Certificated Surveyor in Structural Waterproofing (CSSW)

Syllabus

Property Care Association
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Introduction

The syllabus outlines the knowledge candidates are expected to obtain for the Certificated Surveyor in Structural Waterproofing (CSSW) qualification.

This includes the following modules:

Module 1 - Legal and Health & Safety Aspects of Below Ground Waterproofing

- Legal Requirements
- Assessments
- Product Safety
- Safe Methods of Use

Module 4 - Below Ground Waterproofing

- Building Construction
- Understanding the Origin of Water Ingress into Below Ground Structures
- Basic Principles of Structural Waterproofing
- Surveying, Designing and Reporting
- Materials and Methods
- Ancillary Procedures

Qualification requirements

Certificated Surveyor in Structural Waterproofing (CSSW)

To achieve this qualification, candidates need to pass the following modules:

- Module 1 - Legal and Health & Safety Aspects of Below Ground Waterproofing
- Module 4 - Below Ground Waterproofing

These include the following assessments:

- 2 x written paper (closed book)
- 1 x 20 minute interview with two examiners

Candidates are required to achieve a 50% pass mark in all elements of the above exams to be awarded the qualification.

Upon passing Modules 1 & 4 the candidate is entitled to use the designation CSSW.

Module 1

Legal and Health & Safety Aspects of Below Ground Waterproofing

1. Legal Requirements

A Surveyor should:

1.1 Understand the legal implications of a report and estimate.

1.2 Be able to demonstrate knowledge of the correct procedures and checks before undertaking a survey or writing a report.

1.3 Have knowledge of the various Codes of Practice and Guidance Notes relating to surveying, reporting and conducting treatment work, structural waterproofing and associated works.

1.4 Understand the legal responsibilities placed on them for the health and safety and welfare of anyone that may be affected by their actions or inactions.

1.5 Be able to demonstrate knowledge of legislation concerning the protection of animals and the environment including the Wildlife and Countryside Act 1981 (revised 1991) and the Conservation (Natural Habits etc) Regulations 1994 (revised 2007)

1.6 Have general awareness of all other Acts and Regulations which could be applicable to treatments, structural waterproofing and ancillary works.

2. Assessments

A Surveyor should be able to demonstrate knowledge of:

2.1 The differences between hazard and risk, as defined by the Health and Safety Executive.

2.2 Procedures for undertaking assessments required by regulations made under the Health and Safety at Work etc Act 1974, in particular the Control of Substances Hazardous to Health Regulations (COSHH) 2002, the Management of Health and Safety at Work Regulations 1999 and other relevant health and safety legislation.

2.3 Asbestos awareness in buildings

2.4 Information on product labels and in other sources of safety data.

3. Product Safety

A Surveyor should be able to:

3.1 Demonstrate knowledge of the product hazards, limited to information on labels and in manufacturers' material safety data sheets.

3.2 Demonstrate knowledge of the safe handling of products and materials, the labeling of containers and how to deal with any fluid spillage.

3.3 Describe the correct procedures for storing and transporting products and materials.

4. Safe Methods of Use

A Surveyor should:

4.1 Understand the correct procedures for protecting the public and the environment. Demonstrate knowledge of the precautions to be taken by users of products, materials and machinery including appropriate protective clothing and equipment.

4.2 Demonstrate knowledge of the relevant legislation governing the disposal of products, other materials used, contaminated waste and general building waste.

4.3 Have an understanding of ancillary risks associated with work in buildings such as fire, electrocution, falls, confined spaces, access equipment and temporary support.

4.4 Understand the correct procedure in the event of accidents including fires.

Module 4

Below Ground Waterproofing

1. Building Construction

A Surveyor should have general knowledge of building construction and materials in the United Kingdom and in particular should be able to:

1.1 Understand the various structure types including concrete, masonry, sheet piling and modular construction and their permeability to moisture.

1.2 Understand the methods of water control used during construction.

1.3 Demonstrate knowledge of ventilation requirements in a building.

1.4 Evaluate the structural implications of any treatment to be advised and to decide if it is within the competence of the remedial company concerned.

1.5 Understand factors relating to soil permeability, grading, loading and consolidation.

1.6 Understand the implications of dampness affecting timber in buildings.

2. Understanding the Origin of Water Ingress into Below Ground Structures

A Surveyor must have knowledge of the theory of moisture movement and the practical methods of diagnosis including:

2.1 The causes and effects of dampness in buildings, including the ingress of water, capillary moisture and surface and interstitial condensation and their cure.

2.2 Physical aids to detection of moisture including the use of moisture meters and interpretation of results.

3. Basic Principles of Structural Waterproofing

A Surveyor should:

3.1 Understand and interpreting CAD and design drawing

3.2 Be fully conversant with BS8102: 2022, PCA Structural waterproofing best practice and guidance notes, and others on the PCA CSSW reading list.

3.3 Understand water movement, drainage, water tables and hydrostatic pressure/capillarity.

3.4 Understand site investigation and be familiar with soil investigations. Recognise the significance of contaminants (including ground gases) and water table classification.

3.5 Understand the grades of waterproofing and what determines the required performance level.

3.6 Understand design philosophy for structural waterproofing.

3.7 Have a full knowledge of structural waterproofing systems available and to be able to select and design the appropriate system for the conditions identified.

3.8 Understand the effects of loads on a material, deformation, stress/strain especially bending, compressive and tensile stresses.

3.9 Understand the effects of hydrostatic pressure on a waterproofed structure and floatation.

4. Surveying, Designing and Reporting

A Surveyor should be able to:

4.1 Design suitably robust waterproofing solutions.

4.2 Identify and report on the causes of dampness and sources of water ingress.

4.3 Advise on safe remedial measures and any appropriate ancillary works.

4.4 Assess ground conditions and structure.

4.5 Following assessment prepare a full and comprehensive report and specification.

4.6 Demonstrate knowledge of the implications of the defect and the repair strategies proposed.

5. Materials and Methods

A Surveyor must understand the performance characteristics of the commonly used products and their methods of application including:

5.1 General principles of barrier (type a) waterproofing systems.

5.2 General principals of structurally integral protection (type b) waterproofing systems.

5.3 General principles for cavity drains (type c) systems.

5.4 Be able to combine systems of different types and know the limitations of such processes.

5.5 Maintenance of waterproofing systems and understand the need for on-going servicing maintenance and aftercare.

5.6 Understand and recognise the advantages and disadvantages of the different systems.

5.7 The use and understanding of sub surface drainage.

6. Ancillary Procedures

A Surveyor should have general knowledge of the ancillary and supporting procedures and other methods which are employed in the water ingress including:

6.1 Types of finishing systems including decorative finishes.

6.2 Design and maintenance of water management systems (land drains, sumps, pumps, channels).

6.3 Aware of documentation that should be provided to user to ensure the longevity of the system.

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