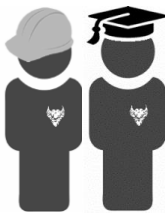


# Design, Engineer, Construct! Level 2:

## 2. The candidate will be able to formulate a project brief



Unit	Incomplete (U)	Secure (C)	Exceptional (A)	Comments:
1.2.1				
1.2.2				
1.2.3				

**Name:** Jack Littlewood

**Date:**

**Deadline for Submission:**

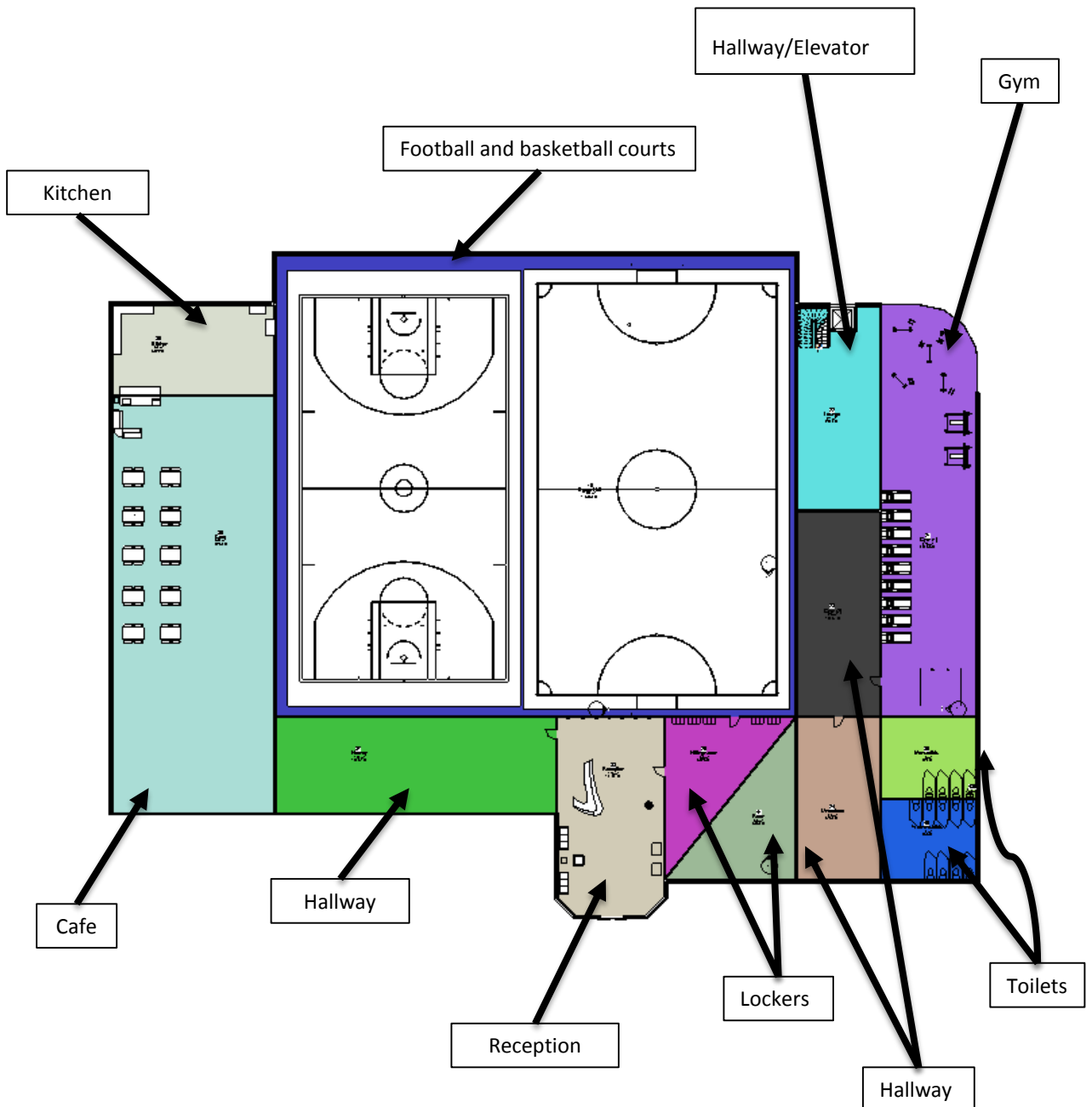


## 2. The candidate will be able to formulate a project brief

### 2.1 I can outline the functional requirements of the project



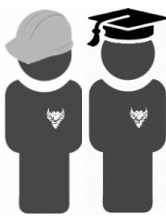
#### 1. Bubble Diagram of Spaces:



#### 5 Point Summary of What I have Learnt:

- I've learned how to organise rooms.
- I've also learned how to make rooms spacious.
- Learned how to colour code rooms in Revit.
- Learned to always plan my rooms before designing them.
- To always make them appropriate size with research.





## 2. The candidate will be able to formulate a project brief

### 2.2 I can establish quality objectives for the project

#### 1. Case Study A

The Burj Al Arab is the first tallest hotel to surpass 1000ft. It is the worlds tallest structure with a membrane facade. The buildings structure lies on artificial ground which took 3 years to construct and 3 years to construct the building itself. The front (behind the helipad) facade is constructed of two tiers of huge, steel 'X' trusses. Below these exotic views from two levels of entrance lobby, unencumbered by structural support. The 650 architects of Atkins Design Studio design amazing buildings such as this one, alongside the Bahrain World Trade Center and the Jumeirah Beach Hotel, all these buildings cost millions to build!



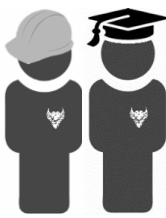
The Lloyd's tower was constructed in 1986 and costed an overall 75 million pound! The facade of the building is reinforced steel which looks awesome in my opinion since I have never seen such a complex and situated design. It consists of different shapes and heights and even left the cranes there for further if needed. The architect Richard Rogers designed this building with ease and has forever remained one of London's most visited Buildings. Also the design is not what some would call a 'modern' one, instead most people would relate this building to the industrial revolution since of its metallic steel structure just like back in the 1700's.he



#### What are Precedents?

**Precedents** an earlier event or action that is regarded as an example or guide to be considered in subsequent similar circumstances.





# 2. The candidate will be able to formulate a project brief

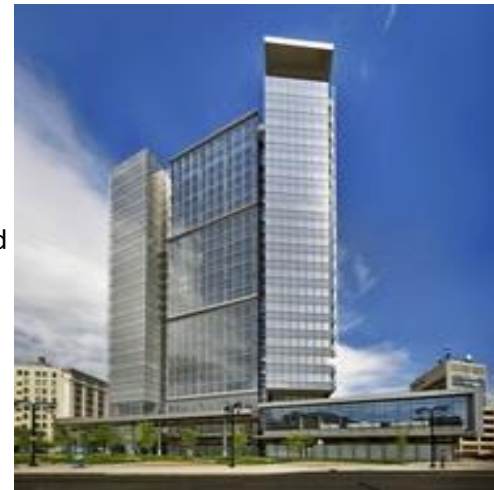
## 2.2 I can establish quality objectives for the project

### 2. Case Study B

The Bahrain World Trade Center, a real beauty. This building was constructed in Dubai with a height of 240 meters high there are 3 large wind turbines which powers 20% of the building. The towers were designed so that they will funnel the onshore wind between them, while simultaneously creating a negative pressure behind in order to accelerate the wind velocity, creating more energy. The architects called "Atkins" were very pleased with the sustainable design the building inhabited and look forward into creating more structures such as this. The lead architect says " We are very optimistic about the future because we have clearly demonstrated that we can create a commercial and environmentally building such as this".



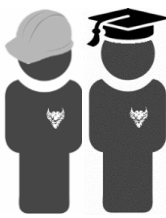
Manitoba Hydro Place is the headquarters of 'Manitoba Hydro', the electric power and natural gas utility in the area of Canada. This building received the award 'LEED certification' in May 2012 making it the most energy efficient office tower in North America. How is it sustainable you ask? Well the building's bioclimatic, energy-efficient design features a 377 ft (115 m) tall solar chimney, a geo-thermal HVAC system using 280 five-inch tubes bored 380 feet into an underground aquifer. So technically it generated 100% fresh air and can control how much heat enters the building.



### What is a Project Vision?

A project vision is what you want the building to achieve in the future, e.g Sustainability, awards and the future generation.





## 2. The candidate will be able to formulate a project brief

### 2.2 I can establish quality objectives for the project

#### 3. My Project Vision:

Hello, this is my vision where you will find my hopes and dreams and how I am going to sell my building to others. Firstly lets start off with my hopes for the building, my hope is for the building to be a modern building which includes maple flooring and double glazed windows. I hope to achieve a steady flow of money for my employers as well so they are well treated which improves the moral and jobs for them. I'd like to achieve a economically stable building in the process as well, this is because it will save me major amounts of debt from water and electrical companies, I will hopefully achieve this by installing solar panels and a wind turbine, although I will still have to pay for them. Now for the facades and interior, I'd like them not to be cheap because it will downgrade my overall ratings for the building and that is really bad for the reputation of it, that is why I have agreed to build my building for more so it can attract people into the building. This will include; furniture, walls, floors, ceiling, outdoor area and lighting (there will be some other stuff as well). Now my only dream for this building is for it to be successful and to be nominated into a award and win it, this will boost the overall ratings of the building making it an amazing and satisfying building to be in.

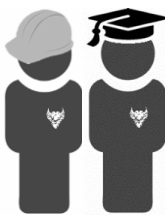
#### 4. Mood Board:



#### What is a Mood Board?

A mood board is a series of pictures relating to you context. Also used to start generating ideas.





## 2. The candidate will be able to formulate a project brief

### 2.3 I can set the sustainability aspirations of the project.

#### 1. Summarise what Sustainability means:

*Environmental Science.* the quality of not being harmful to the environment or depleting natural resources, and thereby supporting long-term ecological balance.

#### List the 3 P's which help to describe Sustainability and discuss their relevance?

- **Profit** – Profit relates since if you have a sustainable building you could profit off it since you will save money on heating and lightning which then then the money saved can go towards other facilities such as staff management, the community and re inventing the building as a whole.
- **People** – People relates to sustainability since we are the creators of this project and we decide how we want the world to end up, e.g. we should place a variety of bins around the facility to encourage people to not litter but to responsibly place litter in the bin. The building also provides jobs for the community.
- **Planet** – Planet relates to sustainability since sustainability is surrounded around the planet in general, sustainability is how to maintain the planet to a sustainable level to allow the destabilisation of global warming and other effects due to lack of sustainability.

#### 3. Describe Sustainable features for your building:

On my roof I will have solar panels which will produce environmentally friendly energy but I sadly I will also have electricity supplied from stations to maintain a smooth energy flow, Depending on the budget a Wind turbine could be included on the front part of the complex. I will possibly use sustainable materials such as hard maple flooring and caramel hickory flooring. For the roofing I could a water harvester for when it rains so I'm using 100% natural water from the planet which helps save water costs and also using water from the grid. I'll also be opening my building up for the community offering jobs, apprenticeships and work experience

