

# **T Level Technical Qualification in Building Services Engineering for Construction (8710-30)**

**Employer-Set Project – Centre Guidance**

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## Introduction

The Employer-Set Project assessment is a project made up of a number of tasks, based on a real-life work-based problem. The assessment is designed to allow candidates to show how they can tackle problems using the Core knowledge and skills.

This approach to assessment emphasises to candidates the importance and applicability of the full range of their learning to industry practice.

The project is based around a brief which provides information on a construction project and specific relevant details and resources. Candidates have to draw on their Core knowledge and skills and independently select the correct processes and approaches to take to provide a solution and the evidence specified in the project brief.

During the learning programme, it is expected that tutors will have taken the opportunity to set shorter, formative tasks that allow candidates to independently use the learning they have covered so far. Experience of drawing information together from across the Core will help prepare candidates so they are familiar with the expectations of the Employer-Set Project.

Candidates should be made aware during learning of what the Assessment Objectives (AOs) are and how they are implemented in marking the project, so they will understand the level of performance that will achieve high marks. Details of the AOs can be found in the qualification specification document.

Candidates should not be entered for the assessment until they have covered all the knowledge covered in the Core content of the qualification, so they are in a position to complete the project assessment successfully.

### Task schedule summary

The tasks within the project are designed to be scheduled and taken in order, due to the dependency of evidence being generated in one task being used by candidates in the next. For example, the research reference materials produced in task 1.1 are required for completion of task 1.2, therefore task 1.1 must be completed before task 1.2 can be attempted.

Task		Conditions	Evidence produced	Evidence submitted?	* Timings
1.1	Research	Supervised/ controlled	Research notes, record of sources	Yes	3 hours
1.2	Report	Supervised/ controlled	Report Record of sources	Yes	6 hours
1.3	Project plan	Supervised/ controlled	Programme of work and supporting statement	Yes	3 hours
1.4	Presentation	Supervised/ controlled	Video recording of presentation Presentation materials – e.g. slides, handouts etc. Assessor observation record	Yes	2 ½ hours
2.1	Collaborative problem- solving	Supervised/ controlled	Video recording of discussions Written discussion notes Email draft Assessor observation record	Yes	1 ½ hours
2.2	Evaluation	Supervised/ controlled	Evaluation account	Yes	1 hour
<b>Total timing</b>					17 hours

#### \*Note on timings

- Task 1.2 – the six hours allocated for this task can be split into two three-hour sessions to aid manageability if necessary. If this is the case, candidates work must be retained and held securely between sessions.
- Task 1.4 Presentation – two hours of the allocated time for this task is for preparation of the presentation, the remaining half an hour is for the presentation itself and responding to questions.

- Task 2.1 Collaborative problem-solving – half an hour of the allocated time for this task is for group discussions, the remaining hour is for completion of the written draft recommendation.

### Compliance with timings

The timings provided with in the project must be adhered to. They refer to assessment time, not any additional setting up the centre needs to carry out to create an appropriate assessment environment. It is the centre's responsibility to plan sufficient assessment sessions, under appropriate conditions, within the Employer-Set Project assessment window, to allow candidates reasonable time to complete the assessment tasks.

### Assessment windows and timetabling

Details of assessment windows and approach to timetabling is detailed within the associated TQ specification document.

### Observation evidence

The sections in each task:

- ***What you must submit on completion of this task*** and
- ***Additional evidence of your performance that must be captured for marking***

list the minimum requirements of evidence to be submitted for external marking.

For tasks 1.4 and 2.1, observation record form part of the candidate's evidence and must describe **how well** the project presentation has been carried out, rather than stating the specific points the candidate has covered. The notes must be descriptive and focus on the **quality** of the presentation in such a way that comparisons between performances can be made. They must provide sufficient, appropriate evidence that can be used by the marker (to mark the performance using the marking grid. As far as possible, candidates should not be distracted, or their performance affected by the process of observation and evidence collection.

Before assessing task 1.4, tutors should read through the marking grid to ensure they are clear about the points they should be looking for when observing. Identifying **what it is** about presentations that is **different** between candidates can clarify the qualities that are important to record. Each candidate may cover similar points within their projects and presentations, so a checklist of this information would not help differentiate between them. However, qualitative comments on **how well** they respond to the project brief would.

The tutor should refer to the marking grid to ensure appropriate aspects are recorded. These notes will be used for marking purposes and so must be **detailed, accurate** and **differentiating**. After completing the observation, the tutor should look again at the marking grid to ensure they have referred to all relevant aspects.

Centres have the flexibility to determine the most appropriate means of completing their observation notes (e.g. a tablet, handwritten), however this should not restrict the quality of the notes.

It should be clear from supporting video evidence which candidate it is attributed to, e.g. by the candidate stating their name during the introduction or the video file name including the name and candidate number.

Guidance documents on marking are available on the City & Guilds website. These provide further information on preparing for assessment, evidence gathering, standardisation,

marking and moderation, and must be referred to when planning and carrying out assessment.

While technological methods which support the capturing or creating of evidence can be helpful, the final evidence must be converted to a suitable format for marking and moderation which cannot be lost/ deleted or amended after the end of the assessment period (e.g. screen prints, pdf files). Considerations around tracking authenticity and potential loss of material hosted on such platforms during assessment is the centre's responsibility.

Where the minimum requirements have **not been submitted** for marking or the **quality of evidence is insufficient** to make a judgement, any judgment will be based on the evidence that *has* been submitted. **Where this is insufficient to provide a mark, a mark of zero may be given.**

### **Preparation of candidates**

Candidates should be aware of which aspects of their performance (across the AOs) will give them good marks in assessment. This is best carried out through routinely pointing out good or poor performance during the learning period, and through formative assessment.

During the learning programme, direct tutor instruction in how to tackle practical tasks through modelling, support, guidance and feedback are critical. However gradual removal of this support is necessary in preparation for summative assessment. This, supported approach is **not** valid for summative assessment.

The purpose of summative assessment is to confirm the standard the candidate has reached as a result of participating in the learning process. Candidates should be encouraged to do the best they can and be made aware of the difference between these summative assessments and any formative assessments they have been subject to. Candidates may not have access to the full marking grids during the assessment, as these may be misinterpreted as pass, merit, distinction descriptors.

### **Guidance on assessment conditions**

The assessment conditions that are in place for this Employer-Set Project are to:

- ensure the rigour and consistency of the assessment process
- provide fairness for candidates
- give confidence in the outcome.

They can be thought of as the rules that ensure that all candidates who take an assessment are being treated fairly, equally and in a manner that ensures their result reflects their true ability.

These conditions do not affect any formative assessment work that takes place, although it is advised that candidates are prepared for the conditions they will need to work under during summative assessment.

The evidence for the tasks that make up this Employer-Set Project must be completed under the specified conditions. This is to ensure authenticity and prevent malpractice as well as to assess and record candidate performance for assessment. Any aspect that may be undertaken in unsupervised conditions is specified. It is the centre's responsibility to ensure that local administration and oversight gives the tutor sufficient confidence to be able to confirm the authenticity of the candidate's work.

## Security and authentication of candidate work

Candidate evidence must be kept secure to prevent unsupervised access by the candidate or others. Where evidence is produced over a number of sessions, the tutor must ensure candidates and others cannot access the evidence without supervision. This might include storing written work or artefacts in locked cupboards and collecting memory sticks of evidence produced electronically at the end of each session.

After the production of evidence, both the tutor and candidate must sign declarations of authenticity.

**Where the candidate or tutor is unable to or does not confirm authenticity through signing a declaration form (see Appendix 1), the work will not be accepted for marking and a mark of zero will be given. If any question of authenticity arises e.g. at moderation, the centre may be contacted for justification of authentication.**

## Accessibility and fairness

Where a candidate has special requirements, tutors should refer to the *Access arrangements and reasonable adjustments* section of the City & Guilds website.

Tutors can support access where necessary by providing clarification to **any** candidate on the requirements or timings of any aspect of this Employer-Set Project. Tutors should **not** provide more guidance than the candidate needs as this may impact on the candidate's grade – see guidance and feedback section below.

All candidates must be provided with an environment, time frame and resources that allows them reasonable access to the full range of marks available.

## Guidance and feedback

Guidance must only support access to the project and must not provide feedback for improvement. The level and frequency of clarification and guidance must be made available for external marking.

### ***What is, and is not, an appropriate level of guidance***

- A tutor **should intervene with caution** if a candidate has taken a course of action that will result in them not being able to submit the full range of evidence for assessment. However, this should **only** take place once the tutor has prompted the candidate to check that they have covered all the requirements. Where the tutor has to be explicit as to what the issue is, this is likely to demonstrate a lack of understanding on the part of the candidate rather than a simple error, and full details should be recorded for consideration as part of external marking.
- The tutor **should not** provide guidance if the candidate is thought to be able to correct the issue without it, and a prompt would suffice. In other words, only the minimum support the candidate actually needs to be given, since the more tutor guidance provided, the less of the candidate's own performance is being demonstrated and therefore the larger the impact on the marks awarded.
- A tutor **must not** provide guidance that the candidate's work is not at the required standard or how to improve their work. In this way, candidates are given the chance to identify and correct any errors on their own, providing valid evidence of knowledge that will be credited during marking.
- The tutor **must not** produce any templates, pro-formas, work logs etc. unless instructed to in the assessment guidance. Where instructed to do so, these materials must be produced as specified and contain no additional guidance. Templates provided as part of the assessment should be used as provided, and not adapted.

**All** specific prompts and details of the nature of any further guidance must be recorded on the relevant recording form and submitted for external marking.



## Overview of task requirements

Conditions	Task					
	1.1	1.2	1.3	1.4	2.1	2.2
Candidates will have access to a computer with word processing software	✓	✓	✓	✓	✓	✓
Candidates will have access to the Internet	✓					
Candidates will have access to the project brief document	✓	✓	✓	✓	✓	✓
All work must be completed independently	✓	✓	✓	✓		✓
During any breaks, all materials must be kept securely	✓	✓	✓	✓	✓	✓
Candidate work will be saved securely for return to the candidate for use in future tasks*	✓	✓	✓	✓	✓	
Only permitted materials allowed into the supervised session	✓	✓	✓	✓	✓	✓
No assessment materials to leave the room at any point of the assessment	✓	✓	✓	✓	✓	✓

\* Following tasks, work should be saved securely for return to candidates for use in future tasks within this project. This could be facilitated through the use of memory sticks or a specific location on a secure drive for work to be saved on.

## Task-specific requirements and considerations

### Task 1.1

- Candidates should have access to the Internet in order to conduct research.
- Research notes are likely to cover approximately 3 sides of A4.
- Candidates should be reminded to keep a record of their sources.

### Task 1.2

- Candidates should be reminded to include details of sources referenced. Sources and references are not included in the minimum 1,500 word count.
- To aid deliverability and manageability of assessment, sessions can be split – for example where timetabling of an appropriate location for six hours is not possible, where centres access to computer resources is limited, or where candidates are not available for six consecutive hours (e.g. due to work placement commitments). Where necessary sessions can be timetabled over consecutive days. All candidates are required to complete a declaration of authenticity along with their evidence submission.
- If the six-hour session is broken into two three-hour sessions, candidates work must be retained and held securely between sessions.

### Task 1.3

- A programme of work template is available to support candidates in this task. Candidates should be encouraged to use the template, or at very least review it;

however, they do not **have** to use it. It is acceptable for their plan to be presented in an industry recognised format of their choice.

- The supporting statement is likely to be approximately 750 words.

#### Task 1.4

- Candidates do not have to use technology to present their findings, but this is encouraged. Candidates can choose the format/program they want to use for their presentation (e.g. PowerPoint, Keynote etc).
- Candidates' presentations should be scheduled and timed to include time for questioning following the presentation within the 30 minutes allocation.
- It should be clear to candidates how much time of their presentation time has been used up, for example through the use of a timer, or clarification at the start of the session that their session will end in 30 minutes time (e.g. indicating to candidates on a mutually visible clock and confirming the time the session will end). Where candidates are coming to the end of their allocated 30 minutes and have not yet responded to questions this should be indicated to them.
- It is important that centres consider the impact of cohort size on the scheduling of the presentation task. Larger cohorts may need to be split into two groups in order to accommodate presentations taking place shortly after the preparation session. Where necessary, presentation preparation/delivery sessions can be timetabled over a number of days. All candidates are required to complete a declaration of authenticity along with their evidence submission (be it physical i.e. report, or ephemeral i.e. presentation).
- All candidates must be asked **three** questions following their presentation (probing or clarification question not included). The nature of the questions should relate to the content of their presentation. Questions should be posed from the perspective of a client tendering for a construction project and should allow candidates to expand upon and reinforce points covered in their presentation (Responses to questions generate evidence for the 'AO2b communication')  
Ideally, questions should be contextualised to the individual candidate's presentations but could follow the following structures;
  - *What did you find the most challenging aspect of our tender specification?*
  - *How do you think SMART technologies will benefit this library project?*
  - *What are your ideas on how we could keep costs down on this project?*
  - *What do you feel are the biggest risks for the completion of the SMART technology element of our library project?*
- It is recommended that before the presentation session some time is spent in group discussion to explore the types of questions that would likely be asked in similar real life situations, so that all candidates are prepared and understand that they will have to respond to this type of questioning following their presentation, and so candidates who present earlier in are not seen to be disadvantaged.
- A record of questions asked, and responses must be included in the assessor observation record.
- Video recordings of presentations must be in an appropriate format with audible sound levels, well-lit etc. as per the advice detailed in the observation evidence section above.

#### Task 2.1

- Candidates should be divided into groups of two or three in order to conduct the discussion element of the task.

- Candidates should move directly to drafting the email after the discussions are conducted i.e. both activities should be conducted within the same one and a half hour session.
- Candidates may wish to include suggestions and points raised by others in the group discussion as part of their email draft – this is acceptable; however, the email must be drafted individually and in their own words.
- A record of candidates' discussions, interactions collaboration must be included on the assessor observation record - **in addition** all discussions must be video recorded to support observation records to be completed. Recording must be available for marking purposes and in a suitable format as detailed above.
- The email should be a minimum of 300 words long.

### Task 2.2

- The evaluation account should be a minimum of 750 words long.
- Candidates can structure their evaluation account in the way they feel is most clear and appropriate.

## Maths, English and digital skills

Throughout the completion of the tasks within the project candidates will generate evidence of their maths, English and digital skills as follows:

Task 1.1 Research	Digital skills
Task 1.2 Report	Maths, English and digital skills
Task 1.3 Project plan	Maths skills
Task 1.4 Presentation	English skills
Task 2.1 Collaborative problem-solving	N/A
Task 2.2 Evaluation	English skills

Demonstration of these skills will contribute towards the overall marking of the project as per the AO weightings and marking grid

## Appendix 1 - Declaration of authenticity

<b>Assessment ID</b>	<b>Qualification number</b>
<b>Candidate name</b>	<b>Candidate number</b>
<b>Centre name</b>	<b>Centre number</b>

### Additional Support

Has the candidate received any additional support in the production of this work (Please tick the relevant box)?

No

Yes

If yes, give details below (and on a separate sheet if necessary).

--

### Candidate:

*I confirm that all work submitted is my own, and that I have acknowledged all sources I have used.*

<b>Candidate signature</b>	<b>Date</b>

### Tutor:

*I confirm that all work was conducted under conditions designed to assure the authenticity of the candidate's work, and am satisfied that, to the best of my knowledge, the work produced is solely that of the candidate.*

<b>Tutor signature</b>	<b>Date</b>

**Note:** Where the candidate and/or tutor is unable to or does not confirm authenticity through signing this declaration form, the work will be returned to the centre and this will delay the marking process. If any question of authenticity arises, the tutor may be contacted for justification of authentication.

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