T Level Technical Qualification in Design and Development for Engineering and Manufacturing

Employer-Set Project (8730-035)

Assessor Pack

(Sample)

September 2025 Version 3.0

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Version and date	Change detail	Section
2.0 February 2024	Expanded guidance to reflect that assessors should not develop templates, including CAD templates	Guidance and feedback (p12)
3.0 September 2025	Removal of duplication of provider specific instructions	Full document

Introduction

Purpose and scope

This document **must** be read alongside the **TQ Employer-Set Project Assessment Process Guide**, as this provides details on the preparation and delivery requirements for all Employer-Set Projects (ESPs).

The ESP Assessor Pack is written to provide specific information regarding the Building Services Engineering ESP.

Employer-Set Project

The ESP 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 ESP is based around a brief which provides information on an engineering design requirement 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 that they are familiar with the expectations of the ESP.

Candidates should be made aware during learning of what the Assessment Objectives (AOs) are and how they are implemented in marking the ESP, so that 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 and skills covered in the Core content of the qualification, so that they are in a position to complete the ESP assessment successfully.

Overview of ESP document audience

	Approved audience	
Document	**Provider staff**	**Candidate**
Project brief	✓	✓
Tasks Task 1 – Research Task 2 – Design Task 3 – Plan Task 4 – Present	✓	✓ Under assessment conditions, once the previous task has been submitted
Candidate pack	✓	✓
Assessor pack	✓	✗
Marking grids	✗	✗
Appendix 1 – Declaration of authenticity	✓	✓

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 evidence produced in Task 1 is required for completion of Task 2 therefore Task 1 must be completed before Task 2 can be attempted.

The tasks **must** be issued separately to candidates, but they can retain the project brief throughout the duration of the assessment time. Candidates are **not** permitted to return to tasks after they have been completed within the assessment time.

Task		**Conditions**	**Evidence produced**	**Evidence submitted?**	**Timings**	**Marks available**
1	Research	Supervised/ controlled	Technical brief, research notes, list of references/ sources	Yes	3 hours	15
2	Design	Supervised/ controlled	Sketches and drawings, calculations	Yes	8 hours	24
3	Plan	Supervised/ controlled	Programme of work, supporting statement	Yes	5 hours	18
4	Present	Supervised/ controlled	Presentation materials (slides, handouts, notes etc), video recording of observation	Yes	2.5 hours	24
				Total	18.5 hours	81

Task	Conditions	Evidence produced	Evidence submitted?	Timings	Marks available
				Maths, English and digital skills*	9
				Total marks	90

Note on timings
The timings provided within the project **must** be adhered to. They refer to assessment time, not any additional setting up the provider needs to carry out to create an appropriate assessment environment. It is the provider'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.

Task 2 – The session may be split into two sessions to aid delivery, with the first session being six hours and the subsequent session the remaining two hours. Sessions must be timetabled over consecutive days

Task 4 – The candidate is allocated a two-hour session to create the presentation and half an hour to deliver and answer questions.

Maths, English and digital skills

Throughout the completion of the tasks within the project candidates will generate evidence towards their maths, English and digital skills.

Maths	3 marks available
English	3 marks available
Digital	3 marks available

*Of the marks available for this project, 10% are allocated to maths, English and digital skills, with marks available for allocation across the tasks. For example, evidence from the tasks will be used to allocate 1, 2 or 3 marks for English.

This allows for a holistic approach to the marking of these elements which may be evidenced across the response to the project.

Should the candidate make an error that is further compounded through the inter-dependent nature of the tasks and carry through that error, the external marker would penalise the candidate only once. Candidates can use evaluation within later task responses to address issues they have identified.

Assessment objectives

AO Ref	Assessment Objective
AO1	Plan their approach to meeting the project brief.
AO2	Apply core knowledge and skills as appropriate:
• AO2a	○ core knowledge
• AO2b	○ core skills: **Planning and preparation** e.g. interpret and confirm project requirements; plan and scope project (e.g. timescales, requirements, resources, cost); develop project plans **Communication** e.g. interpret, use and produce engineering representations and drawings (including graphical language or conventions), interpret and use relevant technical information in a range of formats and media, communicate appropriately with technical and non-technical audiences (using appropriate technology, as appropriate) **Develop and manufacture** e.g. design or devise a proposal to meet the brief, develop, model and revise concept(s) **Evaluation** e.g. carry out appropriate tests, evaluation and analysis (at relevant stages), confirm appropriate model for final realisation, testing for suitability, evaluate how well the final product meets the brief (e.g. quality, time, resources, cost).
AO3	Select relevant techniques and resources to meet the brief.
AO4	Use maths, English and digital skills as appropriate:
• AO4a	○ maths
• AO4b	○ English
• AO4c	○ Digital.
AO5	Realise a project outcome and review how well the outcome meets the brief:
• AO5a	○ realise a project outcome – was the right outcome achieved
• AO5b	○ review how well the outcome meets the brief, how well the brief was met, the quality of the outcome in relation to the brief.

Task specific and general requirements

Overview of task requirements

	Task			
Conditions	**1**	**2**	**3**	**4**
Candidates will have access to a computer with relevant software (i.e. word processing, spreadsheets, presentation software) and computer-aided-design (CAD) systems.	✓	✓	✓	✓
Candidates will have access to the internet.	✓	×	×	✓
Candidates will have access to the project brief and candidate guidance.	✓	✓	✓	✓
Candidates will have access to copies of their previous task outputs (for review purposes only).	N/A	✓	✓	✓
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*.	✓	✓	✓	×
No assessment materials are allowed 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.

General requirements

Releasing documents to candidates

- The project brief and associated candidate guidance should be released to candidates at the start of the first scheduled task assessment. Candidates should be provided with 30 minutes of non-assessed time at the start of this session to read and review the brief, before being given the first task. It **must** be made clear to candidates when the 30 minutes of non-assessed reading and review time starts and ends.
- Each task **must** only be released to candidates at the start of the scheduled assessment session for that individual task.
- Each task will provide details of what evidence must be submitted on the completion of the task. Additional evidence which must also be submitted will be detailed within the task.
- Candidates should be advised that approximate word counts, or number of pages have been included within the task guidance in order to act as a guide to support the candidates to complete the tasks. These are intended as a guide only, and there will be no penalisation of marking based on the word count or number of pages that is above or below the indicative guidance provided.

Permitted materials

- Candidates are **not** permitted to bring any existing notes or materials completed prior to the assessment into any of the assessment sessions.
- Candidates **must** be reminded that their work submitted, including drawings, sketches and calculations **must** be legible and appropriately labelled with their name and task reference. Evidence can be either word processed or handwritten. Any electronic evidence produced must have a clear file name and be easily identifiable to the task and candidate.
- Candidates are permitted to have copies of their final evidence from previous tasks in subsequent assessment sessions. The purpose of this evidence is solely to support candidates to refer to previous work. The purpose of providing copies is to ensure that candidates are unable to rework any of their previous responses.

Conditions of assessment

- When working under supervised conditions for longer sessions, breaks can be facilitated outside of the controlled conditions, ensuring the room is locked and all candidates have vacated once the break begins. All materials **must** be kept securely during the break.
- If the task completion runs over more than one session, candidates **must** be reminded that no assessment information can be shared or discussed with other candidates.
- Candidates **must** be made aware that plagiarism is not allowed.
- Candidates **must** be made aware of City & Guilds position on the use of Artificial Intelligence (AI) – see the **Position Statement on AI | City & Guilds**
- Where evidence is created using software which has the potential for cloud-based retrieval or sharing, this feature should be disabled where possible (e.g. in software settings or through restriction of internet connection). Where not possible, candidates **must** be reminded that the evidence submitted for the tasks can only be generated within the scheduled assessment times and also of the implications of sharing or plagiarising from cloud-based content.
- After the production of evidence, both the assessor and candidate **must** sign declarations of authenticity.
- Where the candidate or assessor is unable to or does not confirm authenticity through signing a declaration form, the work will **not** be accepted and a mark of zero will be given. If any question of authenticity arises, the Provider may be contacted for justification of authentication

Task specific requirements

There are no templates or proformas for candidates for completion of the tasks within this version of the ESP.

Task 1

Permitted materials

- The project brief and candidate guidance will be provided to candidates with Task 1.

Conditions of assessment

- Candidates have been provided 30 minutes of additional reading time at the start of Task 1 before they begin the project. This should be used to read the project brief and associated brief documentation and is not included in the assessment time allocated to Task 1. There is no opportunity for candidate questions or assessor answers during this initial 30 minutes – it is solely for reading.
- Candidates will have access to the internet in order to conduct research. See section above on internet access.
- See the **TQ Employer-Set Project Assessment process guide** for guidance on internet access.

What must be submitted on completion of the task

- Technical brief (typically 1500 words) hard copy or file saved securely (e.g. in a secure online location or on memory stick to be handed in).
- List of references/sources.
- Research notes.

Task 2

Permitted materials

- The project brief will be provided to candidates with Task 2.
- A copy of their response from Task 1 will be provided to candidates with Task 2 for reference only (candidates will not be able to make any changes).

Conditions of assessment

- Candidates must **not** have internet access for this task.
- To aid deliverability and manageability of assessment, where necessary sessions can be split – for example where timetabling of an appropriate location for eight hours is not possible, where Providers access to computer or software resources is limited, or where candidates are not available for eight consecutive hours (e.g. due to work placement commitments). In such cases the eight hours can be split into one session of six hours followed by a subsequent session of the remaining two hours. (The split of six hours for the first session, and two hours for the second session **must** be adhered to and is designed to reduce the opportunity for candidate re-work across sessions). Sessions must be timetabled over consecutive days. All candidates are required to complete a 'Declaration of authenticity' along with their evidence submission. This declaration formally confirms that the assessment has been conducted within the conditions and assessment windows set by the awarding body.
- If the eight-hour session is broken into two sessions, candidates work **must** be retained and held securely between sessions.

What must be submitted on completion of the task

- Candidates should be reminded that their drawing submissions should include both initial sketches and fully realised designs.

- The drawings evidence including CAD drawings will typically be four A3 size drawings.
- Supporting calculations will typically be one side of A4.
- Notes detailing how the design meets the brief requirements will typically be 500 words.

Task 3

Permitted materials

- The project brief will be provided to candidates with Task 3.
- A copy of their responses from Task 1 and Task 2 will be provided to candidates with Task 3 for reference only (candidates will not be able to make any changes).

Conditions of assessment

- Candidates must **not** have internet access for this task.

What must be submitted on completion of the task

- Programme of work plans can be presented in an industry recognised format of the candidate's choice (typically one side of A4).
- The supporting statement will typically be 1000 words.

Task 4

Permitted materials

- The project brief will be provided to the candidate with Task 4.
- A copy of their response from Task 2 will be provided to the candidate with Task 4 for reference only (candidates will not be able to make any changes).

Conditions of assessment

- Candidates must have access to the internet.
- Candidates **must** use digital technology to present their findings. Candidates can choose the format or program they want to use for their presentation (e.g. PowerPoint etc).
- Candidates have two hours to prepare for this presentation. This includes preparing the presentation materials and practicing the delivery of the presentation.
- Candidates' presentations should be scheduled and timed to include time for questioning after the presentation within the 30 minutes allocated. As detailed in the task the time should typically be split, with 20 minutes for the presentation and 10 minutes for responding to questions.
- It should be clear to candidates how much of their presentation time has been used up, for example through the use of a timer or clarification as they start, that their session will end in 30 minutes (e.g. indicating a mutually visible clock and confirming the time the session will end). Where a candidate is coming to the end of their allocated time and have not yet started the questioning element of the presentation or responded to questions, this should be indicated to them.
- It is important that Providers 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 or delivery sessions can be timetabled over a number of days.

- All candidates are required to complete a declaration of authenticity along with project evidence submission (be it physical, i.e. written or drawn, or ephemeral i.e. the presentation).
- The presentation **must** take place in a room which is quiet and free from distractions and there is not the risk of others walking in/interrupting the presentation.
- Candidates **cannot** observe other candidates' presentations.

Question and answers

- All candidates **must** be asked three questions following their presentation (probing or clarification questions not included). The questions should relate to the content of their presentation.
- Questions should be posed from the perspective of the presentation audience as outlined in the task (e.g. client, or end customer) and should allow candidates to expand upon and reinforce points covered in their presentation (candidates' responses to questions generate evidence for 'AO2b Communication'). It is also an opportunity to generate evidence of the candidate's ability to review and realise the project outcome (AO5a and AO5b), evaluating their own performance
- Questions **must** be contextualised to the individual candidate's presentation and should be in in line the following examples:
    - o *What did you find the most challenging aspect of our brief?*
    - o *What are your ideas on how we could keep costs down?*
    - o *What do you feel are the biggest risks to ensuring the project duration requirements are met?*
    - o *If we needed to double our order, how would this impact your manufacturing proposal?*
    - o *What is the most problematic part about the ongoing maintenance of the design?*
    - o *How sustainable is the proposed design?*
- Those asking the questions may indicate whether the question is being posed from a technical or non-technical perspective (this may influence the detail, wording and other aspects of the candidate's response).
- Tutors must use only open questions to try and further explore the candidate's solution, allowing the candidates to elaborate within their responses. Closed questions which elicit a straightforward answer of 'Yes/No' must **not** be used. Tutors should be curious to further explore the candidates understanding and have awareness of any conscious or unconscious bias they may have due to the relationship with the candidate.
- The presentation and questioning will be recorded on video; however, a record of questions asked, and responses given must be included on the 'Presentation Q&A Record'. It is recommended practice for a written record of assessor questions asked, and responses made, to be noted and provided alongside the candidate's evidence for this task.
- Types of questions that candidates will face should be covered as part of course delivery. This will ensure that candidates are as prepared as they can be when faced with this type of assessment.

Conditions of assessment

- Video recordings of presentations must be in an appropriate format with audible sound levels, proper lighting and so forth, as per the advice detailed in the observation evidence section of the **TQ Employer-Set Project Assessment Process Guide**.

Appendix 1

Declaration of authenticity

Assessment ID	Qualification number
Candidate name	**Candidate number**
Provider name	**Provider number**

Additional Support

Has the candidate received any additional support in the production of this work?

No ☐ **Yes** ☐ (Please tick appropriate)

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, including any use I have made of artificial Intelligence (AI) tools.

Candidate signature	Date

Assessor:

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.

Assessor signature	Date

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