



# **City & Guilds Level 3 Certificate of Competence in Utility Arboriculture Aerial Pruning (0038-33)**

**March 2022 Version 1.1**

**Assessment Pack – Centre and Candidate  
Version**

Version and date	Change detail	Section
1.0 December 2021	First version	
1.1 March 2022	Corrected formatting and typographical errors	Throughout
	Added 'In areas where different voltages are used to the ones listed within this guidance, regional variation may be applied.'	Page 4
	Added pre-requisites	
	Activity 7 Amended to 'the correct use of suitable equipment'	Practical observation descriptor table
	Activity 20 Rephrased description	
	Amended activity description 20	Practical table

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## Pre-requisites

Candidates must have achieved:

Level 3 Certificate of Competence in Utility Arboriculture Basic Electrical Knowledge (0038-30)

Level 3 Certificate of Competence in Utility Arboriculture Tree Species Recognition, Growth Characteristics and Associated Hazards (0038-31)

Level 3 Certificate of Competence in Utility Arboriculture Ground-based Pruning (0038-32)

Level 2 certificate of competence chainsaw maintenance and cross-cutting (0039-20)

Level 2 Certificate of Competence in Felling Small Trees up-to 380mm (0039-21)

Level 2 Certificate of Competence in Climbing and Aerial Rescue (0039-22)

Level 2 Certificate of Competence in using a Chainsaw from a Rope and Harness (0039-23)  
or equivalent qualifications.

Centres must ensure that any pre-requisites stated are met.

# Introduction

This assessment relates to the units in the Qualification Handbook. The assessment(s) can be achieved at pass grade only. If any task is not achieved the candidate is unsuccessful.

This assessment is for unit 304 Utility Arboriculture Aerial Pruning covering the following learning outcome:

1. Carry out utility arboriculture aerial pruning

General guidance on the requirements for assessment can be found in the Assessor Guidance document available on the City & Guilds web site [www.nptc.org.uk](http://www.nptc.org.uk)

The assessor must complete the Practical Table mark sheet for each candidate which should be kept by the assessor for a minimum period of twelve months.

## **Record of assessment (ROA)**

A prepopulated record of assessment must be completed by the assessor following an assessment. The number of learning outcomes is listed above, these must be ticked in the relevant 'met' or 'not met' sections of the ROA.

## **ARAS Forms**

An Assessment Result Advice Slip (ARAS form) must be completed by the assessor following an assessment. The ARAS is not a certificate but, based on the evidence of the candidate's performance, is a recommendation to City & Guilds that the candidate has either met or not met the assessment criteria. All feedback is to be recorded by the assessor on the feedback section of the ARAS form.

## **Assessment Time**

The expected assessment time for this qualification is 1-2 hours.

## **Site/workshop requirements:**

Simulated overhead electrical network, trees of an appropriate size for pruning

## **Equipment/Machinery:**

Insulated rods, LOLER compliant climbing equipment, pruning saw/chainsaw fuel and oil/charged battery

## **Consumables:**

Evidence of LOLER compliance must be shown

This is a closed book assessment.

In areas where different voltages are used to the ones listed within this guidance, regional variation may be applied.

## Practical observation descriptor table

### Unit 304 Utility Arboriculture Aerial Pruning

Activity number and description from check list		Assessment criteria
1	Identify the hazards, risks and controls associated with the site, task, and machine	Identify hazards, risks, and controls relevant to the site, task, and machine
2	Explain the emergency procedures relevant to the site	Emergency procedures relevant to the work site
3	State industry guides relevant to aerial tree pruning	Industry guides relevant to aerial tree pruning: <ul style="list-style-type: none"> <li>• AA technical guide 1 Tree climbing and aerial rescue</li> <li>• AA technical guide 2 Use of tools in a tree</li> <li>• Tree work recommendations BS3998</li> </ul>
4	Describe the potential environmental damage that could occur and how to respond appropriately	Potential environmental damage may include: <ul style="list-style-type: none"> <li>• damage to retained trees</li> <li>• contamination of watercourses</li> <li>• wildlife disturbance</li> </ul> Appropriate responses may include: <ul style="list-style-type: none"> <li>• containment and clearance of spills</li> <li>• good housekeeping, use of spill mats</li> <li>• work sequence chosen to minimise subsequent damage to retained trees</li> <li>• wildlife assessments completed prior to work</li> <li>• other</li> </ul>
5	Describe site zoning in relation to on site preparation	Work site layout factors to consider may include: <ul style="list-style-type: none"> <li>• <b>work zone:</b> an area where hazards may be encountered</li> <li>• <b>drop zone:</b> an area where it is anticipated materials may fall</li> <li>• <b>exclusion zone:</b> the overall operational area</li> </ul>
6	Perform a tree condition assessment of the tree prior to commencing the work	Potential hazards that may be encountered may include: <ul style="list-style-type: none"> <li>• evidence of cavities, decay, or decay fungi</li> <li>• deadwood and broken branches</li> <li>• dead or flaking bark</li> <li>• V shaped unions</li> <li>• cracks</li> <li>• nesting insects</li> <li>• the presence of power lines or telephone wires</li> <li>• targets and obstacles underneath the tree</li> <li>• other</li> </ul>

7	Discuss a working at height assessment	<p>Working at height assessment may include:</p> <ul style="list-style-type: none"> <li>• avoid work at height - can the work be carried out from ground level?</li> <li>• prevent falls - the use of a mobile elevating work platform MEWP to prevent a fall</li> <li>• minimise the consequence of a fall - the correct use of suitable equipment minimises the distance and consequence of a fall</li> <li>• planned and organised operation</li> <li>• rescue methods considered</li> <li>• competent persons</li> <li>• selection and inspection of equipment</li> </ul>
8	Explain how the species, condition of trees and time of year affect the work	<p>Species, condition of tree and time of year may affect the work owing to:</p> <p>Species:</p> <ul style="list-style-type: none"> <li>• brittle timber – loss of control</li> <li>• responses to pruning</li> <li>• other</li> </ul> <p>Condition:</p> <ul style="list-style-type: none"> <li>• dead – loss of control, safety compromised</li> <li>• diseased – biosecurity measures</li> <li>• other</li> </ul> <p>Time of year:</p> <ul style="list-style-type: none"> <li>• some species bleed heavily if pruned at certain times of year</li> <li>• promotion of subsequent disease or infection</li> <li>• other</li> </ul>
9	Explain the basic principles of target pruning and the effect on tree pruning operations	<p>Basic principles of target pruning are to:</p> <ul style="list-style-type: none"> <li>• simulate the trees' natural ability to shed branches</li> <li>• leaves the branch bark ridge and collar intact</li> <li>• allow complete doughnut of callus wood to form</li> <li>• allow protection boundary to develop inside collar</li> <li>• cuts carried out in accordance with industry standard and job</li> <li>• specification</li> <li>• other</li> </ul>
10	Explain the importance of accurate and appropriate cuts when removing branch material	<p>Importance of accurate and appropriate cuts when removing branch material may include:</p> <ul style="list-style-type: none"> <li>• control</li> <li>• preventing splitting</li> <li>• preventing tearing</li> <li>• job specification BS3998 are met</li> <li>• other</li> </ul>

<p style="text-align: center;"><b>11</b></p>	<p>Explain different cuts and when they may be used</p>	<p>Cuts that maybe used and their application:</p> <p>Sink Cut:</p> <ul style="list-style-type: none"> <li>• directional sink with back cut retaining hinge which aide’s direction used on free fall and handheld sections</li> </ul> <p>Step Cut:</p> <ul style="list-style-type: none"> <li>• two over lapping cuts used on free fall and handheld sections</li> </ul> <p>Inboard:</p> <ul style="list-style-type: none"> <li>• finishing cut towards main stem, reducing risk of saw being taken</li> </ul> <p>Out board:</p> <ul style="list-style-type: none"> <li>• finishing cut away from main stem, timber falls flat and reduces the risk of tearing</li> </ul> <p>V Cut:</p> <ul style="list-style-type: none"> <li>• two joining directional sinks with back cut, used on smaller diameter stems under tension</li> </ul> <p>Holding Cut:</p> <ul style="list-style-type: none"> <li>• sink cut with retained hinge and hold at the rear, used on larger diameter stems under tension</li> </ul>
<p style="text-align: center;"><b>12</b></p>	<p>Explain the points that the climber must discuss when briefing the ground staff</p>	<p>The points that the climber must discuss when briefing the ground staff may be:</p> <ul style="list-style-type: none"> <li>• the contents of the electrical risk assessment</li> <li>• the contents of the site-specific risk assessment</li> <li>• emergency procedures</li> <li>• individual responsibilities</li> <li>• aerial rescue provision</li> <li>• second climber has climbing equipment on site</li> <li>• the tree hazard evaluation.</li> <li>• the planned method and sequence of work</li> <li>• means of communication established</li> </ul>

<p style="text-align: center;"><b>13</b></p>	<p>Explain how trees are electrically categorised when located in proximity to an overhead line and in which document it can be referenced</p>	<p>Category A:</p> <ul style="list-style-type: none"> <li>• trees within the Vicinity Zone (including the Live Zone) at or above the level of conductors or associated equipment</li> </ul> <p>Category B:</p> <ul style="list-style-type: none"> <li>• trees outside but capable of breaching the Vicinity Zone (including the Live Zone) adjacent to conductors or associated equipment</li> </ul> <p>Category C:</p> <ul style="list-style-type: none"> <li>• trees within the Vicinity Zone (including the Live Zone) that are beneath the conductors or associated equipment</li> </ul> <p>Category D:</p> <ul style="list-style-type: none"> <li>• trees outside the Vicinity Zone with no potential of breaching the Vicinity Zone</li> </ul> <p>Document for reference may be:</p> <ul style="list-style-type: none"> <li>• G55</li> </ul>
<p style="text-align: center;"><b>14</b></p>	<p>State the electrical method of work required prior to and during aerial pruning of branches for all tree categories</p>	<p>Procedure for category A trees:</p> <p>With the line live the method of work should be established by incorporating the following control measures:</p> <ul style="list-style-type: none"> <li>• aerial tree works will be carried out with the line made dead and earths applied, the only exception to this will be where no branches breach the Live Zone and there is further supervision and a method statement approved by the Network Operator that ensures there is no breach of the Live Zone</li> <li>• trees with branches in the Live Zone must not be climbed</li> <li>• trees with branches in the Vicinity Zone but not in the Live Zone should only be climbed where a procedure approved by the Network Operator is in place</li> <li>• if branches protrude through the Vicinity Zone and up above the height of the Vicinity Zone and overhang the extent of the Live Zone then the works will be carried out with the line dead</li> <li>• a dedicated observer capable of stopping work will be required to ensure that the required control measures are being adhered to</li> <li>• works must be planned so that there is no possibility of a climber or tools breaching the Vicinity Zone</li> </ul>



14 cont.

Procedure for category B trees:

With the line live the method of work should be established by incorporating the following control measures:

- in the circumstance where there is extensive overhang which cannot be removed using an approved method over the Live Zone then works shall be carried out dead
- full account of the weather conditions must be taken
- control measures should, where necessary, include preparatory work to remove branches in a logical manner to avoid the risk of small branches cut higher up in the crown outside the Vicinity Zone bouncing or cartwheeling onto the line
- if branches have the potential to breach the Live or Vicinity Zone, then only small sections should be removed to avoid a phase-to-phase contact or damage to the network, the maximum length of cut section should be recorded on the risk assessment and a dedicated observer capable of stopping work must be used
- these trees can be climbed and dismantled with suitable control measures
- it must be ensured that in the event of a fall or swing there is no possibility of a climber breaching the Vicinity Zone
- a dedicated observer capable of stopping work must be used to maintain clearances if a climber or mobile elevating work platform is above the level of conductors

Procedure for category C trees:

With the line live the method of work should be established by incorporating the following control measures:

- remove branches in the Live Zone with approved insulated tools before any aerial pruning
- If the trees are below the level of the Live Zone, then they may be climbed ensuring that no part of the climber's body, tools or equipment can breach the Vicinity Zone and that branches are not caused to breach the Live Zone
- a dedicated observer capable of stopping work should be used in this instance.

14 cont.		<p>Procedure for category D trees:</p> <p>With the line live the method of work should be established by incorporating the following control measures:</p> <ul style="list-style-type: none"> <li>• use non-insulated tools and avoid any breach of the Vicinity Zone by operatives, tools, or equipment</li> </ul>
15	Inspect all access/tree climbing equipment to ensure it is safe and fit for use under manufacturer's instructions and relevant legislation	Candidate to inspect <b>all</b> equipment to be used and comment on the condition/checks made.
16	Prepare to climb the tree	<p>Prepare to climb the tree:</p> <ul style="list-style-type: none"> <li>• insulated rods used to position ropes or to position throw bag</li> <li>• ropes or throw-bags are not thrown in proximity to overhead line</li> <li>• anchor point positioned so that climber will swing away from conductors in event of a fall</li> <li>• ropes installed into the tree on the opposite side to the overhead line</li> </ul>
17	Use access and positioning methods appropriate to the tree	<p>All anchor points selected taking into consideration:</p> <ul style="list-style-type: none"> <li>• size, strength, and structure</li> <li>• position in relation to the parts of the tree to be accessed</li> </ul> <p>Candidate establishes their initial anchor points considering:</p> <ul style="list-style-type: none"> <li>• suitability of the techniques used</li> <li>• accurate installation of equipment</li> <li>• organisation of ropes</li> <li>• safety and position of the anchor points</li> <li>• testing of the anchor points by thorough loading prior to ascent</li> </ul> <p>Technique used considers:</p> <ul style="list-style-type: none"> <li>• efficient use of technique chosen</li> <li>• candidate is always attached to the tree in accordance with industry good practice</li> <li>• appropriate selection of anchor points</li> <li>• appropriate route taken up the tree</li> <li>• correct use of systems when changing anchor points</li> <li>• thorough load testing of new anchor points</li> <li>• risk of a fall is always managed</li> <li>• correct use of equipment</li> </ul>

18	Climb the tree to work position	<p>Climb the tree to work position:</p> <ul style="list-style-type: none"> <li>• signals agreed (hand/radio)</li> <li>• tree climbed on opposite side to conductors</li> <li>• tree climbed facing the conductors whenever reasonably practical</li> <li>• ropes routed away from the conductors</li> <li>• work position established</li> <li>• ensure climber or any equipment does not infringe the Vicinity Zone</li> <li>• ensure climber or any equipment cannot infringe Vicinity Zone in the event of a fall</li> <li>• ensure that the climber does not work directly above any conductor</li> <li>• ensure a dedicated observer capable of stopping work if the climber works above the level of the conductors</li> </ul>
19	Carry out pruning work in accordance with job specification	<p>Carry out pruning work in accordance with job specification:</p> <ul style="list-style-type: none"> <li>• ensure clear and concise communication</li> <li>• sections cut small enough for ease of handling</li> <li>• cut sections cast away from the conductors to prevent breach of Vicinity Zone</li> <li>• all pruning operations carried out to prevent the climber and un-insulated equipment breaching the Vicinity Zone</li> <li>• safe/correct pruning methods applied</li> <li>• stated clearance achieved the from the line</li> <li>• cut section controlled to prevent tearing or ripping of the bark</li> <li>• branch bark collar preserved</li> <li>• if appropriate mirror the branch bark ridge</li> <li>• prune to encourage any new growth to grow away from the line</li> </ul>
20	Check all arising's are dropped/thrown into the planned drop zone without compromising the access equipment or damaging any infrastructure	<p>Drop zone used ensuring:</p> <ul style="list-style-type: none"> <li>• no hanging branches left within tree</li> <li>• access equipment is not compromised/damaged</li> <li>• infrastructure is not damaged</li> </ul>
21	Descend from the tree	<p>Descend from the tree and stow equipment safely and appropriately:</p> <ul style="list-style-type: none"> <li>• tree descended on opposite side to conductors</li> <li>• ropes removed ensuring no breach of Vicinity Zone</li> <li>• equipment stowed</li> </ul>

<b>22</b>	Dispose of waste in line with work specification	All waste produced from activities is disposed of in line with legislation, good practice and/or site requirements
<b>23</b>	Communicate appropriately with ground staff	Communication between climber and ground staff maintained when appropriate
<b>24</b>	Applied pruning specification	Pruning specifications executed as per industry good practice and job specification
<b>25</b>	Used appropriate tools, equipment and personal protective equipment (PPE)	All tools, equipment and personal protective equipment is used in line with industry good practice
<b>26</b>	Carried out work to minimise environmental damage	It is ensured that any possible environmental damage is always minimised
<b>27</b>	Worked in a way which maintains health and safety and is consistent with relevant legislation and industry good practice	All activities must be completed in a way which protects the operator and those around them

## Practical tables

### Unit 304 Utility Arboriculture Aerial Pruning

Candidate name:

Date:

Start time:

Finish time:

**All** criteria must be achieved.

Activity number and description	Achieved
1. Identify the hazards, risks and controls associated with the site	
2. Explain the emergency procedures relevant to the site	
3. State industry guides relevant to aerial tree pruning	
4. Describe the potential environmental damage that could occur	
5. Describe site zoning in relation to on site preparation	
6. Perform a tree condition assessment of the tree	
7. Discuss a working at height assessment	
8. Explain how the species, condition of trees and time of year affect the work	
9. Explain the basic principles of target pruning	
10. Explain the importance of accurate and appropriate cuts when pruning	
11. Explain different cuts and when they may be used	
12. Demonstrate knowledge of briefing the ground staff	
13. Explain how trees are electrically categorised	
14. State the Methods of Work for each of the respective tree categories	
15. Inspect all access/tree climbing equipment to ensure it is safe and fit for use	
16. Prepare to climb the tree	
17. Use access and positioning methods appropriate to the tree	
18. Climb the tree to work position	
19. Carry out pruning work in accordance with job specification	
20. Check all arising's are dropped/thrown into the planned drop zone without compromising the access equipment or damaging any infrastructure	
21. Descend from the tree	
22. Dispose of waste in line with work specification	
23. Communicate appropriately with ground staff	
24. Applied pruning specification	
25. Used appropriate tools, equipment, and personal protective equipment (PPE)	
26. Carried out work to minimise environmental damage	
27. Worked in a way which maintains health and safety	
Grade (P/X)	

Assessor feedback:

Candidate feedback:

Assessor signature and date

Candidate signature and date

## 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 **Centres and Training Providers homepage** on [www.nptc.org.uk](http://www.nptc.org.uk).

### City & Guilds Centre Manual

This document provides guidance for organisations wishing to become City & Guilds approved centres, as well as information for approved centres delivering City & Guilds qualifications. It covers the centre and qualification approval process as well as providing guidance on delivery, assessment and quality assurance for approved centres.

It also details the City & Guilds requirements for ongoing centre and qualification approval, and provides examples of best practice for centres. Specifically, the document includes sections on:

- the centre and qualification approval process
- assessment, internal quality assurance and examination roles at the centre
- registration and certification of candidates
- non-compliance and malpractice
- complaints and appeals
- equal opportunities
- data protection
- management systems
- maintaining records
- internal quality assurance
- external quality assurance.

### Our Quality Assurance Requirements

This document explains the requirements for the delivery, assessment and awarding of our qualifications. All centres working with City & Guilds must adopt and implement these requirements across all of their qualification provision. Specifically, this document:

- specifies the quality assurance and control requirements that apply to all centres
- sets out the basis for securing high standards, for all our qualifications and/or assessments
- details the impact on centres of non-compliance

Our Quality Assurance Requirements document encompasses the relevant regulatory requirements of the following documents, which apply to all UK centres working with City & Guilds:

- Ofqual's General Conditions of Recognition

The **centre homepage** section of the City & Guilds website also contains useful information on

- **Walled Garden:** how to register and certificate candidates online
- **Events:** dates and information on the latest Centre events
- **Online assessment:** how to register for e-assessments.

## Useful contacts

<b>UK learners</b> General qualification information	<b>E: <a href="mailto:learnersupport@cityandguilds.com">learnersupport@cityandguilds.com</a></b>
<b>International learners</b> General qualification information	<b>E: <a href="mailto:intcg@cityandguilds.com">intcg@cityandguilds.com</a></b>
<b>Centres</b> Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results	<b>E: <a href="mailto:information@cityandguilds.com">information@cityandguilds.com</a></b>
<b>Single subject qualifications</b> Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change	<b>E: <a href="mailto:singlesubjects@cityandguilds.com">singlesubjects@cityandguilds.com</a></b>
<b>International awards</b> Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports	<b>E: <a href="mailto:intops@cityandguilds.com">intops@cityandguilds.com</a></b>
<b>Walled Garden</b> Re-issue of password or username, Technical problems, Entries, Results, e-assessment, Navigation, User/menu option, Problems	<b>E: <a href="mailto:walledgarden@cityandguilds.com">walledgarden@cityandguilds.com</a></b>
<b>Employer</b> Employer solutions, Mapping, Accreditation, Development Skills, Consultancy	<b>T: +44 (0)121 503 8993</b> <b>E: <a href="mailto:business@cityandguilds.com">business@cityandguilds.com</a></b>

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## About City & Guilds

As the UK's leading vocational education organisation, City & Guilds is leading the talent revolution by inspiring people to unlock their potential and develop their skills. City & Guilds is recognised and respected by employers across the world as a sign of quality and exceptional training.

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