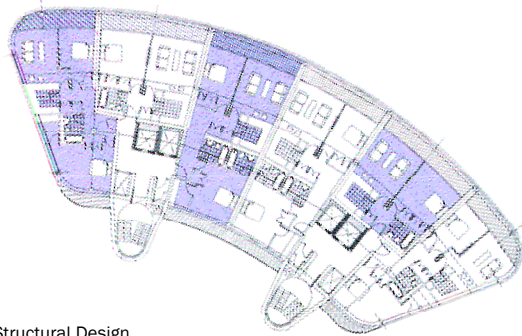
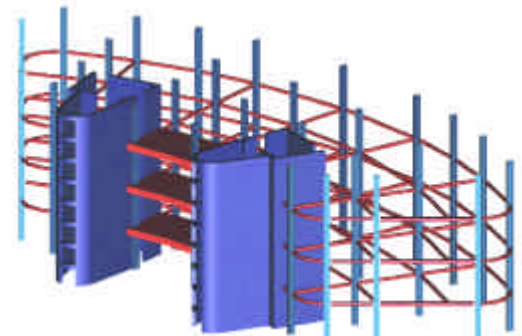


# BATTLE McCARTHY

Consulting Engineers & Landscape Architects



Structural Design

## PROJECT:

Holloway Circus, Birmingham

## CLIENT:

The Beetham Organisation

## ARCHITECTS:

Ian Simpson Architects

## BM SERVICES:

Landscape Architecture, Structural, Environmental & Building Services (MEP) Engineering

## VALUE:

£30million

## DESIGN BRIEF

To design the Holloway Circus Tower, a major new 44 storey mixed-use development, combining office, social housing and private residential. The structural engineering solution was integrated with the architecture, building services engineering and landscape architecture to reflect the Client's aspirations for a landmark building and concerns for the environment.

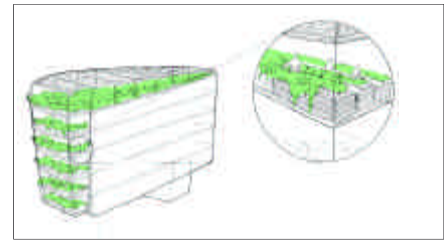
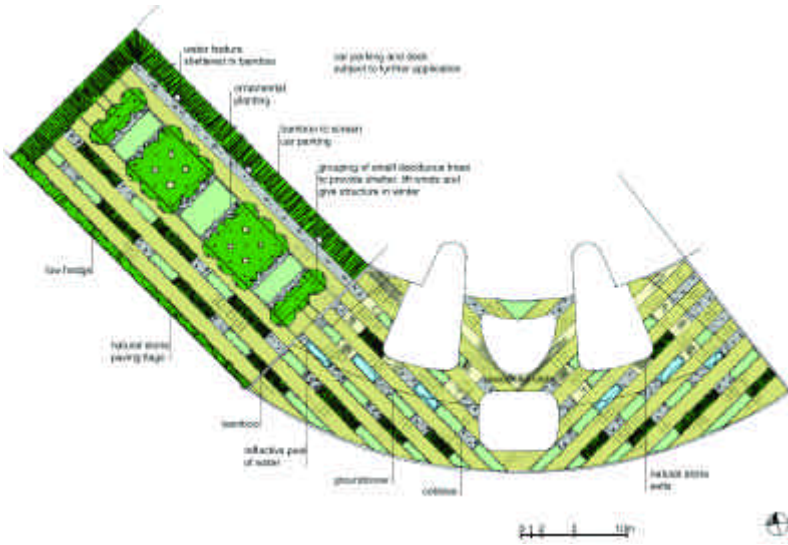
## DESIGN INITIATIVES/ACTIONS UNDERTAKEN

The primary design objective was to develop a structural system, which is simple and economic to construct and maintain, whilst providing the client with maximum flexibility.

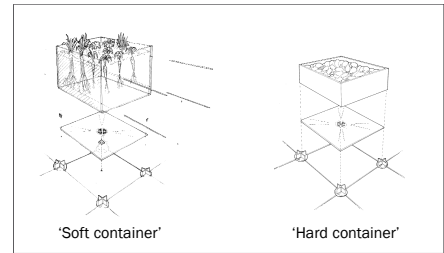
The scheme is based upon the innovative use of proven technology combined with progressive structural designs and has the following features:

- Twin stair cores to provide stability against wind loading and non-verticality horizontal forces and stabilise the steel frame structure allowing lightweight steel construction.
- Reduce the volume of the high environmental impact materials and increase the use of prefabricated and low environmental impact materials.
- Provision of high thermal mass floor to the north (bedrooms) allowing quick response time to heating requirements.
- Integration of structure and services routes to optimise useable space.
- Optimisation of prefabrication of primary structural elements for quality and speed of erection.
- Maximise the use of recycled material.
- High acoustic isolation standards.

Sky Lobby Landscape Masterplan



Suspended balconies

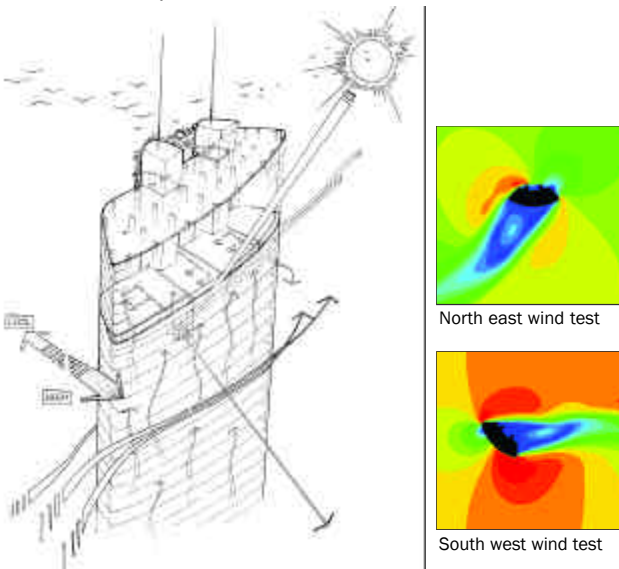


Modular fittings to balconies

The landscape proposals for the tower focused on three elements:

- The Sky Lobby provides a strong landscape element through the building and in combination with the associated car park deck landscape has a visual drama when viewed from above.
- Balconies with climbing plants create a vertical landscape whilst modular fittings allow flexibility.
- Penthouse Garden Zones provide larger green spaces for exclusive use.

Environmental Analysis



Wind tunnel model

Floor Structure

