



National Unit Specification: general information

UNIT Roads Maintenance: An Introduction to Searching for Underground Services (SCQF level 5)

CODE F55H 11

SUMMARY

This Unit covers essential knowledge and practical experience relating to searching for underground apparatus in the Roads and Highways Maintenance environment. The Unit is suitable for candidates who have had little or no experience to date in the Roads Maintenance environment and who want to gain and apply knowledge and understanding of searching for underground services in the workplace environment. Candidates will interpret information from plans and drawings and then safely carry out a search for underground services whilst complying with all relevant legislation.

OUTCOMES

- 1 Interpret information from a selection of requested public utilities plans and drawings in relation to the works area.
- 2 Prepare to carry out a search for underground service apparatus on a given work area.
- 3 Locate and avoid underground service apparatus by carrying out a search on a given work area.

RECOMMENDED ENTRY

Entry to this Unit is at the discretion of the centre. This Unit is suitable for inexperienced or entry level candidates.

CREDIT VALUE

0.5 credit at SCQF level 5 (3 SCQF credit points at SCQF level 5*).

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Administrative Information

Superclass: TK

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National Unit Specification: general information (cont)

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CORE SKILLS

There is no automatic certification of Core Skills in this Unit.

The Unit provides opportunities for candidates to develop aspects of the following Core Skills:

- ◆ Communication at SCQF level 3
- ◆ Working with Others at SCQF level 3
- ◆ Numeracy at SCQF level 3

National Unit Specification: statement of standards

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Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

OUTCOME 1

Interpret information from a selection of requested public utilities plans and drawings in relation to the works area.

Performance Criteria

- (a) Explain how to request relevant services drawings for the works area from the public service providers.
- (b) Use the given plans and drawings to correctly identify and describe the works area.
- (c) Identify correctly the different public utility services from the given plans and drawings.
- (e) Identify correctly colour coding drawing standards used by the highways industry and public utilities.
- (f) Identify correctly various underground service apparatus from plans and drawings.

OUTCOME 2

Prepare to carry out a search for underground service apparatus on a given work area.

Performance Criteria

- (a) Correctly select and test locating equipment.
- (b) Select appropriate Personal Protective Equipment (PPE) for a given task, in accordance with legislative and organisational requirements.
- (c) Demonstrate the correct adherence to statutory requirements and/or safety notices and warning signs displayed in the workplace.
- (d) Accurately mark off the works area to be tested and proved in accordance with the given plan.

OUTCOME 3

Locate and avoid underground service apparatus by carrying out a search on a given work area.

Performance Criteria

- (a) Use the pipe and cable locating equipment to carry out correct search procedures at the appointed location.
- (b) Identify correctly various underground service apparatus.
- (c) Accurately record and inform the relevant personnel of the service locations identified.
- (d) Accurately mark the area searched and the location of those services identified before excavation proceeds.

National Unit Specification: statement of standards (cont)

UNIT Roads Maintenance: An Introduction to Searching for Underground Services (SCQF level 5)

EVIDENCE REQUIREMENTS

Candidates must carry out a risk assessment before any practical activity.

Evidence is required to demonstrate that candidates have achieved all Outcomes and Performance Criteria. The specific Evidence Requirements for each Outcome are outlined below.

Written and/or oral evidence is required to demonstrate that the candidates have achieved Outcome 1. The evidence will be produced under open-book supervised conditions within a time limit of 30 minutes.

Performance evidence supplemented with an assessor observation checklist is required to demonstrate that candidates have achieved all of the Performance Criteria in Outcomes 2 and 3. The evidence will be produced under supervised conditions at appropriate points in the Unit once candidates have developed the necessary knowledge and skills.

These Evidence Requirements will be met by the completion of the Assessment Support Pack (ASP) that provides detailed assessment material for this Unit. Centres wishing to develop their own assessments should refer to the ASP to ensure a comparable standard.

National Unit Specification: support notes

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This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 20 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit is a mandatory Unit in the NPA in Roads Maintenance at SCQF level 5, but can also be taken as a free-standing Unit.

Searching for underground services is integral and key to the Roads and Highways Maintenance Industry therefore throughout the Unit emphasis will be placed on the application of Safe Working Practices in line with current safety codes of practice and policies and regulations. Candidates will continually be involved in disturbing surface areas where the location of underground services will be very important. Opportunity should be taken to integrate this into practical Units in the Roads Maintenance NPA at SCQF level 5 eg some parts of this Unit could be combined with *Roads Maintenance: An Introduction to Repair and Reinstatement of Excavations and Pavement Surfaces* at SCQF level 5. Where candidates are involved in searching for underground services in a roads maintenance environment it would be recommended that they have completed *Roads Maintenance: An Introduction to Health, Safety and Security* at SCQF level 5 and *Roads Maintenance: An Introduction to Signing, Lighting and Guarding the Work Area* at SCQF level 5 before undertaking practical activity in this Unit.

Site conditions should reflect as near as possible realistic working conditions.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

The learning environment for this Unit will be a combination of classroom and workshop based learning where the candidate will be involved in group activities and discussions. The knowledge element of this Unit would be taught in a classroom environment and put into practice in conjunction with the practical Outcomes.

Candidates could work in pairs or groups on the practical activity, although they will need to meet all Evidence Requirements individually.

OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

Opportunities may arise in this Unit for candidates to develop aspects of the following Core Skills:

- ◆ Communication at SCQF level 3 by interpreting information and work instructions, recording and informing personnel
- ◆ Working with Others at SCQF level 3 by taking part in group activities and discussions
- ◆ Numeracy at SCQF level 3 by using diagrams and marking-off the area searched

National Unit Specification: support notes

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GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Centres may use the instruments of Assessment which they consider to be most appropriate but are encouraged to use the Assessment Support Pack (ASP) developed centrally by SQA. It is expected that candidates will be given as much practise as possible in the methods of safe working practice and risk assessment methods etc, prior to being set the assessment tasks.

For Outcome 1 a suitable method for assessing candidate knowledge and understanding of searching for underground services could be through a set of multiple choice questions.

For Outcomes 2 and 3, to allow candidates to generate the Performance Evidence centres should set a series of practical assignments which accurately reflect the Unit content.

Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by information and communications technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).