



City & Guilds Level 4 Certificate of Competence in Utility Arboriculture Surveyor (0038-40)

Version 1.5 (May 2026)

Qualification Handbook

Qualification at a glance

Subject area	Utility Arboriculture
City & Guilds number	0038-40
Age group approved	18+
Entry requirements	Candidates must have achieved the following pre-requisites: Level 3 Certificate of Competence in Utility Arboriculture Basic Electrical Knowledge (0038-30) and Level 3 Certificate of Competence in Utility Arboriculture Tree Species Recognition, Growth Characteristics and Associated Hazards (0038-31) or equivalent qualifications. Centres must ensure that any pre-requisites stated are met. Candidates must meet minimum age requirements.
Assessment	To gain this qualification, candidates must successfully achieve the following assessments: One to one practical assessment with oral questioning by an NPTC City & Guilds approved assessor.
Grading	Met/Not Met
Approvals	Full Centre approval required
Support materials	Qualification Handbook (candidates). Assessment materials (approved assessment Centres only).
Registration and certification	Consult the Walled Garden/Online Catalogue for last Registration and Certification dates.

Title and level	City & Guilds qualification number	Regulatory reference number	GLH	TQT
City & Guilds Level 4 Certificate of Competence in Utility Arboriculture Surveyor	0038-40	603/7891/8	24	28

Version and date	Change detail	Section
1.0	First version	
1.1 August 2024	Update of Quality Assurance Statement	Centre Requirements
	Formatting changes	All
1.2 February 2025	Update of 'Delivering the qualification' section	Delivering the qualification
	Formatting throughout	All
1.3 August 2025	Criteria updated to use consistent terminology 'electrical network'	Units
	Legislation updated: Conservation of Habitats and Species Regulations 2017	Unit 401
1.4 January 2026	Assessment timing updated	Assessment
1.5 May 2026	Regulation/legislation titles updated in Topic 1.1: Electricity at Work Regulations 1989, Electricity Act 1989.	Unit 401

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1 Introduction

This document tells you what you need to do to deliver the **City & Guilds Level 4 Certificate of Competence in Utility Arboriculture Surveyor (0038-40)**.

Area	Description
OVERVIEW	
Who is this qualification for?	Individuals who operate around utility services as part of their work in arboriculture, forestry, or other industries. It will provide the individual with the knowledge and understanding required to be a surveyor in the utility arboriculture sector.
What does this qualification cover?	It covers legislation, regulation and sector guidance requirements, process, and procedures for carrying out a utility survey.
WHAT COULD THIS QUALIFICATION LEAD TO?	
Will the qualification lead to employment, and if so, in which job role and at what level?	This qualification will support progression into employment, where working around utility services is part of the role. Safe operational skills are key to efficient use, good working practice and preventing accidents, leading to business benefits in terms of less machinery damage and down time.
Why choose this qualification over similar qualifications?	This is a specialist qualification demonstrating the individual can safely carry out duties associated with working around utility services to a recognised level of competency.
Will the qualification lead to further learning?	Individuals who successfully complete this qualification could go on to increase their level of proficiency through consolidation practice within a working environment or develop other skills within the Utility Arboriculture suite of qualifications.
WHO SUPPORTS THIS QUALIFICATION?	
Employer/Higher Education Institutions	The Arboricultural Association
Further Information	Please refer to the City & Guilds NPTC website, for more information on the assessment.

Assessment Guidance for the Candidate

A list of registered Assessment Centres is available from City & Guilds NPTC.
(www.nptc.org.uk)

Assessment is a process by which it is confirmed that the candidate is competent in the unit(s) within the award to which the assessment relates. It is the process of collecting evidence about the candidates' capabilities and judging whether that evidence is sufficient to attribute competence.

The Candidate must be registered through the City & Guilds approved Assessment Centre for this qualification prior to the assessment.

2 Qualification Structure

For the **City & Guilds Level 4 Certificate of Competence in Utility Arboriculture Surveyor (0038-40)** learners must be trained and assessed in the units listed below.

City & Guilds unit number	Unit title	GLH
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Pre-requisite units:

301	Utility arboriculture basic electrical knowledge	16
302	Utility arboriculture tree species recognition, growth characteristics and associated hazards	8

Mandatory units:

Learners must achieve or must have achieved these mandatory unit.

401	Utility arboriculture surveyor theory	16
402	Utility arboriculture surveyor – practical	8

Total Qualification Time (TQT)

Total Qualification Time (TQT) is the number of notional hours which represents an estimate of the total amount of time that could reasonably be expected for a learner to demonstrate the achievement of the level of attainment necessary for the award of a qualification.

TQT consists of the following two elements:

- the number of hours that an awarding organisation has assigned to a qualification for guided learning
- an estimate of the number of hours a learner will reasonably be likely to spend in preparation, study or any other form of participation in education or training, including assessment, which takes place as directed by – but, unlike guided learning, not under the immediate guidance or supervision of – a lecturer, supervisor, tutor or other appropriate provider of education or training.

Title and level	GLH	TQT
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3 Centre requirements

Approval

Full approval

To offer this qualification, new centres will need to gain both centre and qualification approval. Please refer to the document **Centre Approval process: Quality Standards** for further information. Please email qasupport@cityandguilds.com for further information on the approval process.

Centre staffing

Staff delivering these qualifications must be able to demonstrate that they meet the following requirements:

- be technically competent in the areas in which they are delivering
- be able to deliver across the breadth and depth of the content of the qualification being taught
- have recent relevant teaching and assessment experience in the specific area they will be teaching, or be working towards this
- demonstrate continuing CPD.

Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualification before delivering a course programme.

Physical resources

Centres must be able to demonstrate that they have access to the equipment and technical resources required to deliver this qualification and its assessments.

Assessment Guidance for the Assessor

Staff assessing these qualifications must be approved Certificate of Competence City & Guilds NPTC Assessors and must be independent and cannot have been involved with the training of the Candidate. This qualification can only be assessed by an Assessor who is suitably qualified and meets the requirements of the awarding body.

Certificate of Competence City & Guilds NPTC Assessors must meet the following requirements:

- show competence and provide evidence of industry expertise in the qualification/s they wish to assess
- hold the qualification as a candidate and have been technically evaluated as an Assessor
- be up to date with their verification and relevant first aid
- demonstrate continuing technically relevant CPD

Compliance with these requirements is a pre-requisite for Assessors remaining on the list of approved Assessors.

Verification is a process of monitoring assessment; it is an essential check to confirm that the assessment procedures are being carried out in the way City & Guilds has laid down. The overall aim of verification is to establish a system of quality assurance that is acceptable in terms of both credibility and cost effectiveness and approved Assessors will be subject to a regular visit by the Verifier at a time when assessments are being undertaken.

A selection of assessment reports completed by the Assessor will be evaluated by a City & Guilds approved Quality Consultant.

Safe Practice

Appropriate PPE must be worn at all times.

All equipment must be operated in such a way that the Candidate, Assessor, other persons, animals or other equipment are not endangered.

If these conditions are not observed this will result in the Candidate not meeting the required standard.

Validation of Equipment

Any item(s) equipment used for the assessment must comply with current legal requirements.

Additional information may be sought from the relevant manufacturer's instruction book, operators' manual, product label/database or any other Government/Government Agency publication.

Appeals and Equal opportunities

Centres must have their own auditable, appeals procedures. If a Candidate is not satisfied with the examination conditions or a Candidate feels the opportunity for examination is being denied, the Centre Manager should, in the first instance, address the problem. If, however the problem cannot be resolved, City & Guilds will arbitrate and a Principal Verifier may be approached to offer independent advice.

All appeals must be clearly documented by the Centre Manager and made available to the Principal Verifier or City & Guilds if advice is required.

Should occasions arise when Centres are not satisfied with any aspect of the verification process, they should contact the Quality Assurance Manager at City & Guilds NPTC, 5-6 Giltspur Street, London, EC1A 9DE, UK Access to the qualification is open to all, irrespective of gender, race, creed or special needs. Subject to H&S restrictions the Centre Manager should ensure that no learner is subjected to unfair discrimination on any grounds in relation to access to assessment and to the fairness of the assessment. QCA requires City & Guilds to monitor centres to check whether equal opportunities policies are being adhered to.

Quality assurance

Approved centres must have effective quality assurance systems to ensure optimum delivery and assessment of qualifications. Quality assurance includes initial centre approval, qualification approval and the centre's own internal procedures for monitoring quality. Centres are responsible for internal quality assurance and City & Guilds is responsible for external

quality assurance. All external quality assurance processes reflect the minimum requirements for verified and moderated assessments, as detailed in the Centre Assessment Standards Scrutiny (CASS), section H2 of Ofqual's General Conditions. For more information on both CASS and City & Guilds Quality Assurance processes visit: the **What is CASS?** and **Quality Assurance Standards** documents on the City & Guilds website.

Standards and rigorous quality assurance are maintained by the use of:

- Internal quality assurance
- City & Guilds external quality assurance.

In order to carry out the quality assurance role, Internal Quality Assurers must

- have appropriate teaching and vocational knowledge and expertise
- have experience in quality management/internal quality assurance
- hold or be working towards an appropriate teaching/training/assessing qualification
- be familiar with the occupation and technical content covered within the qualification.

External quality assurance for the qualification will be provided by City & Guilds EQA process. EQAs are appointed by City & Guilds to approve centres, and to monitor the assessment and internal quality assurance carried out by centres. External quality assurance is carried out to ensure that assessment is valid and reliable, and that there is good assessment practice in centres.

The role of the EQA is to:

- provide advice and support to centre staff
- ensure the quality and consistency of assessments and marking/grading within and between centres by the use of systematic sampling
- provide feedback to centres and to City & Guilds.

Learner entry requirements

Candidates must have achieved the pre-requisites detailed in Qualification at a Glance.

Candidates must meet minimum age requirements.

Age restrictions

This qualification is approved for learners aged 18 or above.

Access arrangements and reasonable adjustments

Access arrangements are adjustments that allow candidates with disabilities, special educational needs, and temporary injuries to access the assessment and demonstrate their skills and knowledge without changing the demands of the assessment. These arrangements must be made before assessment takes place.

The Equality Act 2010 requires City & Guilds to make reasonable adjustments where a disabled person would be at a substantial disadvantage in undertaking an assessment.

It is the responsibility of the centre to ensure at the start of a programme of learning that candidates will be able to access the requirements of the qualification.

Please refer to the JCQ access arrangements and reasonable adjustments and Access arrangements - when and how applications need to be made to City & Guilds for more

information. Both are available on the City & Guilds website: **Access arrangements and reasonable adjustments.**

4 Delivering the qualification

Initial assessment and induction

An initial assessment of each learner should be made before the start of their programme to identify:

- if the learner has any specific training needs
- support and guidance they may need when working towards their qualification.
- any units they have already completed or credit they have accumulated which is relevant to the qualification
- the appropriate type and level of qualification.

We recommend that centres provide an induction programme so the learner fully understands the requirements of the qualification, their responsibilities as a learner and the responsibilities of the centre. This information can be recorded on a learning contract.

Inclusion and diversity

City & Guilds is committed to improving inclusion and diversity within the way we work and how we deliver our purpose which is to help people and organisations develop the skills they need for growth.

More information and guidance to support centres in supporting inclusion and diversity through the delivery of City & Guilds qualifications can be found here:

Inclusion and diversity | City & Guilds ([cityandguilds.com](https://www.cityandguilds.com))

Sustainability

City & Guilds are committed to net zero. Our ambition is to reduce our carbon emissions by at least 50% before 2030 and develop environmentally responsible operations to achieve net zero by 2040 or sooner if we can. City & Guilds is committed to supporting qualifications that support our customers to consider sustainability and their environmental footprint.

More information and guidance to support centres in developing sustainable practices through the delivery of City & Guilds qualifications can be found here:

Our Pathway to Net Zero | City & Guilds ([cityandguilds.com](https://www.cityandguilds.com))

Centres should consider their own carbon footprint when delivering this qualification and consider reasonable and practical ways of delivering this qualification with sustainability in mind. This could include:

- reviewing purchasing and procurement processes (such as buying in bulk to reduce the amount of travel time and energy, considering and investing in the use of components that can be reused, instead of the use of disposable or single use consumables)
- reusing components wherever possible

- waste procedures (ensuring that waste is minimised, recycling of components is in place wherever possible)
- minimising water use and considering options for reuse/salvage as part of plumbing activities wherever possible

Support materials

The following resources are available for this qualification:

Description	How to access
Candidate Handbook	www.nptc.org.uk
Assessment Pack (available only to assessors)	www.nptc.org.uk

5 Assessment

Assessment of the qualification

Assessment types			
Unit	Title	Assessment method	Where to obtain assessment materials
401	Utility arboriculture surveyor - theory	Oral Examination and Practical observation Centres may use the materials provided by City & Guilds.	www.nptc.org.uk
402	Utility arboriculture surveyor - practical	Oral Examination and Practical observation Centres may use the materials provided by City & Guilds.	www.nptc.org.uk

Assessment strategy

City & Guilds has written the practical observations with oral questioning to use with this qualification, live assessment materials can be downloaded by the assessor via the Assessment Pack from the NPTC website.

Time constraints

The following must be applied to the assessment of this qualification:

- Candidates must finish their assessment within 24 months of date of initial registration.
- The practical observation and oral questioning should take between **3.5 – 6 hours**.
- Qualification registration is valid for two years.

6 Units

Structure of the units

These units each have the following:

- City & Guilds reference number
- title
- level
- guided learning hours (GLH)
- unit aim
- assessment type
- learning outcomes, which are comprised of a number of assessment criteria

Guidance for delivery of the units

This qualification comprises a number of **units**. A unit describes what is expected of a competent person in particular aspects of their job.

Each **unit** is divided into **learning outcomes** which describe in further detail the skills and knowledge that a candidate should possess.

Each **learning outcome** has a set of **assessment criteria** (performance and knowledge and understanding) which specify the desired criteria that must be satisfied before an individual can be said to have performed to the agreed standard.

Unit 401

Utility arboriculture surveyor theory

Level:	4
GLH:	16
Assessment type:	Practical activities with oral assessment.
Aim:	The aim of this unit is to provide the learner with the knowledge and understanding required to be a surveyor in the utility arboriculture sector.

Learning outcome

The learner will:

LO1 Understand utility arboriculture surveyor theory (**Criteria 1.1-1.2**)

Assessment criteria

The learner can:

AC1.1 Legislation, regulation and sector guidance requirements

AC1.2 Process and procedures for carrying out a utility survey

Topic 1.1

The requirements of Regulation 14 Electricity at Work Regulations 1989:

- Regulation 14, Justification of Live working (working on or near live conductors)
- it is unreasonable in all circumstances for the line to be dead
- it is reasonable in all circumstances for a person to work on or near the line while it is live
- suitable precautions (including, where necessary, the provision of suitable protective equipment) are taken to prevent injury.

Principles surrounding the Electricity Act 1989 Schedule 4, Paragraph 9:

- enables work to be carried out to trees and shrubs which obstruct or interfere with the electricity network, or represents a danger
- the network operator may give a 21-day notice to both the owner and the occupier requiring work to be carried out
- for work safety reasons network operators generally operate their own vegetation management programs, carrying out the work on behalf of landowners.
- work in accordance with good arboricultural practice, doing as little damage as possible to trees, fences, hedges, and growing crops
- cause felled trees, limbs, roots or cuttings to be removed in accordance with the directions of the landowner

- any damage caused by the network operator must be made good
- other.

Constraints imposed by the Electricity Safety, Quality and Continuity Regulations (ESQCR) 2002:

- the ESQCR specify safety standards to protect the general public and consumers from danger
- the regulations also contain power
- quality and supply continuity requirements to ensure an efficient and economic electricity supply service to consumers
- the network operator has a duty to maintain minimum clearances.

The constraints imposed by the Electricity Safety, Quality and Continuity Regulations (ESQCR) 2002

- the 2006 amendments extend the network operator's duty to make the overhead networks resilient to the effect of major storms by reducing the effect of falling trees and windblown material hitting the overhead network.

Minimum clearances required by ENA TS 43-8 for trees that can support a person or ladder:

- LV - 33kv = 3m
- 66kv = 3.2m
- 132kv = 3.6m
- 275kv = 4.6m
- 400kv = 5.3m.

The main principles of ETR136:

- present generic principles of good practice for vegetation management
- meet the reasonable aspirations of all stakeholders
- covers all phases of work from the planning stage to completion and leaving the site
- provides guidance on all areas of vegetation management not just tree cutting.

Relevant aspects of HS(G)47 and GS6:

- guidance of identification of all non-electrical utilities plant
- guidance on the avoidance of danger from underground cables
- erection of barriers to prevent unauthorised access
- use of barriers and goal posts for the safe movement of vehicles through a site
- agreement with network operator for positions and heights of goal posts.

Relevant aspects of ER G55:

- live zones
- vicinity zones
- categorisation of trees
- competence of operators
- electrical risk assessment.

Aspects of Tree Preservation Order (TPO) and Conservation Area legislation and potential exemptions:

- TPO legislation prohibits the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of trees without the consent of the local planning authority (including the cutting of roots)

- anyone proposing to cut down, uproot, top or lop a tree in a conservation area is required to give six weeks' notice to the local planning authority:
 - The type of exemption that is afforded to statutory network operators may allow minimum clearances to be achieved for safety reasons
 - Any works beyond the minimum distance may have to be agreed.

Aspects concerning power line clearance operations, and the Forestry Act 1967:

- Forestry Act protects forests and woodlands against losses from human activities such as felling, development and inappropriate planting and the spread of pests and diseases
- felling licence is required when cutting more than five cubic metres per quarter.
- exemptions do include felling trees essential to maintain electricity services, however any felling beyond the statutory clearance would affect the woodland owner's quarterly allowance and require a felling licence
- bio-security measures may need to be implemented
- work may involve disease orders i.e., phytophthora spp
- notifiable invertebrates i.e. Dendroctonus micans (Great Spruce Bark Beetle)
- thaumetopoea processionea (Oak Processionary moth).

Relevant aspects of the Hedgerow Regulations 1997:

- Regulations apply to any hedgerow adjacent to common, protected, forestry or agricultural land including equine.
- hedgerow must have a continuous length of 20m, or if less than 20m meets another hedgerow at either end.
- important hedgerows are those that have existed for 30 years or more or satisfies at least one of the criteria in part ii of schedule 1
- exemptions for the network operator exist by way of schedule 4 paragraph 9 of the electricity act 1989(c) this allows cutting back or felling to prevent obstruction or interference with the conductors or plant
- specific regard would have to be taken of flight paths for bats along the length of the hedgerow and if there are any nesting birds present
- relevant aspects of the occupier liability act 1984 (amended) may include:
- the act places a duty of care on the landowner towards visitors and other persons
- good practice should ensure that work is completed to good safety standards and no danger is left unguarded at the end of the working day
- if work has to be left partially completed, it should be adequately signed and guarded.

Explain how the Occupier Liability Act 1984 (amended) can influence the work undertaken:

Relevant aspects of the Occupier Liability Act 1984 (amended) may include:

- the act places a duty of care on the landowner towards visitors and other persons
- good practice should ensure that work is completed to good safety standards and no danger is left unguarded at the end of the working day
- if work has to be left partially completed, it should be adequately signed and guarded

The powers that can be used on sites in Britain relating to the Conservation of Habitats and Species Regulations 2017:

- special nature conservation orders can be created
- individual management agreements can be made
- bylaws can be made
- may allow compulsory purchase of sites.
- there is a requirement to give notice of proposed works and there are set out fines for offences

- exemptions are allowed for emergency operations, however, the conservation body must be notified immediately
- procedures are set out for considering varying consents under the electricity act 1989.

Topic 1.2

The expected conduct for a surveyor undertaking utility surveying:

- staff should conduct and present themselves in a professional manner at all times
- use only agreed access routes
- follow the countryside code
- always carry a current network operator identification
- comply with any disease control measures
- always try to be courteous.

Considerations when introducing yourself to the landowner:

- give your name
- proof of identity to owner
- name of the company you are representing
- name of the network operator
- confirmation of landowner details
- gain permission to access owners' grounds to assess work.

The reasons for tree clearance work carried out on behalf of the network operator:

- legislation requires minimum clearances
- network operator requires specific clearance
- trees may be in contact with the line
- public safety
- maintain continuous supply.

The effects of trees or branches coming into contact with overhead lines:

- interruption of supply
- shock or burn if anyone touches the tree
- danger if tree is climbed
- trees causing damage to the overhead network
- trees may catch fire.

The important information to be discussed with the landowner following preparation of proposals:

- specific clearance required to meet with network operator standard
- arboricultural standards explained
- reasons for pruning cuts to gain possible restricted cuts and clearances
- reasons for removal of hazard trees
- replanting where and if necessary
- disposal of arisings explained and agreed
- proposals agreed and signed by owner.

The requirement to gain written consent from the landowner:

- the permission should include specific details of the proposed work
- permission should be easily understood by the landowner
- a copy of all paperwork should be left with the landowner

- where written permission is not available details of the verbal agreement should be noted on the form
- detailed access and egress agreements for pedestrians and/or vehicles should also be noted on the permission forms
- any restrictions should be noted on the form.

Areas where additional consents over and above the standard contact with the landowner might be required:

- Protected sites including Site of Special Scientific Interest (SSSI) etc
- European Protected Species (EPS) sites
- network rail sites
- regional forestry commission land
- quarries.

The important elements of the disposal of arisings on any permission:

- must be agreed with the landowner and
- confirmed in writing
- must comply with all relevant legislation
- toxic arisings such as ragwort should be made safe in respect of livestock.

Situations where a restricted cut may be justifiable:

- minimum acceptable clearance
- where requested by the landowner
- environmental or planning controls are in place
- where keeping a good form to the tree is important.

Native species that might be suggested for re-planting close to the conductors:

- blackthorn
- hawthorn
- rowan
- holly hazel
- elder
- crab apple
- dogwood
- spindle.

Species that would be totally unsuitable for re-planting near conductors:

- willows
- poplars
- ash
- alder
- wild cherry
- lime
- birch.

Possible dangers when working on a tree that has decay, defects or damage:

- fungal fruiting bodies potentially weaken the tree structure
- tree may fall early when felling
- tree may be unsuitable for climbing operations
- branch being removed may break off early
- potential to spread disease

- damage to electrical network.

Protection available for plants, birds and other animals:

- it is prohibited to uproot any wild plant species and forbids any picking, uprooting or destruction of certain listed plants
- it is an offence to kill, injure or take any wild bird, or to take damage or destroy the nest of a wild bird while in use or being built. there are additional penalties relating to disturbing listed nesting birds at nest, their eggs or dependent young.
- the intentional killing, injuring, or taking of listed wild animals is prohibited and it is a criminal offence to do so
- ignorance is now no excuse.

Relevant wildlife and environmental legislation:

- Wildlife and Countryside Act 1981
- Environmental Protection Act 1990
- The Countryside Rights of Way Act 2000 (England and Wales)
- The Nature and Conservation (Scotland) Act 2004
- Conservation of Habitats and Species Regulations 2017 (as amended).

Indicators that bats may be present on a site:

- potentially all woodland sites, individual and groups of trees
- hedge rows
- out buildings
- older trees, split branches, cavities, beneath ivy or loose bark.

Management considerations:

- stop all work
- bat surveys by a licensed experienced bat worker requested
- license may be required for works
- suspend works if bats are found, until specialist advice obtained
- managers/surveyors must demonstrate that good practice guidance was followed
- advice may be sought from the relevant nature conservation organisations
- it is an offence to disturb or damage bats or their roost, even if unoccupied.

European Protected Species:

- dormice
- otters
- great crested newts
- sand lizards
- natterjack toads.

Potential treatments for hedgerows:

- hedge topping or flailing – should only be used on regularly trimmed or previously flailed farm hedgerows
- hedge laying could be undertaken when the right context and material is available
- coppicing can be useful for the regeneration of hedgerows from the base.

Potential uses and any drawbacks in using herbicide treatments:

- must be used in accordance with the approved Code of Practice
- can be useful in the management of very fast-growing species under the conductors and around sub stations

- many herbicides cannot be used where there is any risk of run-off into watercourses.

Wildlife corridor definitions:

- wildlife corridors allow the movement of animals and plants from one area to another
- the land beneath overhead lines can form excellent wildlife corridors, particularly in urban areas
- examples of good practice for these wildlife corridors would be use of feathered edges, leaving some areas of low growing plants,
- providing small numbers of habitat piles of stacked cut material
- in dense woodland areas the creation of the open space below overhead lines can encourage species diversity.

A veteran tree can be defined as:

- a tree that is of interest biologically, aesthetically, or culturally because of its age, size and condition.

The management solution for dealing with veteran trees in proximity to an overhead network:

- where veteran trees are in proximity to overhead lines, good practice is, where practicable to seek to remove risk by reduction rather than felling.

Reasons how allelopathic plants can be a useful tool when managing trees adjacent to the overhead network:

- allelopathic plants use chemical means to exclude competition from other plants including trees
- they could be used as low growing vegetation under the lines to exclude tree re-growth
- however, a number of the more vigorous allelopathic plants are non-native, therefore, care would need to be exercised when planting in certain areas.

Elements of good forestry practice in relation to felling in woodlands:

- site should be left tidy with trees felled with low stumps with no jagged tears and neatly stacked brash
- produce should be free of any sprags, accurately converted, safely and neatly stacked for extraction
- all timber operations should be completed in a professional and safe manner.
- leave all water courses and culverts free from arisings
- avoid damage to retained standing trees
- conifer stumps should be treated for heterobasidion annosum with a dye added to the treatment to ensure complete coverage.

Unit 402

Utility arboriculture surveyor - practical

Level:	4
GLH:	8
Assessment type:	Practical activities with oral assessment.
Aim:	The aim of this unit is to provide the learner with the knowledge, understanding and skills required to carry out a utility arboriculture survey.

Learning outcome

The learner will:

LO1 Carry out utility arboriculture surveyor practical skills (**Criteria 1.1-1.6**)

Assessment criteria

The learner can:

AC1.1 Site-specific risk assessment and generic risks

AC1.2 Vegetation survey

AC1.3 Electrical risk assessment

AC1.4 Emergency procedure documentation

AC1.5 Vegetation survey documentation

AC1.6 Production of accurate plans and permission forms

Topic 1.1

Hazards, risks, and controls relevant to the site and task.

Generic hazards that are specific to the site.

Topic 1.2

Vegetation survey:

- identify vegetation requiring work
- identify vegetation in proximity to the overhead network that does not require work
- correctly identify category A, B, C, D trees
- correctly identify tree species, age and location
- identify underground cable location and other utilities
- clearance to be achieved
- traffic management considerations
- pedestrian/ vehicle access
- equipment required
- estimation of work time and staff required
- environmental considerations.

Topic 1.3

Electrical risk assessment:

- category of tree works defined
- justification for any live working
- identification of any defects on the electrical network
- identify any overhead equipment that does not comply with relevant legislation.
- document all information.

Topic 1.4

Emergency procedures:

- location of work site including address and post code
- grid reference
- what 3 words
- relevant meeting point
- appropriate contact numbers for the network operator control room
- mobile phones signal strength and battery checked throughout the course of the work
- name/number of line/circuits
- pole numbers
- nearest substation
- nearest landline
- nearest accident and emergency unit.

Topic 1.5

Reference to be made to the relevant aspects of:

- Electricity at Work Regulations
- Highway Legislation/New Road and Street Works Act
- HS(G)47, Avoiding danger from underground services
- GS6, Avoidance of danger from Overhead Electric Lines
- BS3998, British Standard Recommendations for Tree Work
- AFAG 805, Training & Certification
- ENA ER G55 Safe Tree Working in Proximity to Overhead Electric Lines
- COSHH, Control of Substances Hazardous to Health.

Document details of trees/vegetation and associated reference numbers

- document details of trees/vegetation not requiring any work

- record categories of trees/vegetation on site
- current clearances
- prescribed clearances
- recut dates
- live or dead working
- detail traffic management provisions
- detail prescribed pruning/felling methods
- any dangerous overhang to be recorded
- detail third party access provisions
- record job timings and staff required
- equipment needed (chipper, MEWP etc).

Topic 1.6

Plans to show but not limited to the following:

- electrical network location
- trees/vegetation/reference numbers
- overhead/underground utilities
- traffic management parameters
- work zones (drop zone, exclusion zones, MEWP, chipper)
- roads
- properties
- access/egress
- emergency meeting point
- significant hazards.

Permission form to include:

- clear and concise detail of work required and clearance to be achieved
- details and justification of restricted cuts
- access/egress routes confirmed
- confirmation of disposal of arisings
- identification of protection (TPO, conservation area, felling licence etc)
- landowner signature and date of consent.

Supporting information

Evidence requirements

One to one practical assessment with oral questioning by an NPTC City & Guilds approved assessor.

Unit guidance

Candidates must successfully achieve all assessment activities in this unit.

Safe Practice

Assessors must hold a current 'First Aid at Work' Certificate.

It is strongly recommended that Candidates hold at least a recent, recognised 'Emergency First Aid' Training Certificate.

Candidates should be familiar with the machine that they are going to operate.

Appropriate Personal Protective Equipment (PPE) must be worn at all times.

A First Aid kit meeting current regulations, of the appropriate size for the number of persons on site, must be available.

The Assessor must ensure a Risk Assessment is carried out, and sufficient control measures implemented.

All equipment being used for this assessment must comply with relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998 and Lifting Operations and Lifting Equipment Regulations (LOLER) 1998.

Information may be sought from the relevant operator manuals or any other appropriate training or safety publication.

Provision must be made to avoid the risk of environmental pollution and adequate control measures must be implemented (a suitable response kit to be available on the machine).

It is the responsibility of the Assessor and the Candidate to ensure that any additional requirements and provisions are met as relevant to this qualification.

Candidates must comply with current regulations when working at heights regulations 2005 amended.

A breach of Health and Safety that puts any person at risk during the assessment process will result in the assessment being terminated and the Candidate not meeting the required standard.

Candidates who undertake this assessment and have met the requirements are reminded of their legal obligation to receive/undertake appropriate additional training in the use of any equipment that differs from that used during the assessment, but which they are nevertheless qualified to use.

Suggested learning resources

May be sought from the relevant manufacturer's manuals or any other appropriate training or safety publication

Appendix 1 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the **Centre document library** on **www.cityandguilds.com** or click on the links below:

Centre Handbook: Quality Assurance Standards

This document is for all approved centres and provides guidance to support their delivery of our qualifications. It includes information on:

- centre quality assurance criteria and monitoring activities
- administration and assessment systems
- centre-facing support teams at City & Guilds/ILM
- centre quality assurance roles and responsibilities.

The Centre Handbook should be used to ensure compliance with the terms and conditions of the centre contract.

Centre Handbook: Quality Assurance Standards

This document sets out the minimum common quality assurance requirements for our regulated and non-regulated qualifications that feature centre-assessed components. Specific guidance will also be included in relevant qualification handbooks and/or assessment documentation.

It incorporates our expectations for centre internal quality assurance and the external quality assurance methods we use to ensure that assessment standards are met and upheld. It also details the range of sanctions that may be put in place when centres do not comply with our requirements or actions that will be taken to align centre marking/assessment to required standards. Additionally, it provides detailed guidance on the secure and valid administration of centre assessments.

Access arrangements: When and how applications need to be made to City & Guilds

provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The **Centre document library** also contains useful information on such things as:

- conducting examinations
- registering learners
- appeals and malpractice.

Useful contacts

Please visit the Contact us section of the City & Guilds website, **Contact us**.

About City & Guilds

City & Guilds is the global skills partner, empowering people, organisations and economies to develop the skills they need for growth. With almost 150 years of trusted expertise, we support people into work, help them develop on the job and move into the next job.

We work with Governments, employers, training providers, colleges and industry stakeholders to design and deliver high-quality training, qualifications, assessments and credentials that lead to meaningful career progression. We understand the life changing link between skills development, social mobility and success. Our solutions span critical sectors including construction, engineering, transport, energy and electrical, serving over 1 million learners annually.

Through our comprehensive portfolio of brands and trusted global network, we set industry-wide standards for technical, behavioural and commercial skills to improve performance and productivity. We believe you can achieve your potential - and we're here to help make it happen.

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