day,

Your submission will have been read by the assessors who will ask you to talk them through your report: expand and explain, don't repeat the report.

They will ask you questions to test your knowledge and competence to satisfy themselves that you meet the Statements of Competence.

Be prepared to explain what you did and why. A good approach is to practice talking through a few key schemes from your submission to bring out the extent of your experience.

Remember to

- listen to the questions
- say what you mean, logically and clearly
- take comments objectively, not as a personal slight
- stop digging if you get into a hole: don't waffle.

Afterwards

The assessors' recommendation is considered by the IHE Traffic Signs Steering Group.

IHE will write to you after the next Membership Committee with your results and electing you a member of the Institute normally within 4 to 6 weeks. We will also offer to register you as an Engineering Technician, if appropriate. Your certificate will list the subjects and level you passed in.

Method of Assessment: Demonstration of Competence

To gain a Professional Certificate in Traffic Sign Design you must pass the Core competences at your chosen level and gain a set number of marks from at least two of the five specialist categories.

Core Categories

You must demonstrate your competence in all three Core Categories at your chosen level.

Marking the Specialist Categories

Each of the 5 Specialist Categories (4-8) is awarded 1, 2, 3 or 4 Marks depending on the level of competence:

Basic Awareness = 1 Mark

Foundation level = 2 Marks

Practitioner level = 3 Marks

Expert level = 4 Marks

To gain a Professional Certificate you need to achieve, from at least two Competences:

4 Marks for Foundation level

6 Marks for Practitioner level

8 Marks for Expert level.



The assessors will award marks based on the competence demonstrated in your report and at the interview.

Your submission level (Foundation, Practitioner or Expert) for each competence must be specified in a matrix grid with reference to supporting documentation.

Levels of Certification

The IHE Professional Certificate in Traffic Sign Design is awarded at three levels

Foundation

At Foundation level candidates provide support on the design of traffic signing systems and production of proposals for implementation. You would be expected to have a knowledge and understanding of all the Core competences at Foundation Level and know where to access the available advice and legislation. You may have a detailed knowledge in other specialist categories.

Practitioner

Practitioner candidates are able to lead the preparation, design or implementation of traffic signing Core competences at Practitioner Level and may be a specialist in a number of areas. You would be expected to take responsibility for the accuracy and compliance of final designs.

Expert

Candidates will have a comprehensive knowledge of all aspects of traffic signing system design, along with the ability to advise on detailed requirements. You would be expected to assess the capability of other traffic signs designers and provide mentor training. You contribute at senior level (locally or at national level) expert advice, prepare guidance documents or carry out formal training in signing practice.

Certificates record the specialisms and pass levels

The IHE Professional Certificate accredits your competence, marks you out as a qualified professional and is backed by senior DC professionals – your employers.

ADVANCE YOUR CAREER



1. Statutory requirements, policy and general guidance (CORE)

<p>Know local and national traffic sign policies.</p> <p>Understand statutory requirements through the Traffic Signs Regulations and General Directions (TSRGD).</p> <p>Understand the roles of central government (DfT), Highways Agency and local highway / Traffic Authorities in traffic signing.</p>	<p>Able to use the advice in the Traffic Signs Manual and other guidance documentation.</p>	<p>Experience of using all the legislation regarding the provision of traffic signs and road markings.</p> <p>Experience of best practice including environmental issues and traffic management.</p> <p>Experience in using the relevant guidance including the Traffic Signs Manual, other DfT guidance and working drawings.</p> <p>Able to interpret the content of the advice in unusual situations.</p>	<p>Contribute (at senior level locally or at national level) expert advice.</p> <p>Prepare guidance documents or carry out formal training in signing practice.</p> <p>Able to prepare reports on signing strategy for non specialists or elected representatives.</p> <p>Have a detailed knowledge of the available advice.</p> <p>Instruct and mentor signing practitioners on statutory and policy issues.</p>
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2. Use of Traffic Signs (CORE)

<p>Know the appropriate sign type to use and where detailed advice is available.</p> <p>Know the overall contents of all Traffic Signs Manual Chapters.</p>	<p>Attend professional seminars or courses to improve signing design skills.</p> <p>Able to use the content of the TSRGD correctly in the selection of sign type and appropriateness.</p>	<p>Experience in the design of traffic signing systems using appropriate advice, including:</p> <ul style="list-style-type: none"> - warning and regulatory - direction - information - speed limits - pedestrian & cyclists - variable message signing - tourist - temporary <p>Experience of implementing Traffic Regulation Order signing including one-way streets, Controlled Parking</p>	<p>Contribute (at senior level locally or at national level) expert advice.</p> <p>Prepare guidance documents or carry out formal training in signing practice.</p> <p>Know traffic regulation orders and physical constraint measures and be able to influence their use.</p> <p>Detailed understanding of the requirements for the location of traffic signs.</p> <p>Instruct and mentor signing practitioners in the use of traffic signs.</p>
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**TRAFFIC SIGN
DESIGN**

**1, 2 and 3 are
Compulsory**

COMPETENCE STANDARD

FOUNDATION LEVEL

PRACTITIONER LEVEL

EXPERT LEVEL

Zones and waiting restrictions etc.
Experience in the preparation and design or revision of traffic signing strategies, including networks, destinations, routing, strategies and cross boundary issues.

3. Design of Traffic Signs (CORE)

<p>Know the advice provided in Chapter 7 and how it is used for the design of sign faces.</p> <p>Know the basic principles of sign legibility characteristics, determining citing distances, sign size, 'x' heights and sign conspicuity.</p> <p>Know the statutory requirements for the illumination of traffic signs.</p> <p>Know about sign reflectivity and materials.</p>	<p>Design sign faces in accordance with Chapter 7.</p>	<p>Experience in the use of design advice and content of Traffic Signs Manual – Chapter 7.</p> <p>Use the advice for all other worded signs and non-standard signs.</p> <p>Experience in preparing sign face layouts in accordance with design advice, including Chapter 7.</p> <p>Experience of the authorisation process of non-prescribed signs.</p> <p>Know the requirements of the use of overhead sign mounting and gantries.</p>	<p>Contribute (at senior level locally or at national level) expert advice, prepare guidance documents or carry out formal training in signing practice.</p> <p>Able to review traffic signs designs produced by practitioners to confirm conformity and design advice and regulations and advise on good practice.</p> <p>Able to advise designers on sign face layout for unusual situations.</p> <p>Instruct and mentor signing practitioners in the design of traffic signs.</p>
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Choose from these five Options Units.

4. Road markings and road studs – TSM Chapter 5 (OPTION)

<p>Aware of the available advice on the layout of road traffic markings in Traffic Signs Manual – Chapter 5.</p> <p>Aware of HA guidance for motorways and trunk roads - if applicable.</p> <p>Know the statutory requirements in respect of road studs and markings.</p> <p>Know the road markings associated with waiting restrictions and other traffic regulation orders.</p>	<p>Able to interpret the advice in Traffic Signs Manual – Chapter 5 and use the guidance in junction design.</p>	<p>Experience in the use of the Traffic Signs Manual – Chapter 5 guidance in the design of road marking layouts.</p> <p>Understand the traffic sign requirements to support the road marking layouts, in particular junction layouts and waiting restrictions.</p>	<p>Contribute (at senior level locally or at national level) expert advice, prepare guidance documents or carry out formal training in road marking practice.</p> <p>Detailed understanding of the road markings advice and regulations.</p> <p>Detailed knowledge of the materials used for road markings and road studs.</p>
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5. Temporary Traffic Management Signs – TSM Chapter 8 (OPTION)

<p>Aware of the guidance in Traffic Signs Manual – Chapter 8 and other advice.</p> <p>Aware of the health and safety issues at road work sites.</p> <p>Aware of CDM regulations.</p> <p>Aware of the provisions for temporary traffic management signs within the TSRGD.</p>	<p>Know the application of the Traffic Signs Manual – Chapter 8 guidance.</p> <p>Know the Traffic Regulation Orders required supporting temporary traffic management measures.</p> <p>Know the provisions and constraints for temporary traffic management signs in TSRGD.</p>	<p>Understand the signing requirements for temporary traffic signal installations.</p> <p>Experience of implementing temporary traffic signing for road works.</p> <p>Experience of developing of temporary traffic sign design layouts, to facilitate maintenance activities or temporary situations.</p> <p>Able to apply the sign face design rules in Traffic Signs Manual – Chapter 7 and produce the working drawings for temporary</p>	<p>Contribute (at senior level locally or at national level) expert advice, prepare guidance documents or carry out formal training in temporary signing practice.</p> <p>Applies detailed understanding of signing requirements to traffic management schemes.</p> <p>Able to advise on sign layout for unusual situations.</p>
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TRAFFIC SIGN DESIGN

1, 2 and 3 are Compulsory

COMPETENCE STANDARD

FOUNDATION LEVEL

PRACTITIONER LEVEL

EXPERT LEVEL

signs and application of non-standard or non-prescribed signs.

6. Sign design software (OPTION)

Aware of the available software for UK traffic sign face design.	Know the software for traffic sign face design.	Experience of using one of the specialist traffic sign design software systems.	Contributes (at senior level locally or at national level) expert advice, prepares guidance documents or develops software applications or carries out formal training in software applications.
Aware of the software available for road markings.	Know the signing asset management software.	Experience of other standard software for signing documentation and location information.	Manages sign face design practitioners.
Aware of the software for routeing strategies.	Know the software for site layout of signs for permanent or temporary schemes.	Able to control electronic drawing production to ensure quality control.	Prepares non prescribed traffic sign design for authorisation by DfT / HA / Secretary of State.
	Know the software for road marking layout.	Able to ensure software design output complies with advice and regulations.	Able to advise and mentor.

7. Sign Manufacturing and Specification (OPTION)

Aware of the various components of a traffic sign assembly and the materials available.	Know the approved materials used for traffic signs including retroreflectivity.	Able to prepare traffic signing specifications for use in contracts.	Contribute (at senior level locally or at national level) expert advice, prepare guidance documents or carry out formal training in sign manufacturing.
Aware of the British and European standards applicable to traffic signs, road markings, and road studs.	Able to prepare sign schedules and bills of quantity for traffic signing contracts.	Know about retroreflectivity including micro prismatic material and the options for use.	Detailed understanding of all aspects of materials and components used in traffic signing.
Aware of the sign manufacturing process.	Know the sign manufacturing process and factory activities.	Knowledge of the use of classes of reflective material under the European and British Standards.	Able to advise and mentor.

**TRAFFIC SIGN
DESIGN****1, 2 and 3 are
Compulsory****COMPETENCE STANDARD****FOUNDATION LEVEL****PRACTITIONER LEVEL****EXPERT LEVEL****8. Site installation and contracts (OPTION)**

Aware of the sign installation process.	Experience of small scale installation procedures.	Experience of commissioning and supervising sign manufacture and installation.	Contribute (at senior level locally or at national level) expert advice, prepare guidance documents or carry out formal training in installation practice and contract procedures.
Aware of the Health and Safety implications for traffic sign erection.		Able to supervise site activities with a detailed understanding of site safety issues.	Able to advise on the appropriate method of letting signing contracts.
Know the principles of determining post and foundation requirements for traffic signs.		Able to interpret current advice and guidance on the use of passively safe posts and / or alternative sign location.	Prepare and confirm signing contracts.
Aware of Construction Design and Management regulations.			Able to take the role of resident engineer on signing contracts.
Knowledge of signing contract terms and conditions documents			