

Building Drawings

General Principles

A building project requires a complete set of specialised drawings known as a **Project Set**. These drawings are used by a range of different people like architects, builders, plumbers, electricians and joiners.

A Project Set includes:

- Location Plans*
- Elevations*
- Site (or block) plans*
- Schematic diagrams*
- Floor plans*
- Illustrations*
- Sectional views*

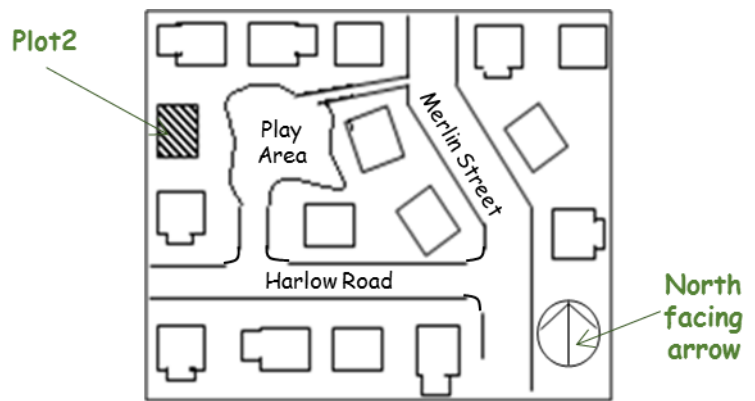
As a result of many different companies and professions using the project set, all the drawings must be in a standardised format using the same symbols and conventions.

Location Plan

The location plan identifies the location of a 'new' building related to other buildings and the surrounding area. It also helps the builders to plan the layout of the building. An example of a location plan is shown.

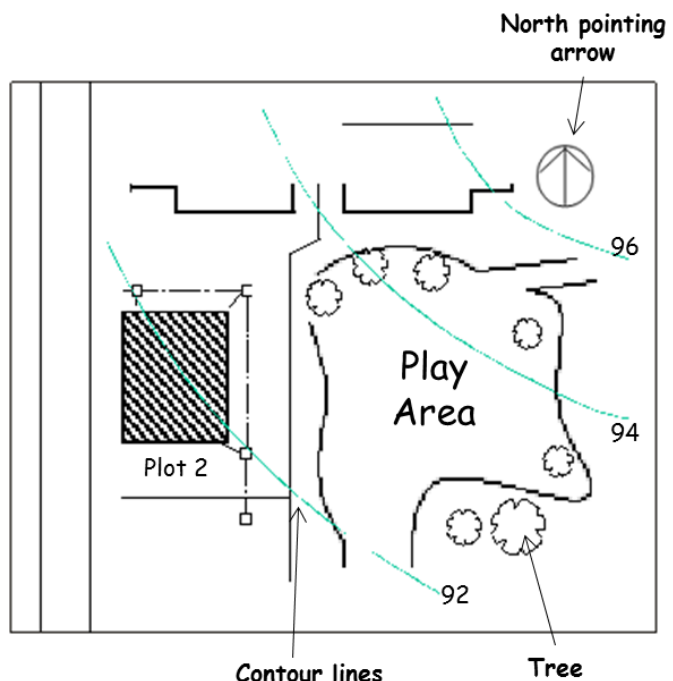
As you can see, neighboring building, their boundaries, and roads and street names are among the information shown.

A direction arrow will also be given and indicating where north is. The scale of the drawing depends on the size of the whole building scheme, but is normally **1:1000** or **1:1250**



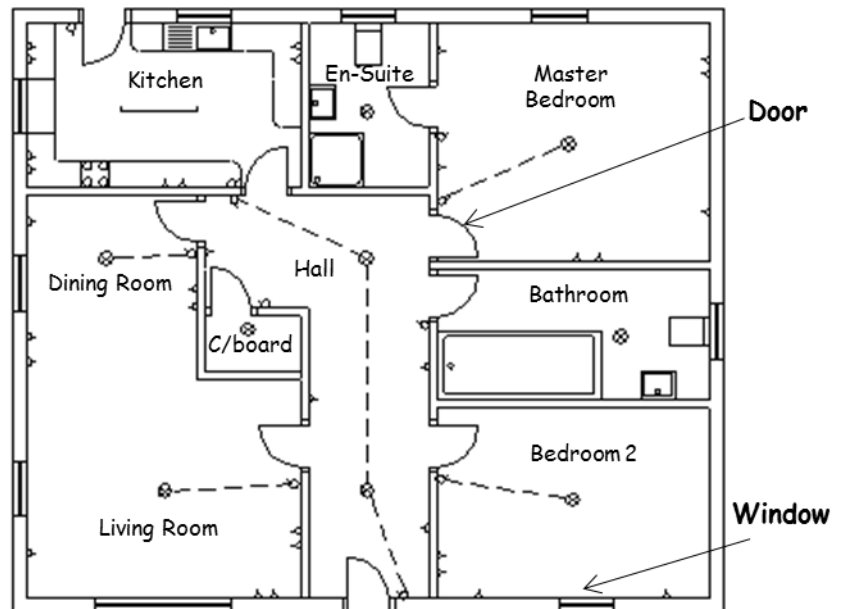
Site or Block Plan

Site plans show the site boundary and the outline of the proposed development. Other information can include, **trees**, **drainage**, the **north pointing arrow** and **contour lines**. The scale of a site plan depends on the size of the building, but is usually **1: 200**.



Floor plan

This type of view shows the internal layout of a building. It allows us to see the arrangement of the rooms, the position of windows and doors as well as the thickness of internal and external walls etc. Floor plans are used by **builders, plumbers, electricians** and **joiners** to help plan the construction work and cost of materials. The scale of this type of view depends on the size of the building, but is usually around **1:50**.



Elevations

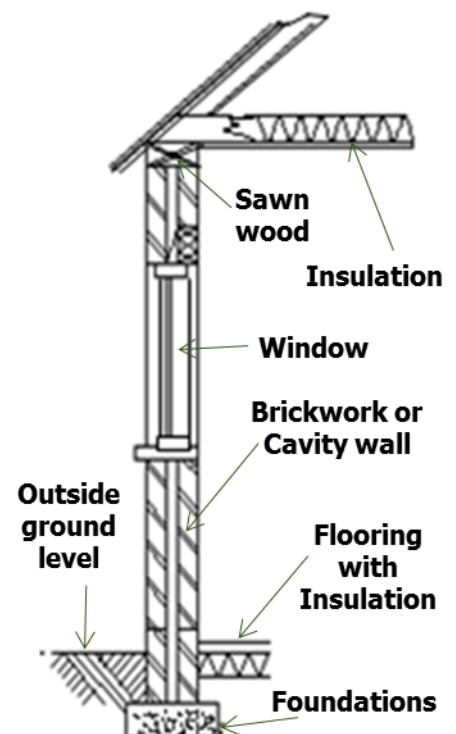
As you know, Elevations are orthographic projections of a building which are produced by an architect or a designer. They are used to show what style the building is, eg if it's a bungalow or villa. Elevations are also used to show the external appearance and details of a building, for the style of roof to the position and style of windows and doors.



Sectional Views

A cross section through the side of a building like the one shown below, gives builder, joiners and roofers all the information about how the building should be constructed. For example, details like the choice of materials, the design of the foundations and how all the different parts fit together should all be shown on this type of view.





As there may be many different people working with these Views, it is important that the correct symbols and conventions are used throughout.












Common CAD Symbols





These symbols are drawn from BSI.





You may be required to use these symbols in your assignment or project, or be asked questions about them in your exam. You **must** use the symbols and terms specified below.





Lamp	Switch	Socket	Radiator
			

Shower tray	Bath	Wash basin	Sink	WC
				

Sinktop	Heated towel rail	Concrete	Brickwork
			

Door	Wood sawn, any type	Insulation board	Block work
			

Fixed window	Window — hinged at side	Window — hinged at top	Window — hinged at bottom
			

Window — pivoted, horizontal axis	Window — sliding horizontally	Drainage	North point
			

Existing tree	Existing tree — to be removed	Proposed tree	Contours
