



City & Guilds Level 4 Award for Domestic Retrofit Assessors (7618-04)

Version 1.0 January 2025

Qualification Handbook

Qualification at a glance

Subject area	05.2 Building and Construction
City & Guilds number	7618
Age group approved	16+
Entry requirements	City & Guilds does not set entry requirements for this qualification. However, centres must ensure that candidates have the potential and opportunity to gain the qualification successfully. (See section 2)
Assessment	Portfolio of evidence
Grading	Pass/Fail
Approvals	Full approval
Support materials	Candidate Logbook, Smartscreen
Registration and certification	Consult the Walled Garden/Online Catalogue for last dates

Title and level	City & Guilds qualification number	Regulatory reference number	GLH	TQT
City & Guilds Level 4 Award for Domestic Retrofit Assessors	7618-04	610/5214/0	38	60

Version and date	Change detail	Section
1.0 January 2025	Initial version	All

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1 Introduction

This document tells you what you need to do to deliver the qualification:

Area	Description
Who is the qualification for?	This qualification is aimed at learners who are interested in becoming a Domestic Retrofit Assessor within the Construction industry. It is also aimed at upskilling existing employees in the Construction industry.
What does the qualification cover?	This qualification covers the key knowledge and skills required to carry out retrofit assessments for domestic buildings. Learners will study how to assess the condition of domestic buildings and their suitability for retrofit upgrades, including how to produce high quality retrofit assessment reports.
What opportunities for progression are there?	The Retrofit Assessor qualification supports progression for learners looking to gain employment as a Retrofit Assessor and progress further into the role of Retrofit Coordinator. The skills developed through this qualification are also transferable into other Construction areas.
Who did we develop the qualification with?	The qualification was developed in collaboration with industry specialists and established lecturers and assessors. These technical specialists were drawn from suitably representative sizes of organisations and specialisms within the Construction industry across the UK.
Is it part of an apprenticeship framework or initiative?	The City & Guilds Level 4 Award for Domestic Retrofit Assessors is not an apprenticeship, but it could be taken as a value added off the job training qualification to enable apprentices to learn about the evolving retrofit industry. It can be embedded into the apprentice's learning journey to support relevance to the current industry climate. This Award can be delivered as a standalone qualification or integrated within a longer programme of study in a vocational area.

Structure

To achieve the City & Guilds Level 4 Award for Domestic Retrofit Assessors, learners must achieve:

City & Guilds unit number	Unit title	GLH
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Mandatory units:

Learners must achieve all **three** mandatory units.

401	Assessing the condition of domestic dwellings for retrofit	14
402	Existing installations and their effect on retrofit	11
403	Producing retrofit assessment reports for domestic properties	13

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:

- 1) the number of hours that an awarding organisation has assigned to a qualification for guided learning
- 2) 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
City & Guilds Level 4 Award for Domestic Retrofit Assessors	38	60

2 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 Assurance Standards** for further information.

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

Resource requirements

Centre staffing

Staff delivering these qualifications must be able to demonstrate that they meet the following occupational expertise requirements. They should:

- be occupationally competent or technically knowledgeable in the area(s) for which they are delivering training and/or have experience of providing training (this knowledge must be to the same level as the training being delivered)
- have recent relevant experience in the specific area they will be assessing
- have credible experience of providing training.

Continuing professional development (CPD)

Centres are expected to support their staff in ensuring that their knowledge remains current of the occupational area and of best practice in delivery, mentoring, training, assessment and quality assurance, and that it takes account of any national or legislative developments.

Physical resources

This qualification requires learners to evidence the assessment criteria through a portfolio of evidence to include retrofit assessments of domestic dwellings.

Facilities:

To meet the evidence requirements, learners will need access to domestic dwellings to carry out their retrofit assessment surveys. This could be any of the following:

- customer properties (where the learner is in a job role or has access to a suitable workplace)
- learner's own home or homes of friends/relatives
- suitable, realistic working environment provided by the centre (ie domestic buildings on campus or elsewhere, with access arranged by the centre)

Equipment:

- IT equipment (desktop computer/laptop/tablet)
- Digital cameras or other suitable equipment to capture photographic evidence
- Measuring equipment (traditional and/or digital)
- Drawing equipment/facilities (for the production of floorplans – this may be done using software or by hand, (ie on graph paper)
- RdSAP software can be used to produce retrofit assessment reports, but this is not a mandatory requirement. Centres must ensure that reports contain sufficient information to meet the assessment criteria of the qualification.

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

City & Guilds does not set entry requirements for this qualification. However, centres must ensure that candidates have the potential and opportunity to gain the qualification successfully.

City & Guilds recommends that learners entered for this qualification should hold a Level 3 Construction related qualification or a Level 3 Domestic Energy Assessment qualification, or have similar relevant qualifications and/or experience.

Age restrictions

This qualification is approved for learners aged 16 or above.

Access arrangements and reasonable adjustments

City & Guilds has considered the design of this qualification and its assessments in order to best support accessibility and inclusion for all learners. We understand however that individuals have diverse learning needs and may require reasonable adjustments to fully participate. Reasonable adjustments, such as additional time or alternative formats, may be provided to accommodate learners with disabilities and support fair access to assessment.

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](#)

3 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 \(cityandguilds.com\)](#)

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 \(cityandguilds.com\)](#)

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
Qualification handbook	www.cityandguilds.com
Candidate logbook	www.cityandguilds.com
SmartScreen	www.smartscreen.co.uk

4 Assessment

Assessment of the qualification

Candidates must:

- have completed a portfolio of evidence that provides assessment evidence for each unit.

Assessment types			
Unit	Title	Assessment method	Where to obtain assessment materials
401	Assessing the condition of domestic dwellings for retrofit	Portfolio of evidence including a complete retrofit assessment report and presentation.	www.cityandguilds.com
402	Existing installations and their effect on retrofit		
403	Producing retrofit assessment reports for domestic properties		

Assessment strategy

Units are assessed through a portfolio of evidence. All evidence in the portfolio for the skills learning outcomes must be generated in a workplace (domestic dwelling) or in a realistic working environment. Specific guidance is available in the **Candidate Logbook**.

The portfolio of evidence will include a presentation which the candidate delivers to their assessor to confirm their knowledge and understanding. The assessor's recording of the presentation must be submitted as evidence within the portfolio.

Portfolio of evidence

Candidates and centres may decide to use a paper-based or electronic method of recording evidence.

City & Guilds has produced a **Candidate Logbook** which must be used to record assessment of evidence, available on the City & Guilds website. Centres must comply with the specific requirements for recording and submitting any electronic evidence, as outlined in the **Candidate Logbook**.

City & Guilds endorses several ePortfolio systems, including our own, **Learning Assistant**, an easy-to-use and secure online tool to support and evidence candidates' progress towards achieving qualifications. Further details are available at www.cityandguilds.com/eportfolios.

City & Guilds has developed a set of **recording forms** including examples of completed forms for new and existing centres to use as appropriate. Recording forms are available on the City & Guilds website.

Although new centres are expected to use these forms, centres may devise or customise alternative forms, which **must** be approved for use by the external quality assurers, before they are used by candidates and assessors at the centre. Amendable (MS Word) versions of the forms are available on the City & Guilds website.

Evidence sources

A portfolio of evidence will typically include several pieces of evidence – it must contain sufficient evidence to demonstrate the knowledge and skills required for each appropriate unit.

Evidence sources may include:

- retrofit assessment report
- presentation (recording and materials)
- photographs
- supporting documents (eg. Energy Performance Certificates)

The evidence provided must be valid and attributable to the candidate; the portfolio of evidence must contain a statement from the centre confirming this.

Evidence **must not** include any methods of self-assessment.

Any employer contributions should focus on direct observation of evidence (for example witness statements) of competence, rather than opinions.

Time constraints

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

- the assessment must be completed within the learner's period of registration.

5 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
- range statements
- supporting information

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.

Range statements define the breadth or scope of a learning outcome and its assessment criteria by setting out the various circumstances in which they are to be applied.

Supporting information provides guidance of the evidence requirement for the unit and specific guidance on delivery and range statements. Centres are advised to review this information carefully before delivering the unit.

Where the unit content includes legislation or regulations, centres must refer to up-to-date legislation or regulations at the time when teaching and assessment is taking place.

Unit 401

Assessing the condition of domestic dwellings for retrofit

Level:	4
GLH:	14
Assessment type:	Portfolio of evidence
Aim:	<p>This unit will provide learners with the skills required to undertake a building condition survey. It also covers the skills required to investigate common building defects in domestic dwellings.</p> <p>Learners will become competent in collating and providing information via a report which is used by the Retrofit Coordinator and Designer in the design of retrofit installations and upgrades.</p> <p>The information provided by a Retrofit Assessor will ensure a robust approach to the 'fabric first' ethos of domestic retrofit installations.</p>

Learning outcome

The learner will:

LO1 be able to assess domestic building types to support a building condition survey.

Assessment criteria

The learner can:

AC1.1 assess the **classifications and types of buildings**.

AC1.2 assess the **different parts of buildings**.

AC1.3 assess the **elements for each type of building**.

Range

AC1.1 **classifications and types of buildings**

- classifications of buildings
- house and bungalow types
- apartment and maisonette types

AC1.2 **different parts of buildings**

- Main dwelling
- Extensions

AC1.3 **elements for each type of building**

- walls

- roofs
 - floors
 - windows/doors
-

Learning outcome

The learner will:

LO2 be able to conduct a building condition survey for a domestic dwelling.

Assessment criteria

The learner can:

AC2.1 assess the building's age, heritage, and architectural **features** relevant to a retrofit.

AC2.2 review and record the **fundamentals of the building floorplan**.

AC2.3 conduct a **measured survey to collect data**.

AC2.4 provide 'as existing' **drawings/plans, elevations and general layouts**.

AC2.5 record **common internal and external building envelope defects and causes**.

Range

AC2.1 **features** relevant to a retrofit

- construction and built form
- building fabric
- windows and doors
- mechanical and electrical systems
- utilities system
- heating, ventilation and air conditioning (HVAC) systems
- conservation areas
- listed buildings

AC2.2 **fundamentals of the building floorplan**

- orientation
- room types
- dimensions of each room (including height)
- room layout
 - position of openings
 - door opening direction
 - window position and area
 - staircase position (if present)
- fixtures
 - consumer unit/fuse board
 - extractor fans
 - radiators with thermostatic radiator valves (TRV) if present
 - thermostat
 - boiler/heating system
 - hot water cylinder (if present)

AC2.3 **measured survey**

- traditional methods
 - laser scanning methods
 - building information modelling (BIM)
-

AC2.3 collect data

- site notes and dimensions
- existing Energy Performance Certificate (EPC)
- location and details of existing retrofitting measures
- location and details of obstacles to retrofit installation
- location and details of any constraints preventing assessment or data collection

AC2.4 drawings/plans, elevations and general layouts

- floorplan (one per floor/story/building)
- front, rear and side elevations
- general layout of the property

AC2.5 common internal and external building envelope defects and causes

- damp
- condensation
- water penetration
- loose finishes and fixings
- structural movement / cracking
- dry rot

Learning outcome

The learner will:

LO3 be able to assess defects in a domestic property.

Assessment criteria

The learner can:

AC3.1 assess **defects relating to water ingress** and **common areas of water penetration**.

AC3.2 assess **defects relating to water leaks from building service installations**.

AC3.3 assess the **causes of common structural defects**.

Range

AC3.1 defects relating to water ingress

- rising damp
- penetrating damp
- wet rot
- condensation
- mould

AC3.1 common areas of water penetration

- around window / door openings
- through the wall fabric
- via failing jointing / pointing
- flashing failure
- blocked or broken guttering
- deterioration of materials used in the external envelope

AC3.2 **defects relating to water leaks from building service installations**

- leaks from uninsulated pipes
- leaks from corroded tanks and radiators
- leaks from failing joints
- leaks resulting from blocked soil and waste pipework
- leaks resulting from cracked sanitary goods
- leaks resulting from incorrect pipe falls

AC3.3 **causes of common structural defects** - loss of structural integrity due to:

- subsidence
- lintel failure
- corrosion of reinforcement materials (wall ties, cavity trays)
- damage by trees, plants and the local environment
- dry rot (masonry and wood)

Learning outcome

The learner will:

LO4 evaluate current insulation standards in a domestic property.

Assessment criteria

The learner can:

AC4.1 evaluate the **potential issues** related to insulation, fixtures, fittings and services in the retrofit process.

AC4.2 **evaluate existing and proposed U values** according to current industry standards.

AC4.3 evaluate **insulation standards for walls**.

AC4.4 evaluate **insulation standards for roofs**.

AC4.5 evaluate **insulation standards for floors**.

Range

AC 4.1 **potential issues**

- relocation of services: heating, electrical and telecommunications
- insufficient vapour control (including open and closed wall construction)
- floor and wall upgrade issues affecting the retrofit process
- adjustments to windows, doors, fixtures and fittings requiring relocation / specific considerations

AC4.2 **evaluate existing and proposed U values**

- typical U values for common forms of construction
- calculation of proposed improved thermal resistance (U value)
- surface resistances
- airspace resistances
- units of U value and calculation of heat losses, gains
- sources of information (approved document/building regulations/RdSAP)

AC4.3 **insulation standards for walls**

- requirements to meet Approved Document / building regulations

- minimum improved U values for types of wall insulation
- limitation of thermal bridging
- requirements for continuity of insulation
- area weightings for worst case U values

AC4.4 **insulation standards for roofs**

- requirements to meet Approved Document / building regulations
- minimum improved U values for roofs
- effects of the pitch of the roof on U values
- area weightings for worst case U values

AC4.5 **insulation standards for floors**

- requirements to meet Approved Document / building regulations
- locations that require floor insulation
- improved U value requirements for floor insulation
- area weightings for worst case U values

Unit 401

Assessing the condition of domestic dwellings for retrofit

Supporting information

Unit guidance

Learning outcome 1

Learners will develop an understanding of different types, classifications, parts and elements of domestic buildings so that they can accurately identify and record this information in a retrofit assessment.

Learning outcome 2

Learners will carry out a building condition survey as part of the retrofit assessment process and develop their ability to assess internal and external defects in the building fabric that may affect retrofit activities.

AC2.3 Conduct a measured survey to collect data: learners are only required to evidence traditional methods for carrying out the measured survey. Laser scanning and BIM can be used but are not a requirement.

AC2.4 Provide 'as existing' drawings/plans, elevations and general layouts: Learners are not required to produce scale drawings of the floorplans. Existing drawings can be sourced and annotated with dimensions and features. If no floorplans are available for the property, annotated sketches are sufficient. For elevations, photographs of each elevation are sufficient.

Learning outcome 3

Learners will develop their skills in assessing structural defects in the building fabric, including how water ingress and leaks can occur and how these may affect retrofit activities.

Learning outcome 4:

Learners will develop their ability to analyse the insulation of a domestic building, relating it to current standards. Potential issues impacting the retrofit process will also be covered. Reference to material manufacturer's data for U values of different insulation materials may be useful to give learners an understanding of different insulation types, as well as reference to the current, relevant Approved Document or building regulations.

AC4.2 Evaluate existing and proposed U values: according to current industry standards – software or online tools can be used to perform the relevant calculations.

Unit 402

Existing installations and their effect on retrofit

Level:	4
GLH:	11
Assessment type:	Portfolio of evidence
Aim:	<p>This unit will provide learners with the knowledge and understanding required to investigate existing installations and how these might affect retrofit activities for different types of domestic dwelling.</p> <p>Learners will become competent in analysing the existing features of properties used for domestic purposes that will need to be retrofitted, as well as the existing systems used in their construction.</p> <p>The information that learners collate as part of their assessment will influence the approaches taken during subsequent retrofit activities.</p>

Learning outcome

The learner will:

LO1 be able to evaluate the compatibility of buildings for retrofit upgrades.

Assessment criteria

The learner can:

AC1.1 carry out a **significance assessment survey** to determine the **significance** of a domestic building.

AC1.2 assess **opportunities and constraints** that might affect retrofit activities.

AC1.3 evaluate the **potential for retrofit upgrades** to an existing building.

Range

AC1.1 **significance assessment survey**

- checking for local/national recognition status (listed buildings)
- identifying significant features in the building fabric (materials, construction, decorative features)
- identifying significant internal features (materials, construction, decorative features)
- identifying previous alterations and potential opportunities for enhancements (eg to restore a significant feature as part of the retrofit, which has been previously altered).

AC1.1 **significance**

- architectural

- aesthetic
- communal
- evidential
- historical

AC1.2 **opportunities and constraints**

- architectural features that need to be protected or retained
- local climate and prevailing weather conditions
- planning restrictions and regulations
- need for remedial action or repairs to the existing structure
- local built environment

AC1.3 **potential for retrofit upgrades**

- existing sources of energy and fuel
- opportunities to improve the efficiency of existing building services
- opportunities for further investigation and consultation

Learning outcome

The learner will:

LO2 be able to assess different building services in relation to a potential retrofit.

Assessment criteria

The learner can:

- AC2.1 understand the drawing conventions used to represent **building services** in existing buildings.
- AC2.2 assess **existing heating and cooling installations** in a building.
- AC2.3 assess **existing electrical installations** in a building.
- AC2.4 assess **existing plumbing installations** in a building.

Range

AC 2.1 **building services**

- renewable energy
- ventilation
- utilities (water/electricity/communications)

AC2.2 **existing heating and cooling installations**

- efficiency and condition of existing installations
- locations of heating ventilation and air conditioning (HVAC) systems
- location of central heating system
- types of energy used
- impact on proposed retrofit project(s)

AC2.3 **existing electrical installations**

- grid connections
- existing renewable energy systems
- part P (design and installation approved document)
- looped services

AC2.4 **existing plumbing installations**

- efficiency of existing installations
- condition of existing installations
- locations of hot water and cold water systems
- types of energy used
- location and condition of wastewater and sewerage systems
- location and condition of surface water drainage systems

Learning outcome

The learner will:

LO3 be able to evaluate the requirements for air tightness and ventilation systems in domestic properties.

Assessment criteria

The learner can:

AC3.1 determine the various **types of ventilation systems** for domestic properties.

AC3.2 outline the **risk pathways** for air tightness and ventilation **systems** in domestic properties.

AC3.3 explain the **prevention of overheating** in retrofitted domestic properties.

AC3.4 evaluate the **impacts of air tightness and ventilation systems** in domestic properties.

Range

AC3.1 **types of ventilation systems**

- mechanical extract ventilation (MEV)
- mechanical ventilation with heat recovery (MVHR)
- heat recovery ventilation (HRV)
- energy recovery ventilation (ERV)
- passive stack ventilation (PSV)

AC3.2 **risk pathways**

- airtightness testing
- common air leakage paths
- compliance with building regulations, PAS2030 and PAS2035
- ventilation for occupant comfort
- common post-installation faults

AC3.2 **systems**

- infiltration system
- exfiltration system

AC3.3 **prevention of overheating**

- passive measures:
 - natural ventilation
 - shading
 - green surfaces

- cool surfaces
 - thermal mass
- active solutions:
 - fans
 - heat pumps
 - hot water pipe placement

AC3.4 impacts of air tightness and ventilation systems

- improving indoor air quality
- improving health factors
- quiet operation
- lower running costs
- reducing risk of condensation, mould and damp

Unit 402

Existing installations and their effect on retrofit

Supporting information

Unit guidance

Learning outcome 1

Learners will develop their ability to assess the suitability of dwellings for retrofit upgrades by conducting significance surveys/assessments to identify any constraints or opportunities which may impact a property's suitability for retrofit. Learners will also consider other factors such as existing energy and fuel sources and local climate and how these can affect suitability.

Suggested learning resources:

Find listed buildings (Historic England) – www.historicengland.org.uk/listing

Planning restrictions and regulations - Local authority websites

Learning outcome 2

Learners will develop understanding and skills in assessing the type, condition and/or efficiency of existing building services. These will include energy, heating, cooling, electrical and plumbing installations. This should include understanding of how these services are recorded and represented on floorplans.

Learning outcome 3

Learners will develop their ability to evaluate the types of existing ventilation systems in a property, and how this works in conjunction with the requirements for air tightness to prevent overheating and maintain optimal conditions in a dwelling. This should include understanding of how these systems are recorded and represented on floorplans.

Unit 403

Producing retrofit assessment reports for domestic properties

Level:	4
GLH:	13
Assessment type:	Portfolio of evidence
Aim:	<p>This unit will provide learners with the knowledge and understanding required to undertake assessments for a domestic property. It also covers the skills required to create written reports.</p> <p>Learners will become competent in the methods used to report and assess the energy efficiency of dwellings, including the Building Condition report, Standard Assessment Procedure (SAP) and the Reduced Data Standard Assessment Procedure (RdSAP). This will also include how energy assessment reports are communicated to relevant persons.</p>

Learning outcome

The learner will:

LO1 be able to collate the contents of a building condition report.

Assessment criteria

The learner can:

AC1.1 prepare all **evidence for a building condition report**.

AC1.2 determine the **category of the building** for the condition report.

AC1.3 produce a **building condition report**.

Range

AC1.1 evidence for a building condition report

- recording techniques
 - building condition survey records
 - floorplan(s), elevations and general layouts
 - photographic evidence
- information regarding previous renovations or retrofitting measures
- energy efficiency rating (A-G) from the Energy Performance Certificate (EPC)
- recommendations for improved energy efficiency from the Energy Performance Certificate (EPC)

AC1.2 category of the building

- green - level one; no repair is needed

- amber - level two; non urgent defects that need remedial action
- red - level three; defects that need urgent repair

AC1.3 building condition report

- structure of report
- format
- language/tone
- information required

Learning outcome

The learner will:

LO2 be able to evaluate how retrofit energy assessments function within PAS 2035.

Assessment criteria

The learner can:

AC2.1 explain **PAS 2035 requirements** for energy assessment of dwellings.

AC2.2 analyse the **intention of PAS 2035** in relation to energy efficiency assessments.

AC2.3 explain the **difference** between PAS 2035 and PAS 2030.

AC2.4 outline the **reporting and handover process** for assessment data.

AC2.5 outline **stakeholders** relevant to the PAS 2035 process.

Range

AC2.1 PAS 2035 requirements

- assessment of dwellings for retrofit
- identification and evaluation of improvement options and Energy Efficiency Measures (EEMs)
- design and specification of EEMs
- individual measures or packages of multiple measures
- monitoring and evaluation of retrofit projects

AC2.2 intention of PAS 2035

- improve the insulation of the building fabric
- reduce thermal bridging
- improve the airtightness
- establish a safe moisture equilibrium through the elements of the building fabric
- improve the resilience of the building envelope
- reduce heat loss from ventilation
- minimise the risks associated with vapour
- minimise the risks associated with overheating
- provide efficient heating and cooling systems with low zero carbon (LZC) technologies
- provide efficient water heating systems with responsive controls, including systems that use LZC technologies
- provide efficient fixed lighting, appliances, and equipment with appropriate controls
- reduce electricity use
- minimise internal heat gains
- provide on-site energy storage
- reduce the impact of climate change on the building and the occupant

AC2.3 **difference** between PAS 2035 and PAS 2030

- PAS 2030 focusses on assurance of the quality of the installation process
- PAS 2035 focusses on assuring the quality of the performance of the building as a whole

AC2.4 **reporting and handover process**

- reporting to the retrofit coordinator
- photographic recording
- identification of defects that need to be repaired before any retrofit work can proceed
- identification of defects that are recommended but not an essential prerequisite to retrofit
- confirmation from retrofit coordinator that report contains a sufficient assessment of all necessary elements
- updated assessment report

AC2.5 **stakeholders**

- accreditation bodies
- Association for Environment Conscious Building
- Department for Energy Security and Net Zero
- Department for Science, Innovation and Technology
- Historic England
- Property Energy Professionals Association (PEPA)
- British Standards Institution (BSI)
- Trustmark

Learning outcome

The learner will:

LO3 be able to distinguish between the different types of assessment reports.

Assessment criteria

The learner can:

AC3.1 explain the methodology for the **Standard Assessment Procedure (SAP)**.

AC3.2 explain the methodology for the **Reduced data Standard Assessment Procedure (RdSAP)**.

Range

AC3.1 **Standard Assessment Procedure (SAP)**

- SAP is a desk-based method for new buildings
- asset ratings
- stages of the process
- standard assessment procedure (SAP) calculations
- data input

AC3.2 **Reduced data Standard Assessment Procedure (RdSAP)**

- RdSAP is a method for existing buildings that requires a site visit
- asset ratings
- stages of the process
- reduced data SAP (RdSAP) calculations
- data input
- available retrofit assessor (RdSAP) software

Learning outcome

The learner will:

LO4 be able to create and structure retrofit assessment reports.

Assessment criteria

The learner can:

AC4.1 create a **retrofit assessment report**.

AC4.2 compile an **evidential check list** for the content of a retrofit assessment report.

AC4.3 apply **good practice** for retrofit assessment reporting.

Range

AC4.1 **retrofit assessment report** content:

- retrofit risk assessment (risk pathway A, B or C) and intended outcomes
- the existing Energy Performance Certificate (EPC) and report
- building condition report
- ventilation
- significance survey
- photo evidence
- floor plan

AC4.2 **evidential check list**

- floor plan, including locations of:
 - consumer unit/fuse board
 - extract fans
 - radiators with TRVs, if present
 - Thermostat
 - Area of each room
 - Height of each floor
 - Window position and area/size
 - Boiler/heating system
 - Hot water cylinder (if present)
- photographs of the property as per energy data requirements and PAS assessment requirements, with the addition of:
 - meters
 - consumer unit/fuse board
 - air bricks
 - condition of the joists and rafters
 - damp proof course, or evidence if not present
 - door undercuts, location and depth
 - condition of damp

- all elevations
- internal photographs
- extract fans (internal and external photos)

AC4.3 **good practice** when creating reports:

- double check all measurements
- ensure:
 - filenames/extensions are used appropriately
 - photos are clearly annotated/labelled

Unit 403

Producing retrofit assessment reports for domestic properties

Supporting information

Unit guidance

Learning outcome 1

Learners will develop their ability to produce a building condition report, including how to categorise building condition as part of the retrofit assessment report.

Suggested learning resources:

GOV.UK – Find an energy certificate - [Find an energy certificate - GOV.UK](#)

Learning outcome 2

Learners will develop their understanding of the requirements and intention of PAS 2035 and how retrofit assessments and the role of retrofit assessor function within it.

Suggested learning resources:

British Standards Institution (BSI) - PAS 2035:2023 Retrofitting dwellings for improved energy efficiency – Specification and guidance - [PAS 2035:2023 Retrofitting Dwellings | BSI](#) *

** Always refer to the most up-to date published version*

Learning outcome 3

Learners will develop their understanding of the different types of assessment reports and the procedures used to produce them. Learners will know the main differences in methodology between the Standard Assessment Procedure (SAP) and the Reduced Data Standard Assessment Procedure (RdSAP).

Learning outcome 4

Learners will develop their ability to complete a full retrofit assessment report, ensuring that all necessary information and evidence is included in following best practice. A retrofit assessment report template is available in the [**Candidate Logbook | cityandguilds.com**](#)

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 Assessment: 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.

City & Guilds

For over 140 years, we have worked with people, organisations and economies to help them identify and develop the skills they need to thrive. We understand the life-changing link between skills development, social mobility, prosperity and success. Everything we do is focused on developing and delivering high-quality training, qualifications, assessments and credentials that lead to jobs and meet the changing needs of industry.

We partner with our customers to deliver work-based learning programmes that build competency to support better prospects for people, organisations and wider society. We create flexible learning pathways that support lifelong employability because we believe that people deserve the opportunity to (re)train and (re)learn again and again – gaining new skills at every stage of life, regardless of where they start.

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