## Rhubarb – Five storey office block



## **MMCEngineer Ltd**

Structural and Civil Engineers

## **Project Overview**

Client: Architect: Status: Blok Build Bryant Priest Newman Final Fit Out





## rhubarb

Arranged over five floors rhubarb is a brand new office building imaginatively designed to create 18 self contained studio offices. Sizes range from 360 sq.ft to 860 sq.ft.

The structure is primarily 100mm light gauge steel sections with minimal hot rolled columns and beams employed to support some of the larger open spans required for the car park to the rear and the large window at ground floor. Floors are concrete screeded using Lewis decking.

The Stephen Napper designed the foundations, walls, floors and roof and inspected the structure at every stage.

Supplier of structural design services (Olympic Park) to the London 2012 Games

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The offices are designed to allow for 8.0m clear spans if required using two hundred millimetre deep sections with a seventy five millimetre screed on top giving a structural floor depth of 275mm. This gave an open area of approximately three hundred and thirty square metres per floor.

Central stair core and lift shaft are constructed from traditional block work but the external, load bearing walls are all light gauge steel. The masonry skin is traditionally built with a proprietary masonry support system running around at third floor level. This is directly attached to the light gauge steel load bearing structure.

Stephen Napper designed all elements of the structure from mass strip foundation's to the roof trusses and specifying the roof deck (18mm ply wood) and the fixing centres for the screws into the roof purlin's.

The fifth floor structure is set back giving an open terrace with a covered, cantilevering roof to the front aspect.

The rhubarb building is set in the heart of the artists' quarter, and is across the road from the 'Custard Factory', which goes some way to explain the quirky name for the building.

The structure is primarily  $100 \times 41.3 \times 1.6$  mm light gauge steel sections with minimal hot rolled columns located in the external building envelope and limited beams employed to support some of the larger open spans required for the car park to the rear and the large window at ground floor.

Rhubarb was Blok Build's first taste of light gauge steel construction, and they are keen to use the method again, both here in the UK and aboard.