



Centre Point Building

Architect: George Marsh

Architecture firm: R. Seifert and Partners

Structural engineer: Pell Frischmann

Main contractor: Wimpey Construction

Centre Point has been built in the 1960s. However it is being refurbished now. The materials used have been pre-fabricated and transported to the site to get stacked on top of each other and get built. Which made the building to be completed within 2 years.

### Material Study:

Firstly the concrete would be made by mixing water, cement and Aggregates. Then it would be reinforced. Reinforced concrete is a composite material which includes metal bars or metal sheets passing through the concrete block in order to make it stronger. The bars increase the tensile strength of the concrete. The metal bars would take the load being applied to the concrete to prevent it from cracking or breaking.

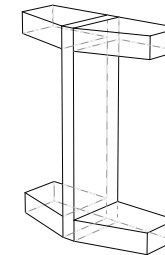
Steel fibre reinforced concrete is used in the centre point. The density of reinforced concrete is about 2500 kg/m<sup>3</sup> which makes it relatively strong. It is capable of tolerating the extremes of exposures and weather conditions.



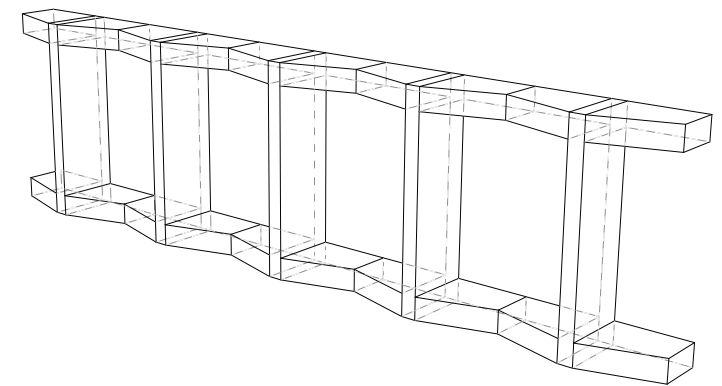
### Fabrication Process:

The reinforced H-shape concrete blocks were prefabricated and then moved to the site. Then metal bars were passed through them to hold them together and they hold the glass walls in place. As the units got bolted to each other they supported the load of the facade of the building. Loads were also designed to be carried by two pairs of precast-concrete columns in the centre of the building.

The H-shape modules as a finished material, can be exposed to big loads as well as speeding up the construction process.



The prefabricated H-shaped block



Blocks get attached with metal bars that pass through them to each other and the concrete floor.