



# **Level 2 Technical Award in Constructing and Maintaining the Built Environment (6720-21)**

November 2017 Version 1.0

**Guide to the examination**

## Who is this document for?

This document has been produced for centres who offer **City & Guilds Level 2 Technical Award in Constructing and Maintaining the Built Environment**. It gives all of the essential details of the qualification's external assessment (exam) arrangements and has been produced to support the preparation of candidates to take the exam/s.

The document comprises four sections:

1. **Details of the exam.** This section gives details of the structure, length and timing of the exam.
2. **Content assessed by the exam.** This section gives a summary of the content that will be covered in each exam and information of how marks are allocated to the content.
3. **Guidance.** This section gives guidance on the language of the exam, the types of questions included and examples of these, and links to further resources to support teaching and exam preparation.
4. **Further information.** This section lists other sources of information about this qualification and City & Guilds Technical Qualifications.

## 1. Details of the exam

### External assessment

City & Guilds Technical qualifications have been developed to meet national policy changes designed to raise the rigour and robustness of vocational qualifications. These changes are being made to ensure our qualifications can meet the needs of employers and Higher Education. One of these changes is for the qualifications to have an increased emphasis on external assessment this is why you will see an external exam in each of our Technical qualifications.

An external assessment is an assessment that is set and/or marked by the awarding organisation (ie externally). All City and Guilds Technical qualifications include an externally set and marked exam. This must be taken at the same time by all candidates who are registered on a particular qualification. We produce an exam timetable each year. This specifies the date and time of the exam so you can plan your delivery, revision and room bookings/PC allocation in plenty of time.

The purpose of this exam is to provide assurance that all candidates achieving the qualification have gained sufficient knowledge and understanding from their programme of study and that they can independently recall and draw their knowledge and understanding together in an integrated way. Whilst this may not be new to you, it is essential that your learners are well prepared and that they have time to revise, reflect and prepare for these exams. We have produced a Teaching, Learning, and Assessment guide that is you should refer to alongside the present document ([Teaching, Learning and Assessment Guide](#)). If a learner does not pass the exam at their first attempt, there is only one opportunity to resit the exam, so preparation is essential.

### Exam requirements of this qualification

#### Constructing and Maintaining the Built Environment – Theory exam (2 hours).

The exam is graded and a candidate must achieve at least a Pass grade in order to be awarded the qualification. (In addition to the exam, a synoptic assignment must also be completed and passed). You can find full details of the synoptic assignment in the Qualification Handbook and the Synoptic Assessment Guide -please see the link to the qualification page at the end of this document).

#### When does the exam take place?

This qualification is typically delivered over two years. The exam is offered on two fixed dates in March or June. The exact dates will be published at the start of the academic year in the Assessments and Exam Timetable <http://www.cityandguilds.com/delivering-our-qualifications/exams-and-admin>.

In order to effectively plan teaching and exam preparation, centres should know when the exam will be taking place and allocate teaching time accordingly. Section 2 of this document gives a summary of the content that needs to be covered in order to prepare learners for the exam and full details of this are given in the Qualification Handbook.

#### Form of exam

The exam for this qualification can be taken either on paper (6720-502) or online (6720-002).

### Can candidates resit the exam?

Candidates may resit the exam once only. If a candidate fails the exam both on the first attempt and when resitting it, that candidate has failed the qualification and cannot achieve it in that academic year.

### How the exam is structured

Each exam has a total of 60 marks available.

Each exam is made up of:

- approximately 10 -14 short answer questions
- 1 extended response question.

Short answer questions are used to confirm **breadth of knowledge and understanding**.

The extended response question is to allow candidates to demonstrate **higher level and integrated understanding** through written discussion, analysis and evaluation. This question also ensures the exam can differentiate between those learners who are 'just able' and those who are higher achieving.

More details about and examples of question types are given in Section 3 of this document.

### Assessment Objectives

The exams are based on the following set of assessment objectives (AOs). These are designed to allow the candidate's responses to be assessed across the following three categories of performance:

- **Recollection** of knowledge.
- **Understanding** of concepts, theories and processes.
- **Integrated application** of knowledge and understanding.

In full, the assessment objectives covered by the exam for this qualification are:

Assessment objective	Mark allocation (approx %)
<i>The candidate..</i>	
AO1 <b>Recalls knowledge</b> from across the breadth of the qualification	48%
AO2 <b>Demonstrates understanding</b> of concepts, theories and processes from a range of learning outcomes.	37%
AO4 <b>Applies knowledge, understanding and skills</b> from across the breadth of the qualification in an integrated and holistic way to achieve specified purposes.	15%

## **Booking and taking the exam**

All assessments for City & Guilds Technical Exams must be booked through Walled Garden. There is a deadline for booking exams, synoptic assessments and any other centre marked assessments, please refer to the time line to check these dates.

The exam must be taken under the supervision of an invigilator who is responsible for ensuring that it is conducted under controlled conditions. Full details of the conditions under which the exam must be taken can be found in the Joint Council for Qualifications (JCQ) document, [Instructions for Conducting Examinations \(ICE\)](#).

## **Special consideration**

Candidates who are unable to sit the exam owing to temporary injury, illness or other indisposition at the scheduled time may qualify for special consideration. This is a post-examination adjustment that can, in certain circumstances, be made to a candidate's final grade. The Joint Council for Qualifications' guide to the special consideration process can be found at [www.jcq.org.uk](http://www.jcq.org.uk).

To make a request for special consideration, please contact: [policy@cityandguilds.com](mailto:policy@cityandguilds.com)

## **Access arrangements**

Access arrangements are arrangements that allow candidates with particular requirements, disabilities or temporary illness to take assessments, where appropriate, using their normal way of working. The Joint Council for Qualifications document, *Access Arrangements and Reasonable Adjustments* gives full details and can be downloaded [here](#).

For further information and to apply for access arrangements please see:

[Access arrangements - When and how applications need to be made to City & Guilds](#)  
[Applying for access arrangements on the Walled Garden](#)

## 2. Content assessed by the exam

### Constructing and maintaining the Built Environment

The exam assesses:

- **Unit 201:** Working in the built environment
- **Unit 202:** Using tool to create the built environment
- **Unit 203:** Maintenance, repair and refurbishment of buildings
- **Unit 204:** Using tools to construct and maintain buildings

Each exam assesses a sample of the content of these units. This means that a single exam will not cover 100% of the unit content. The full range of content will be assessed over a number of examination series. Details of the coverage of a particular exam paper will not be released in advance of the exam itself. Centres should not make assumptions about what will be assessed by a particular exam based on what has been covered on previous occasions. In order to be fully prepared for the exam, learners must be ready to answer questions on any of the content outlined below.

The table below provides an overview of how the qualification's Learning Outcomes are covered by each exam and the number of marks available per Learning Outcome (ie not the number of questions per Learning Outcome). In preparing candidates for the exam, we recommend that centres take note of the number of marks allocated to Learning Outcomes and to assign teaching and preparation time accordingly.

In preparing candidates for the exam, centres should refer to the Qualification Handbook which gives full details of each Learning Outcome.

The following is a summary of only that qualification content which is assessed by the exam and not a summary of the full content of the qualification.

Unit	Learning outcome	Topics	Number of marks
201 Working in the built environment	LO1 Understand the structure of the construction and built environment industry	1.1 Range of work and types of organisation 1.2 Types of client	6
	LO2 Understands how construction projects are planned	2.1 Roles and responsibilities in construction projects 2.2 Interactions between individuals in construction 2.3 Planning construction projects	
202 Using tool to create the built environment	LO1 Understand substructure processes	1.1 Site preparation 1.2 Excavations and foundations 1.3 Building services	18
	LO2 Understand superstructure processes	2.1 External walls 2.2 Floors 2.3 Roofs	
	LO3 Understand internal construction processes	3.1 Partitions 3.2 Wall and floor finishes 3.3 Fixtures and fittings	
	LO4 Understand the properties of construction materials	4.1 Construction and building services materials in general use 4.2 Properties of construction materials	

203 Maintenance, repair and refurbishment of buildings	LO1 Understand the characteristics of repair, maintenance and refurbishment of buildings	1. 1 Reasons for property repair and maintenance 1.2 Reasons for property refurbishment	14
	LO2 Understand the methods used to repair, maintain and refurbish buildings	2.1 Types of maintenance and repair 2.2 Sources of information used in the maintenance and repair of buildings	
	LO3 Recommend actions for the repair, maintenance and refurbishment of buildings	3.1 Sources of information to recommend actions 3.2 Planning repair, maintenance refurbishment of buildings	
204 Using tools to construct and maintain buildings	LO1 Understand the work carried out by construction and building services craft operatives	1.1 Work carried out by construction and building services craft operatives	13
	LO2 Understand how to work safely on construction projects	2.1 Legislation in the construction industry 2.2 Sources of information to support safe working practices	
	LO3 Develop technical skills required for construction craft tasks	3.1 Tools, equipment, materials and PPE 3.2 Perform construction craft tasks	
Total marks for sections:			51 marks
Integration across units*:			9 marks
Total marks for exam:			60 Marks



\* Integration across units. These marks relate to Assessment Objective 4). These marks are awarded to differentiate between levels of performance by candidates taking the exam. The marks are given for how well a candidate has applied their knowledge, understanding and skills from across the units that make up the qualification in an integrated way to meet the requirements of the exam questions.

### 3. Guidance

#### Vocabulary of the exam: use of 'command' verbs

The exam questions are written using 'command' verbs. These are used to communicate to the candidate the type of answer required. Candidates should be familiarised with these as part of their exam preparation.

The following guidance has been produced on the main command verbs used in City & Guilds Technicals exams.

A more detailed version of this table, which also includes the command verbs used in the assignments is published in City & Guilds Technical Qualifications Teaching, Learning and Assessment guide.

Command verb	Explanation and guidance
Analyse	Study or examine a complex issue, subject, event, etc in detail to explain and interpret, elements, causes, characteristics etc
Calculate	Work out the answer to a problem using mathematical operations
Compare (... and contrast) (or describe the similarities/differences)	Consider and describe the similarities (and differences) between two or more features, systems, ideas, etc
Define	Give the meaning of, technical vocabulary, terms, etc.
Describe	Give a detailed written account of a system, feature, etc (..the effect of... on...) the impact, change that has resulted from a cause, event, etc (..the process..) give the steps, stages, etc
Differentiate between	Establish and relate the characteristic differences between two or more things, concepts, etc
Discuss	Talk/write about a topic in detail, considering the different issues, ideas, opinions related to it
Distinguish between	Recognise and describe the characteristic differences between two things, or make one thing seem different from another
Evaluate	Analyse and describe the success, quality, benefits, value, etc (of an end product, outcome, etc )
Explain	Make (a situation, idea, process, etc) clear or easier to understand by giving details, (..how..) Give the stages or steps, etc in a process, including relationships, connections, etc between these and causes and effects.
Give example(s) illustrate/	Use examples or images to support, clarify or demonstrate, an explanation, argument, theory, etc
Give a rationale	Provide a reason/reasons/basis for actions, decisions, beliefs, etc

Identify	Recognise a feature, usually from a document, image, etc and state what it is
Justify	Give reasons for, make a case for, account for, etc decisions, actions, conclusions, etc, in order to demonstrate why they suitable for or correct or meet the particular circumstances, context
Label	Add names or descriptions, indicating their positions, on an image, drawing, diagram, etc
List	Give as many answers, examples, etc as the question indicates (candidates are not required to write in full sentences)
Name	Give the (technical) name of something
Propose	Present a plan, strategy, etc (for consideration, discussion, acceptance, action, etc).
Select	choose the best, most suitable, etc, by making careful decisions
State	Give the answer, clearly and definitely
Summarise	Give a brief statement of the main points (of something)

## Question types

The following explains, and gives examples of, types of questions used in City & Guilds Technical exams. In preparing candidates to take the exam, it is recommended that you familiarise them with the requirements of each question type so that they can be effective and make best use of the time available when sitting the exam.

An effective candidate will gauge the type and length of response required from the question and the number of marks available (which is given for each question on the exam paper).

Short answer questions may not require candidates to write in complete sentences. Extended response questions will require a more developed response.

Candidates should read the exam paper before attempting to answer the questions and should allocate time proportionate to the number of marks available for each question or section.

Question type:	Example questions	Mark Scheme:
Short answer questions (restricted response) These are questions which require candidates to give a brief and concise written response. The number of marks available will correspond to the number of pieces of information/examples and the length of response required by the question.	List <b>three</b> reasons why a building may need to be refurbished.  (3 marks)	Any <b>three</b> from the following, <b>maximum of three</b> marks: <ul style="list-style-type: none"><li>• Maintenance aesthetics.</li><li>• Enhance cost/ value.</li><li>• Meet standards.</li><li>• Previously derelict.</li><li>• Change in legislation.</li><li>• Change in usage.</li></ul>
	Describe <b>two</b> roof coverings used on domestic buildings.  (4 marks)	Any <b>two</b> of following at <b>one</b> mark for identification and <b>one</b> mark for a brief description of each. Slate ( <b>1 mark</b> ) expensive nowadays but occurs naturally and needs little or no preparation ( <b>any one for 1 mark</b> ).

Tiles **(1 mark)** reasonably priced but have to be manufactured from clay or concrete **(any one for 1 mark)**.

Acrylic/vinyl **(1 mark)** plastics made from oil, easy to use but less attractive than slates and tiles **(any one for 1 mark)**.

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### **Extended response questions**

Extended response questions are those that require the candidate to write a longer written response using sentences and paragraphs. These usually require candidates to discuss, explain, etc. a topic in some detail. The question is often based on a short case study, scenario or other prompt. The level of detail should be gauged from the question and the number of marks available.

Example question

A site manager has the responsibility for site clearance on a new project and the excavation needed for the foundations.

Discuss the procedures and techniques to be used and any issues to be considered.

(9 marks)

### **Mark scheme**

#### **Indicative content**

Roles and responsibilities in the construction industry, planning construction projects, site preparation, site clearance and layout, access, storage, accommodation, temporary services, excavation to surface strip, cut and fill, trenches and safe trench support techniques, foundations.

**Band 1 (0-3 marks)**

Answer:

The candidate has identified a limited number of procedures and techniques without linking these to the task in hand and has briefly described the issues associated with such procedures and techniques. In order to access the higher marks in the band the candidate must refer to both site clearance and excavation, give correct examples of the processes involved in each and described the standard methods used to ensure safe excavation.

**Example band 1 response**

A site manager has to remove all the trees and bushes so he calls a landscaper then if there are any chemicals on the site they will have to be removed. If there are still left over bits of a building that have been left, the manager will need a skip and then have someone take it away. He will need to remove any leftover pipework in the ground. The manager will have to have an entry way for people to get in and take things out. The manger will need a digger to level out the site and to dig foundations.

**Band 2 (4 – 6 marks)**

The candidate has identified and described a wide range of procedures and techniques, has linked these to the task in hand and has described a range of issues associated with such procedures and techniques. In order to access the higher marks in the band the candidate must refer to both site clearance and excavation, describe a range of procedures to be used in each case, and explain the different issues that are raised by both processes, including efficient use of resources and health and safety.

**Example band 2 response**

In order for site clearance to be started on a new project procedures need to have taken place. First of all the site must be fenced off by hoardings to stop the public from entering the site. Whilst onsite, all operatives and staff must be wearing the required PPE to ensure their safety. Site clearance for example; demolition needs to be handled in the correct manor and signage must be visible to everyone to ensure that all operatives and staff are aware of warnings, safe conditions and prohibitions. Depending on the sites type of soil high baring capacity or low bearing capacity depends on what foundation needs to be used and also depends on how deep the excavations need to be.

**Band 3 (7 – 9 marks)**

The candidate has identified and described a comprehensive range of procedures and techniques, has provided an in-depth link between these and the task in hand and has described the full range of issues associated with such procedures and techniques. In order to access the higher marks in the band the candidate must link all of the procedures, methods and safe working practices described in their response to the role of the site manager in the project.

**Example band 3 response**

First of all the site manager would need to plan what procedures and what techniques are going to be used for example; he will plan what foundation and how they are getting the concrete in safely. He would do this by doing a site induction to all new works but before the foundations were put in he would need to clear the site and take 12 cm off top soil to ensure a clean site. He would also need to do a toolbox talk to ensure that all the issues that could happen, how to work and behave on site are communicated. The site manager would also need to secure the site and make it safe by putting hoardings and temporary fencing. He would also need to organise temporary services for things like welfare facilities which may include; w/c and warm/cold water. However before the site starts excavating he would need to check if there are any services, electricals, sewage and water. If there are already services he would have to get professionals to cut them at the mains so that the excavation can go smoothly and not interfere with old existing services, this will ensure a safe environment and work place as long as a toolbox talk has taken place and workers understand the site rules and safety precautions.

## Examination technique

Candidates with a good understanding of the subject being assessed can often lose marks in exams because they lack experience or confidence in exams or awareness of how to maximise the time available to get the most out of the exam. Here is some suggested guidance for areas that could be covered in advance to help learners improve exam performance.

### Before the exam

Although candidates cannot plan the answers they will give in advance, exams for Technical qualifications do follow a common structure and format. In advance of taking the exam, candidates should:

- be familiar with the structure of the exam (ie number and type of questions).
- be aware of the amount of time they have in total to complete the exam.
- have a plan, based on the exam start and finish time for how long to spend on each question/section of the exam.
- be aware of how many marks are available for each question, how much they should expect to write for each question and allow most time for those questions which have the most marks available.

### At the start of the exam session

At the start of the exam, candidates:

- should carefully read through the exam paper before answering any questions.
- may find it helpful, where possible, to mark or highlight key information such as command words and number of marks available on the question paper.
- identify questions which require an extended written answer and those questions where all or part of the question may be answered by giving bullets, lists etc rather than full sentences.

### Answering the questions

Candidates do not have to answer exam questions in any particular order. They may find it helpful to consider, for example:

- tackling first those questions which they find easiest. This should help them get into the 'flow' of the exam and help confidence by building up marks quickly and at the start of the exam.
- tackling the extended answer question at an early stage of the exam to make sure they spend sufficient time on it and do not run out of time at the end of the exam.

Candidates should avoid wasting time by repeating the question either in full or in part in their answer.

Candidates should **always** attempt every question, even questions where they may be less confident about the answer they are giving. Candidates should be discouraged however, from spending too long on any answer they are less sure about and providing answers that are longer and give more detail than should be necessary in the hope of picking up marks. This may mean they have less time to answer questions that they are better prepared to answer.

### Extended answer questions

Before writing out in full their answer to extended questions, candidates may find it helpful to identify the key requirements of the question and jot down a brief plan or outline of how they will answer it. This will help clarify their thinking and make sure that they don't get 'bogged down' or provide too much detail for one part of the question at the expense of others.



## **Towards the end of the exam**

Candidates should always set aside time at the end of the exam to read back through and review what they have written in order to make sure this is legible, makes sense and answers the question in full.

If a candidate finds they are running out of time to finish an answer towards the end of the exam, they should attempt to complete the answer in abbreviated or note form. Provided the content is clear and relevant, examiners will consider such answers and award marks where merited.

Further guidance on preparing candidates to take the exam is given in the City & Guilds publication, [Technical Qualifications, Teaching, Learning and Assessment](#) which can be downloaded free of charge from City & Guilds website.

## 4. Further information

For further information to support delivery and exam preparation for this qualification, centres should see:

### City & Guilds

Qualification homepage: <https://www.cityandguilds.com/qualifications-and-apprenticeships/construction/construction/6720-technical-in-constructing-the-built-environment#tab=information> which includes:

- *Qualification handbook*
- *Synoptic assignment*
- *Sample assessments*

Technical Qualifications, Resources and Support: [www.cityandguilds.com/techbac/technical-qualifications/resources-and-support](http://www.cityandguilds.com/techbac/technical-qualifications/resources-and-support)

### Joint Council for Qualifications

Instructions for Conducting Examinations: <http://www.jcq.org.uk/exams-office/ice---instructions-for-conducting-examinations>