BATTLE McCARTHY©

Consulting Engineers & Landscape Architects

PROJECT:
Elstow New Settlement, Bedford

CLIENT:
JJ Gallagher/National Power Plc.

ARCHITECT:
Arup Associates/Tibbalds Munro TM2

BM SERVICES:
Landscape Architecture & Environmental Analysis

VALUE:
Classified

DESIGN BRIEF

To provide strategic landscape proposals and prepare a design statement to accompany an outline planning application for a new community on the site of the Elstow Storage Depot. Additional duties included the technical and economic appraisal of integrated site-wide energy proposals and the preparation of an energy statement and strategic advice to the architectural design team on microclimate issues relating to building massing and the location/height and planting mix of shelterbelts for wind protection.

DESIGN INITIATIVES/ACTIONS UNDERTAKEN

The Elstow Storage Depot site is located 5km south of Bedford in Marston Vale, the broad flat valley of the River Ouse. In 1998 National Power Plc. and JJ Gallagher entered into a joint venture agreement to promote and deliver a new community on the 281 hectare site.

The vision for Elstow New Settlement was the creation of a distinctive new community based from the outset on sustainable development principles. The development objectives included:

- Provision of up to 4500 new homes, jobs, shopping, leisure and community facilities in a way that minimises the need to travel outside the settlement.
- Maximise the opportunities for the reuse of waste materials and resources.
- Incorporate measures to minimise the consumption of energy.
- Give priority to non-vehicular movement.

View from green ridge

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Strategic Development Concept

Constraints included:

- Vast quantity of contaminated material on site.
- Unsightly neighbours - scrap dealers, industrial works.
- Very little townscape context.
- No sense of place/destination.
- Only glimpsed views into the site from major roads and rail transport.
- Elstow North (existing) and South (proposed) landfill sites.
- Derelict fire ponds which provide habitat for amphibian's and other wildlife.
- drainage brooks and ditches which provide important cover for wildlife and act as wildlife corridors through the site.

The microclimate stategy included:

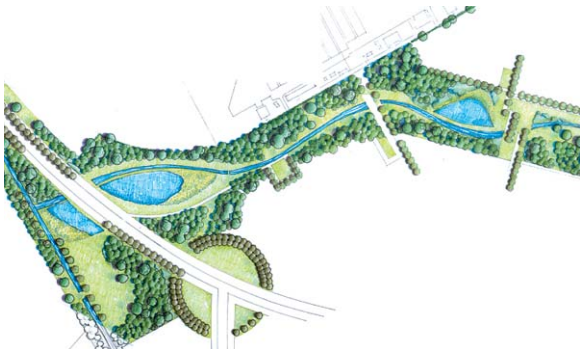
- Landforms in combination with shelterbelts to provide shelter from prevailing south westerly and cold north easterly winds.
- Maintain existing hedgerows where possible as part of the overall landscape framework.
- Dispersed tree planting within housing areas to dampen out eddies, reduce gusting and maintain higher velocity winds near rooftop level.
- Orientate public spaces to maximise passive solar gain.

Landscape Masterplan

A strategic landscape structure was developed which included the following key areas:

- Gateways
- Town Centre
- Town Park
- Greenways
- Station approach

A key landscape element was the ‘greenway’, linear parks which integrate landform, topography, movement and drainage to form a network of active recreational zones and passive spaces for flood attenuation and shelterbelt planting. These linear parks form the principal pedestrian and cycle movement corridors, linked to the town centre, public square and town park. Each greenway supports a range of landscapes and habitats, the character of which changes along its length creating a rich and varied landscape.



Greenway

Drainage and ecology objectives were:

- Conserve water on site in constructed lakes and ponds.
- Preserve and enhance existing wetland areas and protect the diversity of plant and wildlife species.
- Channel surface water runoff from the development into new brooks connecting into the Elstow Brook.
- Create wetlands and flood meadows to attenuate storm water and provide amenity interest.
- Create areas for newt translocation in a local nature reserve with limit disturbance.