T-LEVELS | Institute for Apprenticeships & Technical Education

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

8710-033 Core: Employer-Set Project

Project Brief

Summer 2023

City & Guilds | eal

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Project brief

The employer

Renewable Retrofit Ltd is an established retrofit contractor with branches throughout the UK.

Renewable Retrofit Ltd employs retrofit advisors, assessors, co-ordinators, designers and evaluators in all of its branches.

Each branch has specialists so that the company is able to work on many building types, including domestic dwellings, commercial, industrial and community buildings. You are part of the community building team.

The project

Renewable Retrofit Ltd has been approached by a prospective client (sports committee) with proposals to retrofit an existing sports pavilion. The project will need to be completed within a three-month window during the winter months.

The site plan shows a sports pavilion which includes all the facilities for the site, including a café/bar, main hall, toilets and changing rooms. Also included on the site are football pitches, a cricket green and tennis courts.

Located behind the pavilion is a large plot of unused land, approximately 400 m^2, which borders the local moors and countryside.

Client specification

Due to increasing costs of fossil fuels, the client is very keen to utilise carbon neutral technologies to ensure the efficient use of energy and reduce operating costs. The client has expressed an interest in ground source heat pump technologies as a possible alternative to traditional fossil fuels, due to the government grants currently available to support them financially.

Due to expected increases in building use in the coming years, the client would also like to explore the use of water conservation technologies for the facilities within the pavilion, including both rainwater and greywater reuse systems and the inclusion of:

- Non concussive taps
- Low-volume flush WCs
- Flow reducing valves
- Point of use infrared taps and WC flushing

The sports pavilion has had minor upgrades on a number of occasions throughout its lifetime and the client has advised that there are a significant number of redundant services still in existence. These include both water and electricity that will require removal and disposal.

Drawings

Your tutor can provide full-size (A3) copies of the drawings, as necessary.

Building layout plan

Location site plan and elevations

Get in touch

City & Guilds Technicals Quality Team

We are here to answer any queries you may have regarding your T Level Technical Qualification delivery.

Should you require assistance, please contact us using the details below:

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