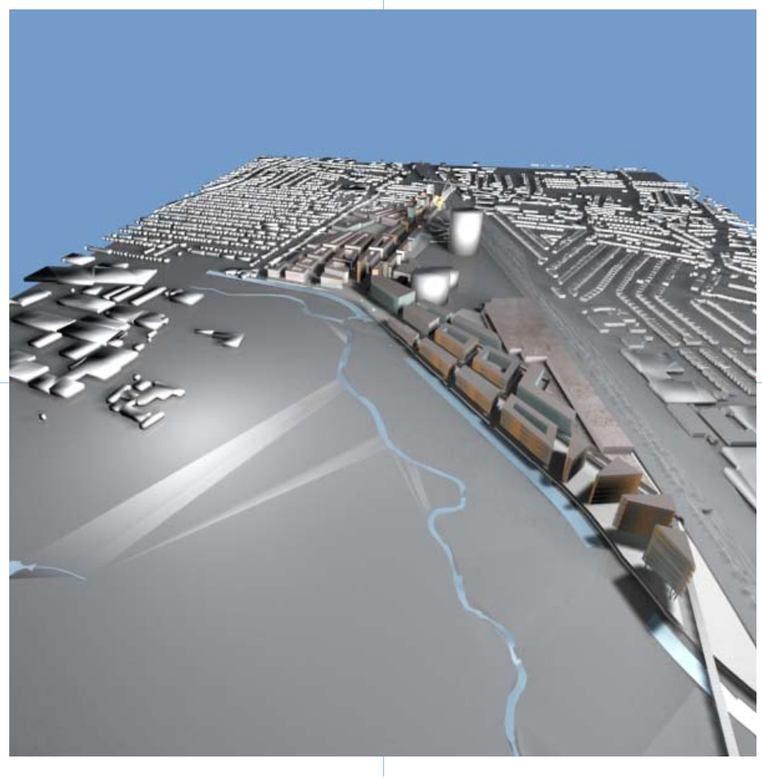
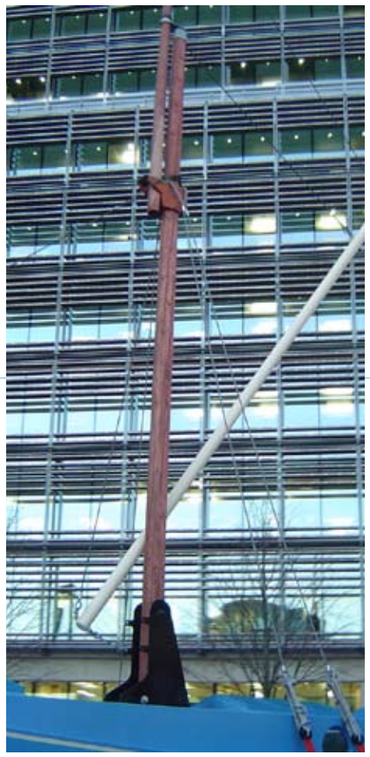
4 Masterplan development



4:1. Masterplan vision



In the first part of this Design Statement the constraints affecting the Former Southall Gas Works site and its context within Southall are described. These constraints relate to access, contamination, gas infrastructure and the railway line. They have had an impact on the development of the scheme although it has not been shaped by these constraints. The masterplan rather builds on the assets of the site; proximity to the Minet Country Park and the Grand Union Canal to the west, and to a thriving multi-cultural centre to the east; to create a unique new urban quarter.

This is envisaged as a high-density, mixed-use focus for West London with a broad range of housing and employment uses. An urban quarter creating an ideal base for people and activities with links to Central London, Heathrow Airport and other parts of West London. The development proposal is based on the following principles:

- A sufficient density of activity to generate its own vitality and create a lively public realm that is active throughout the day and that is able to support a range of facilities (see Section 4.2).
- A scheme that has a strong sense of place and a distinctive identity. Because of the scale of the site we are proposing a series of character areas that can add to the diversity of Southall (see Section 4.3).
- creating an integrated, permeable street network that maximises links to the surrounding area. (see Section 4.4).
- A street network that includes a

clear heirarchy of streets each with a distinctive form and character. This ranges from the grand main boulevard to intimate home zones (see Sections 5.2 and 5.3).

- A neighbourhood that is socially, economically and environmentally sustainable (see Section 4.6).
- A development that is served by public transport where all residents and workers are within walking distance of a bus stop. (see Section 5.4)
- A network of attractive open spaces and parks so that all residents are within easy reach of a park, play area and recreational facilities (see Section 6).
- A scheme that makes the most of the canal frontage as a location for leisure uses and canalside housing (see Section 6.1)
- New accesses to link development to the wider area.
- A rich mix of uses creating a new local shopping centre, a leisure destination, community facilities and employment uses alongside a series of new residential neighbourhoods so that the area becomes a functioning piece of city (see Section 7.1).

These principles are described in more detail in the following sections. They combine to create a distinctive high-density urban quarter. This is designed with densities that are higher than those of the surrounding area to make the most of the transport connections and to create an lively urban area. It is envisioned that the development would merge at the edges with the surrounding urban fabric and not to be visually intrusive. It will transform the image and the market of Southall while adding to its distinctive diversity and character.

4:2 Scale of development

The Southall site is a mile long from tip to tip, the equivalent of the distance from Marble Arch to Soho Square

Some major development schemes in London at the moment: **Woolwich Arsenal** (top) **Stratford** (second from top) **Wembley** (Above) and **Elephant and Castle** (Right). All are being developed to densities similar to the Southall Gas Works scheme.

LONDON PLAN Density Guidance

Within 10 mins of a town centre		
Parking	1-1.5ps/u	<1ps/u
Central		240-435 u/ha
Urban	55-175	165-275 u/ha
Suburban	50-110	80-120 u/ha
On a transport Corridor		
Parking	1-1.5ps/u	<1ps/u
Urban	50-110	100-150 u/ha
Suburban	50-80	

A key part of the masterplanning has been to establish the scale and density of the development. The starting point for this was an understanding of the scale of the site. The developable area if the Site is 29.45 hectares making it one of the largest sites being developed in London at the present time. Because of the shape of the site – a flattened triangle – the site feels even larger. Indeed the distance from east to west is nearly a mile, which is the equivalent of the distance from Marble Arch to Soho Square along Oxford Street.

Density of development

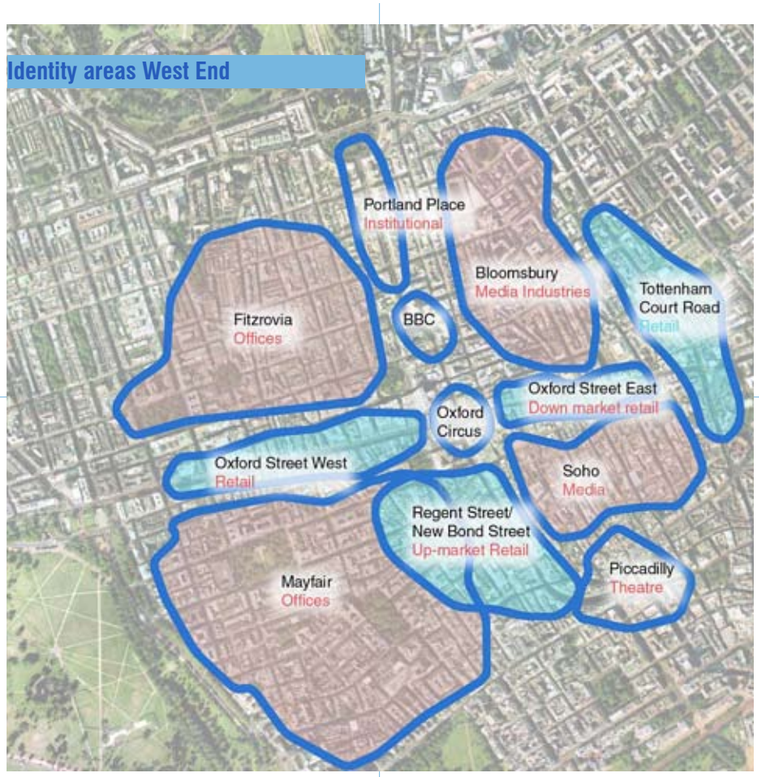
A number of factors have determined the proposed density for the site. The most important is a need to create a functioning urban quarter. The size of the site and the restricted access means that it could easily become a backwater unable to support a mix of uses and to generate activity. Increasing the density of development allows the scheme to generate its own vitality.

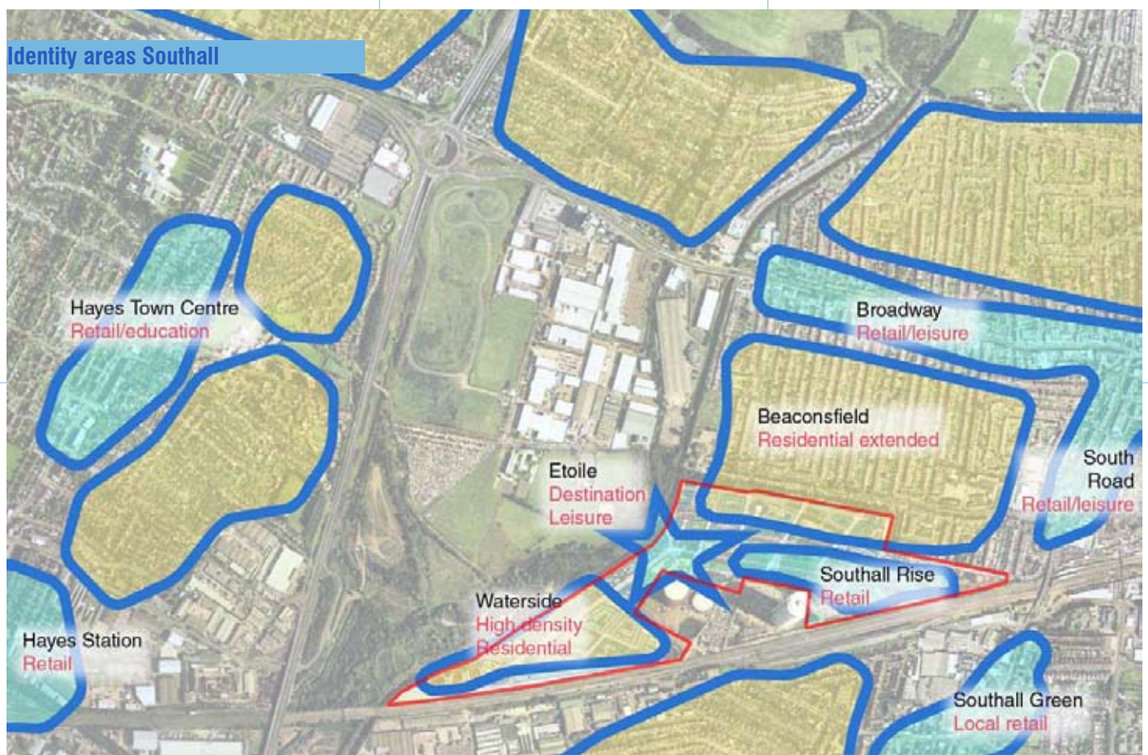
This also takes advantage of public transport links and is in line with the aim of the London Plan to increase the density of development to accommodate housing growth. In exploring options for the site, low density housing and employment solutions have therefore been rejected as they fail to maximise its potential.

The aspiration to create a high density urban quarter has been tempered by the need to ensure that an attractive environment with good quality open space and space standards is created. Guidance has been taken from the density guidance in the London Plan (set out on the table to the left). This assesses density based upon location, proximity to facilities and parking levels. The assumption has been made that the former Southall Gas Works is an urban location and parking has been provided at less than one space per unit.

The residential parts of the masterplan cover 20.85ha so that the average density of the housing is 215.8 unints/ha. This translates into a habitable room density of just over 600 hr/ha. This density is concentrated along the boulevard through the site which is a focus for retailing, leisure and employment uses. It is therefore based on the assumption that the boulevard will extend Southall Town Centre into the site so that much of the new housing will be within 10 minutes walk of this extended town centre. This justifys the inclusion of the site in the higher density bands and is comparable with other major sites in London.

4:3. Distinctive identities





While it is proposed that the development creates a new high density urban quarter it has also been designed to tie into the distinctive identity of Southall. This has been based on an analysis of urban grain and identity that suggests that a site as large as the former Southall Gas Works cannot be developed as just one place. The plan of the comparable area of the West End of London (above left) shows a series of distinctive places including the high intensity nodes (shown in light blue) such as Oxford Street, Regent Street, Piccadilly and Portland Place and the quieter neighbourhoods in between these nodes such as Bloomsbury, Mayfair, Soho and Fitzrovia.

The development of the former Southall Gas Works is not envisioned to be of the same intensity as the West End. Nevertheless as the plan to the left shows, Broadway, South Road and Southall Green create strong nodes together with Hayes Town Centre. Between these nodes there are neighbourhoods such as the Beaconsfield Road area and the housing areas on Dudley Road, south of the railway. We have looked at simply extending these neighbourhoods into the former Gas Works site. However the scale of the site and the potential of the development mean that this would be a lost opportunity. The masterplan therefore creates two new nodes, Southall Rise and Etoile on the new public transport corridor running through the site. These new areas are intended to compliment the existing nodes in Southall by adding to the offer of uses and facilities and creating distinct identities. They are described in more detail in Section 8 and include:

- **Southall Rise:** This is in the eastern part of the Main Site that will be a focus for retailing and local facilities. This will add a third 'pole' to the current bi-polar structure of Southall based on the original two village centres. These three poles would radiate from the station – the highest accessibility point of the district. The retailing in Southall Rise would predominantly serve the needs of residents of the Main Site but would also add to the retail mix of Southall as a whole.

- **Etoile:** In the centre of the site is a second high intensity node. This has been called Etoile (star) because of the radiating roads that focus activity on this area. It is a new leisure destination with a series of leisure, cafe, bar and restaurant uses on a public transport node facing the canal.

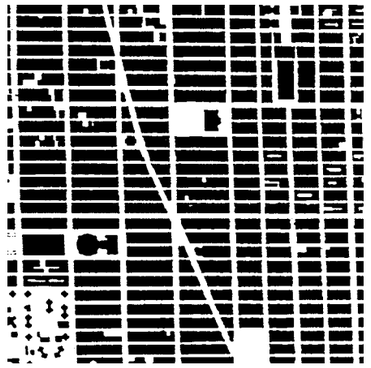
Between these two new activity nodes two new residential neighbourhoods are proposed :

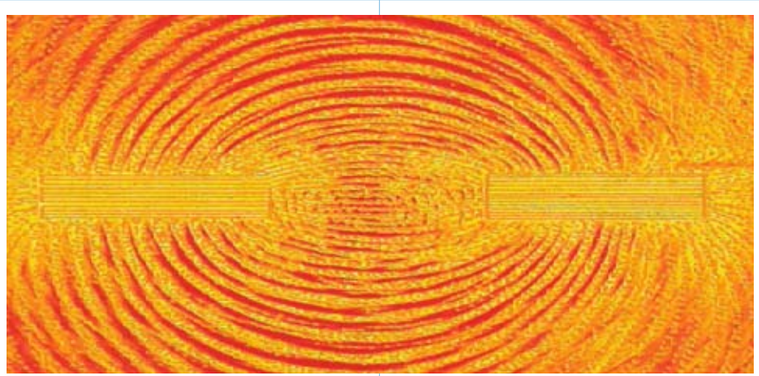
- **Beacons Field:** The northern part of the site is seen as an extension of the Beaconsfield Road neighbourhood. Rather than being a neighbourhood that stretches from the vitality of Broadway to the backwater that is the current boundary with the Gas Works site, this neighbourhood will stretch between Broadway and the new activity nodes of Southall Rise and Etoile.

- **Waterside:** The western part of the site is proposed as a new neighbourhood opposite the Country Park with an extensive waterfront. It is based on a public transport corridor but is mid way between Hayes and Southall and so is seen as having an identity that is distinct from either of the existing centres

4:4. Masterplan structure

Grids: Formal grids such as Barcelona (left) and New York (below) are uncommon in the UK where street networks tend to be more organic like Central London (below left).





Masterplanning is not like architecture because a masterplanner does not have direct control over the buildings that will be developed as part of the plan. URBED uses the analogy of a trellis and vine to describe the role of a masterplan. The masterplanner's role is to create a trellis onto which development can grow over a number of years. The trellis gives shape to the neighbourhood and can ensure the unity, beauty and efficient functioning of the whole. However the way in which development 'grows' onto the trellis will change over time. This is the way that much of Central London was planned, perhaps the most successful example being John Nash's masterplan for the area from Regents Park to Piccadilly shown on the previous page.

The trellis is created by the street and open space network of the area and is encapsulated in the Parameter Plans. The plans to the left show the way in which the trellis has been formed for the former Gas Works site:

Grid: Plan 1 shows a simple grid applied to the site. This is a standard urban grid made up of blocks that are 40m wide and 90m long. This is a standard dimension that holds true of most UK urban areas and optimises density while allowing sufficient internal space and privacy distances. It would allow us to link in to every other road on Beaconsfield (subject to land ownership).

High Street: Plan 2 starts to apply the urban principle of a street heirarchy to this grid by identifying a 'high street' through the site. This links the proposed accesses at each point of the triangle and necessitates the reorientation of the grid in the western part of the site. Early versions of the masterplan explored this simple grid however it has been modified for three reasons:

Organic v orthogonal grids: The first is the character of London. There are broadly two types of grid as illustrated on the figure ground plans (above left). Many cities in the United States are based on orthogonal grids like New York. These create efficient building plots but they are not particularly efficient for pedestrians. There are very few gridded cities because UK urban areas grew gradually around existing movement routes. They are therefore characterised by curves and angles and are, as a result, easier and more pleasant to walk around as shown by the plan of the square mile. Much of London, including the Regent Street

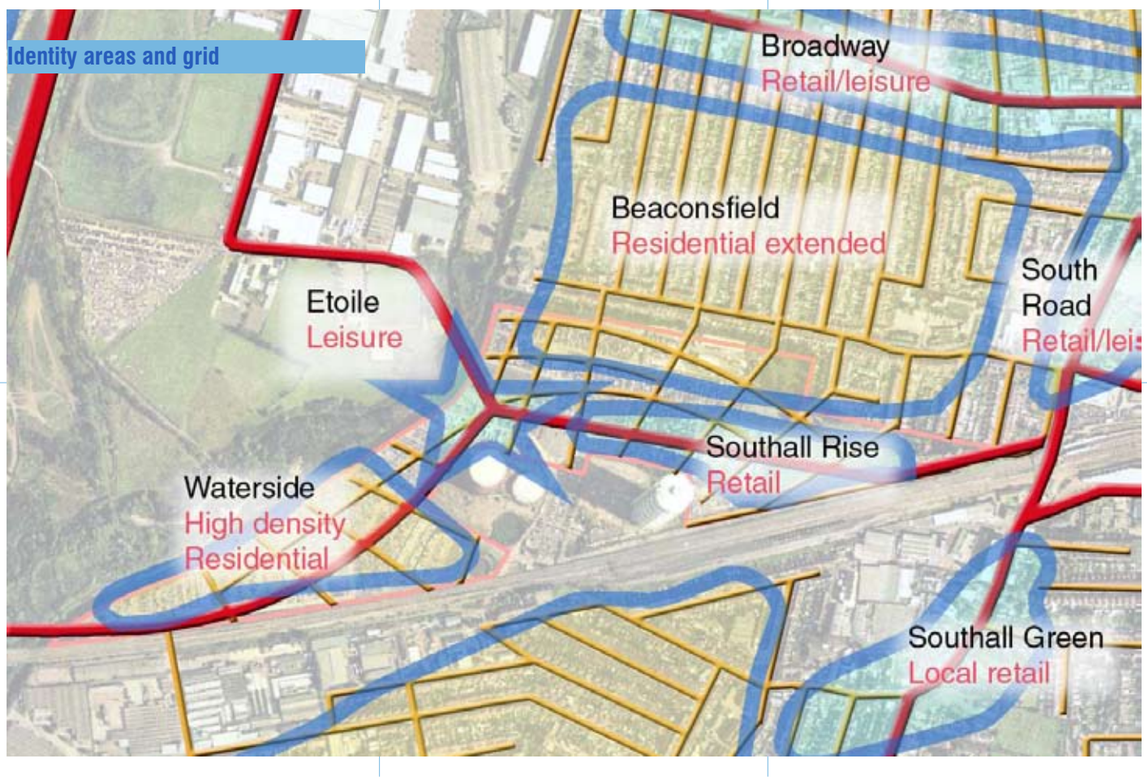
area is a combination of the two – a series of masterplanned streets and squares overlaid on existing routes and ownership boundaries. It is this hybrid that we have sought to create in the masterplan so that the key routes retain the formality and vistas of an orthogonal grid but the other roots curve and create attractive walking routes.

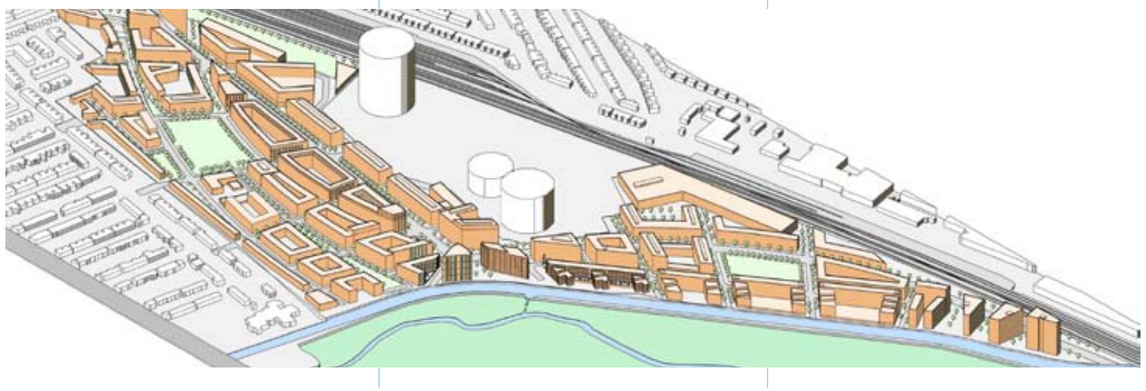
Distorted grid: The second reason that the grid has been stretched is to make use of the points of access to the Main Site, to optimise the development plots and to allow the block sizes to get smaller around the high intensity nodes as Plan 3 shows.

Attraction of the poles: The grid has also been pulled together at the two poles of Southall Rise and Etoile (Plan 4) in order to focus activity on these areas so that they can be easily reached from any of the residential areas.

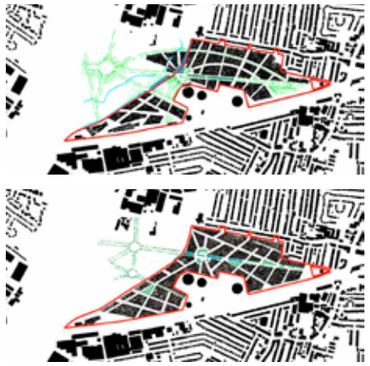
Block dimensions: This exercise has resulted in the plan described in the remaining sections of this Design Statement. The trellis of the street network creates a series of building plots and open spaces. This has been compared again to the West End (Plans to the right). This shows that the number of blocks in the Southall Parameter Plans is broadly the same as a comparable section of the West End.

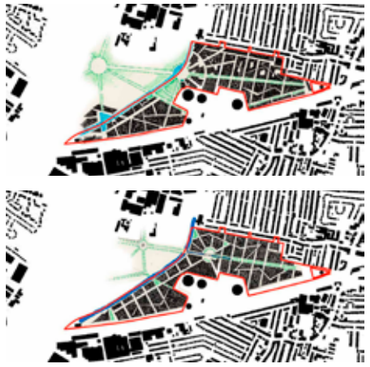
Block dimensions: While Southall is very different to the West End it is a useful comparison for the sort density and urban form that we are seeking to create. The two plans to the left are at the same scale and show the scale and form of urban blocks.





4:5. Masterplan development





Iterations of the masterplan:
The plan has evolved through a number of iterations

The plan has evolved over the last three years into the plan shown on the opposite page via a series of iterations shown to the left. The plan has evolved as a result of the following influences:

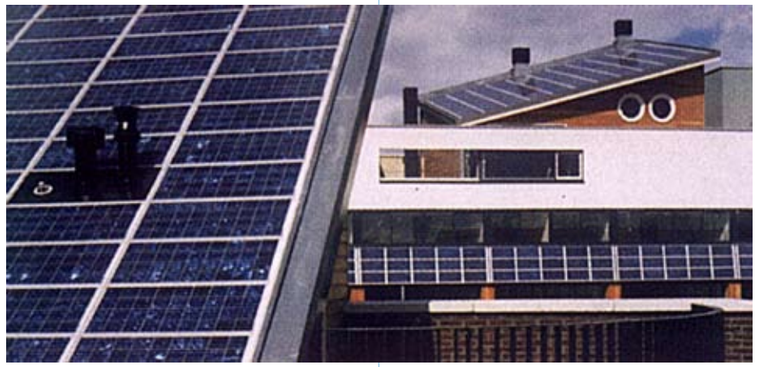
- Analysis of urban form.
- Discussions with the local authority and the GLA.
- Assessment of constraints and opportunities
- Consultations with local people.
- Investigations of environmental factors such as noise and visual impact.
- Assessment of the highways and access strategy by Capita Symonds
- Architectural testing of the plots by Jestico & Whiles.
- Market appraisal of the viability of the development by DTZ.
- The development of a public realm strategy by Lovejoys.
- The possible location of a tram depot on the site.
- The ground conditions and the remediation strategy by WYG.

The plans to the left are representative of some of the iterations of the plan that have been developed over a three-year period. The main changes over this period have been:

- **Tram Depot:** For a long time the scheme incorporated a tram depot in the western part of the site. This was a significant constraint on this part of the site and we were able to reassess this area when it was confirmed that the depot would be located on an alternative site.
- **The western part of the site:** Partly because of the depot but also because of the complex interaction of constraints the western part of the plan has undergone the greatest change. The final plan has a curving spine road set away from the canal to maximise the connection between the majority of residents and the water.
- **The Canal:** Various schemes have explored canal inlets into the site. However, such major excavations raised significant ground water, contamination and underground construction issues. They also created difficulty in bridging the canal while maintaining an accessible public realm and were not supported in the public consultation exercise.
- **Access points**: The principle of the Pump Lane access has remained fixed throughout albeit that the detailed alignment has changed. The access to Springfield Road has been through a number of changes sometimes being included and sometimes excluded.The Eastern access was at one point via a new skewed bridge over the railway. However, this created undesirable technical and safety issues in relation to the railway and South Road bridge, as well as significant adverse impacts on the listed water tower. Also the reconfiguration on the final plan to create a link under South Road has the benefit of providing a transport interchange north of the station.
- **Open space:** There have been a variety of approaches to the provision of open space on the Main Site. The early schemes had an eastern park next to the railway which has now been shown as sports pitches. This was reconsidered as part of a co-ordinated open space strategy that created two London Square type parks in the northern and western parts of the scheme.

Illustrative masterplan

4:6. Masterplan and sustainability



The Sustainability Strategy is set out in a separate report by WYG. In this section we describe how this strategy has influenced the Main Site masterplanning to create the Parameter Plans. This has drawn on URBED's experience over some 10 years on the Sustainable Urban Neighbourhood (SUN) Initiative, a project that has received funding from the UK Government and European Union to explore the creation of urban areas that are sustainable environmentally, economically and socially.

This work has shown that all three aspects of sustainability are vital. Problems are created where a single issue such as solar orientation dominates. The former Southall Gas Works Parameter Plans are therefore guided by principles of social and economic sustainability relating to the density of development, the use of street-based perimeter blocks and a mix of uses. This is influenced by environmental sustainability, however the environmental standards relate more to the specification of the buildings and the energy and waste infrastructure described in the Sustainability Report. These issues have shaped the Parameter Plans in the following ways:

Social sustainability:

Location and Connectivity: The scheme seeks to integrate with the surrounding residential areas and with the centre of Southall. There will be limited vehicular connections to the local streets. There will however be a series of pedestrian links to maximise connections between new and existing development and to encourage residents to walk into Southall.

Engagement and Social Capital: The scheme has been developed in consultation with local people as described in Communique's Consultation Report.

Balanced Communities: The scheme has been designed to create a balanced community by adding to the diversity of housing in Southall. This has balanced housing needs identified by the council with housing demand. The scheme includes a mix of housing types, sizes and tenures so that, together with the surrounding communities it becomes a balanced community.

Amenities and Services: The scheme is primarily concerned with meeting the needs of the development. However it does acknowledge the need to create facilities of benefit to the wider community. This includes a health centre that will take the pressure off local GPs, a community facility with sports pitches along the railway and a range of open spaces together with links to the Minet Country Park so that new and existing residents can gain access to good quality open space.

Economic sustainability

Economic Diversity: The Parameter Plans have drawn upon commercial advice to create a mix of employment uses including office space along the boulevard to create local jobs and to contribute to the economy of Southall. In total the scheme could include some 3,500 jobs thereby creating economic opportunities for local residents.

Maximising benefits to local companies: The involvement of local companies and people in construction is a detailed issue. However the Parameter Plans have made provision for space for local businesses as suggested by the local regeneration agency.

Local competitiveness: The type of retailing and leisure uses on the site will complement existing businesses in Southall. Consultations have been held with the local community who are supportive of a broader range of retailing that will add to the attractions of the area.

Environmental sustainability

Energy Use: The scheme will be designed to minimise energy use and achieve 10% renewables as set out in the Sustainability Report. While the Parameter Plans have not been dictated by solar orientation, the number of blocks with south-facing elevations has been maximised. The shading studies (Section 7.3) have been done to ensure that there is no significant loss of solar gain for the majority of properties. We have also sought to minimise single aspect units.

The energy efficiency of new development is a detailed design issue that is covered in the Sustainability Report and will be developed in detail as part of reserved maters applications.

Car Dependency: The reduction of car dependency is central to the scheme as set out in the Transport Assessment. This is achieved through restrictions of parking to zones of 50%, 70% and 100% depending on proximity to public transport. Provision is made for direct, pleasant and safe walking and cycling routes and provision is made in parking areas for cycle parking.

Construction: The sustainable construction of the buildings and infrastructure of the scheme is a detailed matter that will be dealt with at the reserved matters stage.

Waste Minimisation: The scheme is based a sustainable waste strategy that is able to accommodate a future where a majority of household waste is recycled. This has been explored through the housing typology work (Section 9) to ensure sufficient bin storage space. On the apartment blocks this will be accommodated in the communal waste stores accessible from street level. For the houses, bin space will be created in the curtilage in front of the housing. This will be developed at detailed design stage. There is also the potential to create a series of 'bring' sites throughout the scheme depending on the recycling system being adopted by Ealing.

Habitats and Biodiversity: The site currently has very little natural habitat other than some mature trees. The most important area is the canal and the scheme has been designed to leave a soft edge to the water to preserve this. The open space network has also been designed to create a series of connected spaces where new planting can encourage wildlife as described in Lovejoy's Landscape Strategy. This includes green fingers that connect the canal and Yeading brook corridor into the heart of the scheme.

Water Use: Water use is covered in the Sustainability Report and will include measures to reduce water use and explore the recycling of waste water.