

## Install land drainage systems

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### Overview

This standard is for those who install land drainage systems.

The typical activities you would carry out include ensuring reference marks and setting out are accurate according to specifications, locating and protecting underground and overground services, using concrete, bricks, pipe materials, masonry and aggregates and clearing up and disposing of debris.

You must carry out your work in a way which will minimise the impact on the natural environment and enhance its nature, conservation and recreational value.

If you are working with chemicals or machinery you should be trained and hold certification in accordance with relevant legislation.

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### Performance criteria

*You must be able to:*

1. carry out an environmental assessment of the site before installing land drainage systems
2. assess the risks associated with the site and the proposed work
3. select and wear suitable clothing and appropriate personal protective equipment (PPE)
4. select, prepare, use, maintain and store equipment and machinery for installing land drainage systems, safely, securely and correctly
5. use working methods that are safe and correct
6. position reference marks in accordance with specifications
7. install land drainage systems in accordance with specifications
8. minimise damage to existing structures and services
9. keep working areas clean and tidy
10. restore the site to an appropriate condition following completion of the work
11. complete work to the agreed time schedule
12. maintain communication with colleagues and others involved in, or affected by, your work
13. complete records as required by relevant legislation and the organisation
14. carry out your work in accordance with relevant environmental and health and safety legislation, risk assessment requirements, codes of practice and organisational policies

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**Knowledge and understanding**

*You need to know and understand:*

1. the importance of carrying out an environmental assessment of the site before installing land drainage systems and the findings which must be reported
2. how to identify hazards and assess risks
3. The type of clothing and personal protective equipment (PPE) suitable for the activity
4. how to interpret risk assessments
5. how to select, prepare, use and maintain equipment and machinery safely and correctly
6. the different types of drainage systems available
7. the different types of materials used for land drainage systems
8. the correct type of land drainage system for the installation
9. why it is important to position reference marks correctly according to specifications and how to do so
10. how to ensure that the installation of the land drainage system is correct according to specifications
11. how to minimise wastage of materials and time to complete the installation of the land drainage system
12. why it is important to clear debris, keep working areas clean and tidy and dispose of waste safely and correctly in accordance with instructions
13. how to minimise damage to services and surroundings
14. why it is important to complete work to the agreed time schedule
15. The importance of maintaining communication with those involved in, or affected by, your work and how this should be done
16. the records that need to be completed and the importance of keeping them
17. the importance of following environmental and ecological best practice to help minimise the impact of your work on the environment
18. your responsibilities under relevant health and safety legislation, codes of practice and organisational policies

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### Scope/range

- A. install the following types of land drainage system:
  - 1. surface water
  - 2. pipes
  - 3. tile
- B. use the following types of tools and equipment when installing land drainage systems:
  - 1. hand tools
  - 2. mechanical
- C. use the following types of material when installing land drainage systems:
  - 1. concrete
  - 2. clay
  - 3. plastic
  - 4. masonry
  - 5. aggregate

## Glossary

Instructions: verbal or written

Specifications: drawings, schedules, method statements, Standard Operating Procedures (SOPs), manufacturers' guidelines, organisational policies

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