EALING

Character Study and Housing Design Guidance

Stage A1 report INTERIM DRAFT

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Allies and Morrison
Urban Practitioners

Solidspace

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characterisation

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1 INTRODUCTION

CHARACTER AND GROWTH

There are many facets of character that can be captured and reflected through this study. Physical, environmental, social, economic, historic, cultural, perceptual and experiential character are all important in understanding the identity of a place. However, of greatest value is appreciating the relationships drawn between these different elements in order to gain real insight into a place, its positive attributes, the areas that would benefit from intervention, the capacity for and the type of change that would be appropriate.

Like the rest of London, Ealing is a borough with an acute housing shortage. The housing crisis is an increasingly important feature of the national political agenda, with local planning authorities under increasing pressure to demonstrate how housing and the infrastructure needed to support it will be met through the allocation of sites.

However, there is also recognition that a fixation with hitting prescribed targets for homes and jobs can result in substandard design processes, inefficient use of land and result in anonymous developments that lack grounding in the local character and context that has evolved steadily over time.

A character-led response to growth is a key ingredient in creating sustainable, healthy places where people want to live and work. It does not mean a return to pastiche architecture and placemaking, rather it can set the context for contemporary interpretations of local vernacular, reinforce key characteristics and help set the foundations for distinct places that have a strong sense of place.

THIS REPORT

The character study is a cross-cuting evidence base document that will form a robust basis for a plan-led growth strategy across Ealing borough over the coming years. This Stage A1 report on characterisation draws together baseline analysis of the borough's defining characteristics, undertaken through desktop studies, site visits and input from Council Officers.

The report is set out by theme to explore different aspects of Ealing's historic, geological, physical, functional and social characteristics. It uses GIS mapping, analytical plans, photography and written commentary to set out a firm understanding of the layers of character that comprise Ealing, as well as introducing key elements and relevant policy considerations from the draft London Plan intend to publish version (2019). This is the key document that will set the strategic framework for Ealing and other London Boroughs to develop their own local development strategies in compliance with its policies.

The report draws together emerging trends observed through this analysis and site visits to emerging and recently completed schemes to understand what this means for shaping character-led intensification and growth across the borough.

This report will be accompanied by the A2 report on typologies and scope for growth to form the complete Characterisation Study.

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2 EVOLUTION OF THE BOROUGH

Although there is archaeological evidence to suggest that Ealing has been inhabited for more than 7,000 years, the first permanent settlements in the borough were established by the Anglo-Saxon expansion into Britain from 400 AD onwards. The area which today constitutes the borough of Ealing was, during the 8th century, originally a part of the Middle Saxon county of Middlesex. This historic county survived the middle ages and evolved into a modern administrative unit well into the twentieth century.

In 1901, the parish of Ealing became a borough within Middlesex County Council. Over the next three decades, much of the rural county became urbanised due to the growth of the London conurbation. In 1961, Acton, Ealing and Southall functioned as distinct urban districts within Middlesex. However, by 1965 the county council was abolished and replaced by the Greater London Council. During this year, large swathes of Middlesex seceded to form the new London boroughs of Brent, Ealing, Enfield, Haringey, Harrow, Hillingdon, and Hounslow.

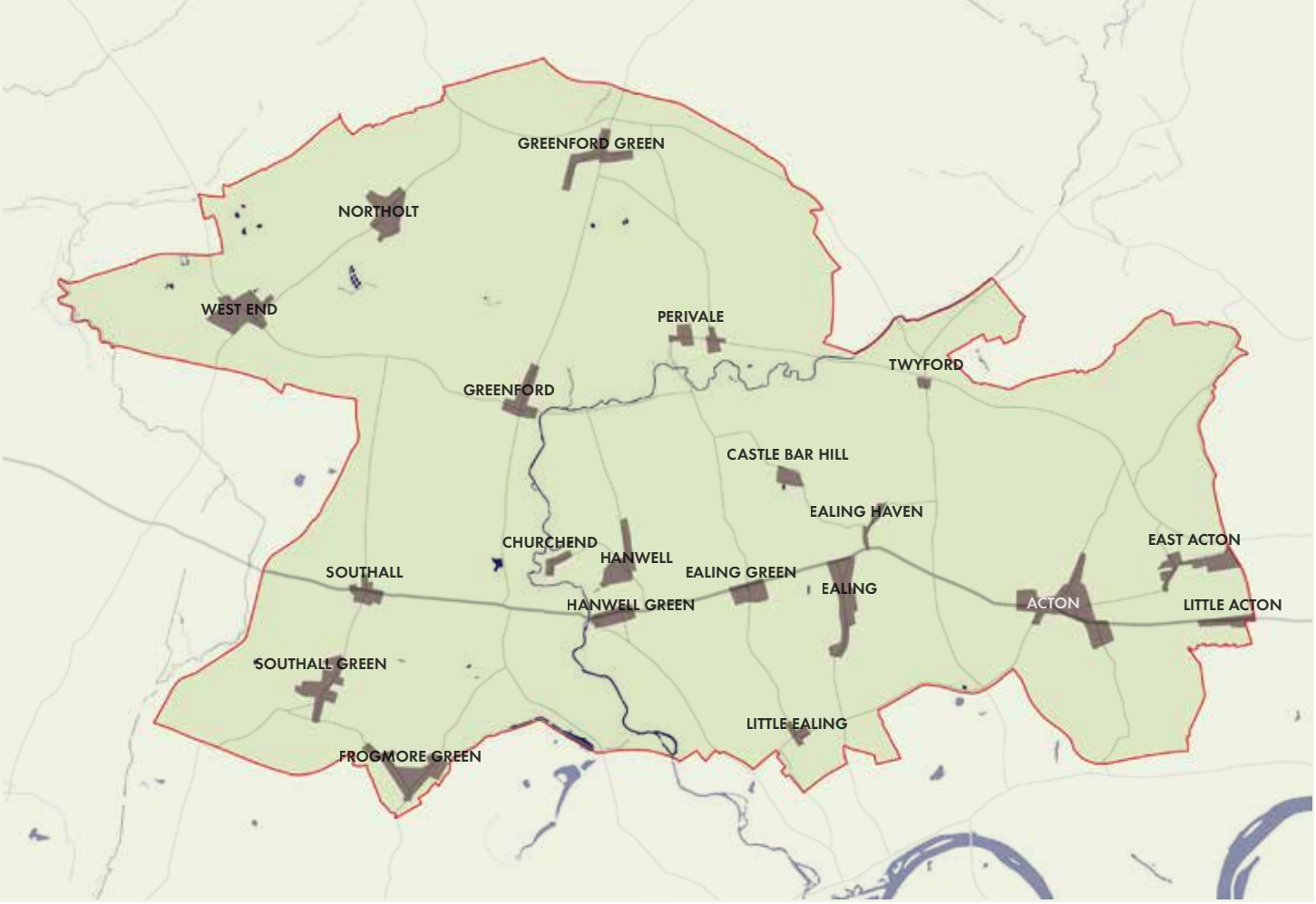
The spatial mapping of the Borough's historical evolution which follows has been derived primarily from four cartographic sources:

- An Exact Survey of the Citys of London, Westminster, ye Borough of Southwark, and the Country near Ten Miles round, 1746
- Ordinance Survey London, Five feet to the Mile, 1893-1896
- Ordinance Survey 25 inch England and Wales, 1841-1952
- Consumer Data Research Centre - Modal age of dwellings online interactive map created in 2019 by Oliver O'Brien at UCL Geography and researchers across the CDRC institutions in London, Liverpool, Leeds & Oxford

Land east of the river Brent mapped by John Rocque in 1746

OS map showing the amalgamation of various Ealing settlements by 1891

Middlesex County Council in 1901



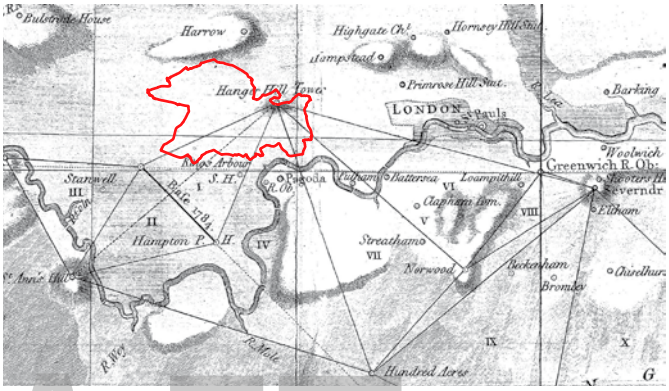
PRE 19th CENTURY

For most of its history, the borough of Ealing has consisted of dozens of historical villages interspersed by wide open countryside. Many of these places (including Little Acton, Hanwell Green and Southall), are situated along the Uxbridge Road which was built by the Romans to link London and Oxford.

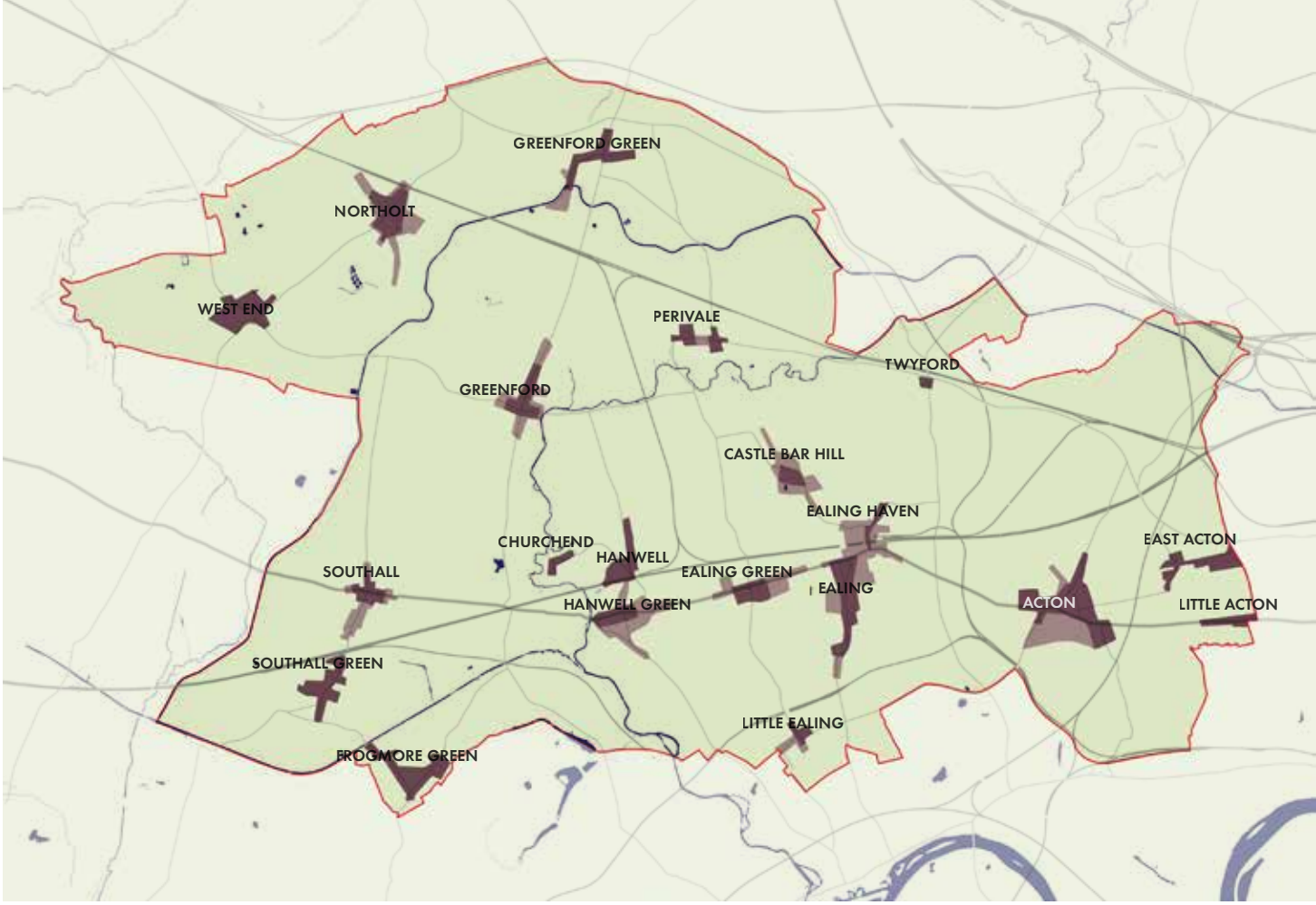
Pre-19th century maps indicate that Ealing's various settlements had surprisingly good north-south connections between them, not just east-west along the radial route to the capital. This meant that smaller and relatively peripheral villages such as Northolt, West End, Frogmore Green and Greenford Green would have maintained a closer relationship to the larger, more central settlements as they developed.

Places along the Uxbridge Road such as Ealing and Acton would have been more populous and contained a greater number of buildings. Often, these settlements functioned as market-gardens producing fruit and vegetables for London. Outer villages such as Perivale, Twyford and East Acton would have had a more rural, intimate character. Beyond these villages were more isolated manor houses and estates in places such as Little Ealing, Ealing Dean, Haven Green, Drayton Green and Castle Bear Hill.

The rural village character of East Acton in 1800



Hanger Hill played an instrumental role in measuring triangulations during the Anglo-French survey of 1787 to determine the relative situation of Greenwich Observatory and the Paris Observatory



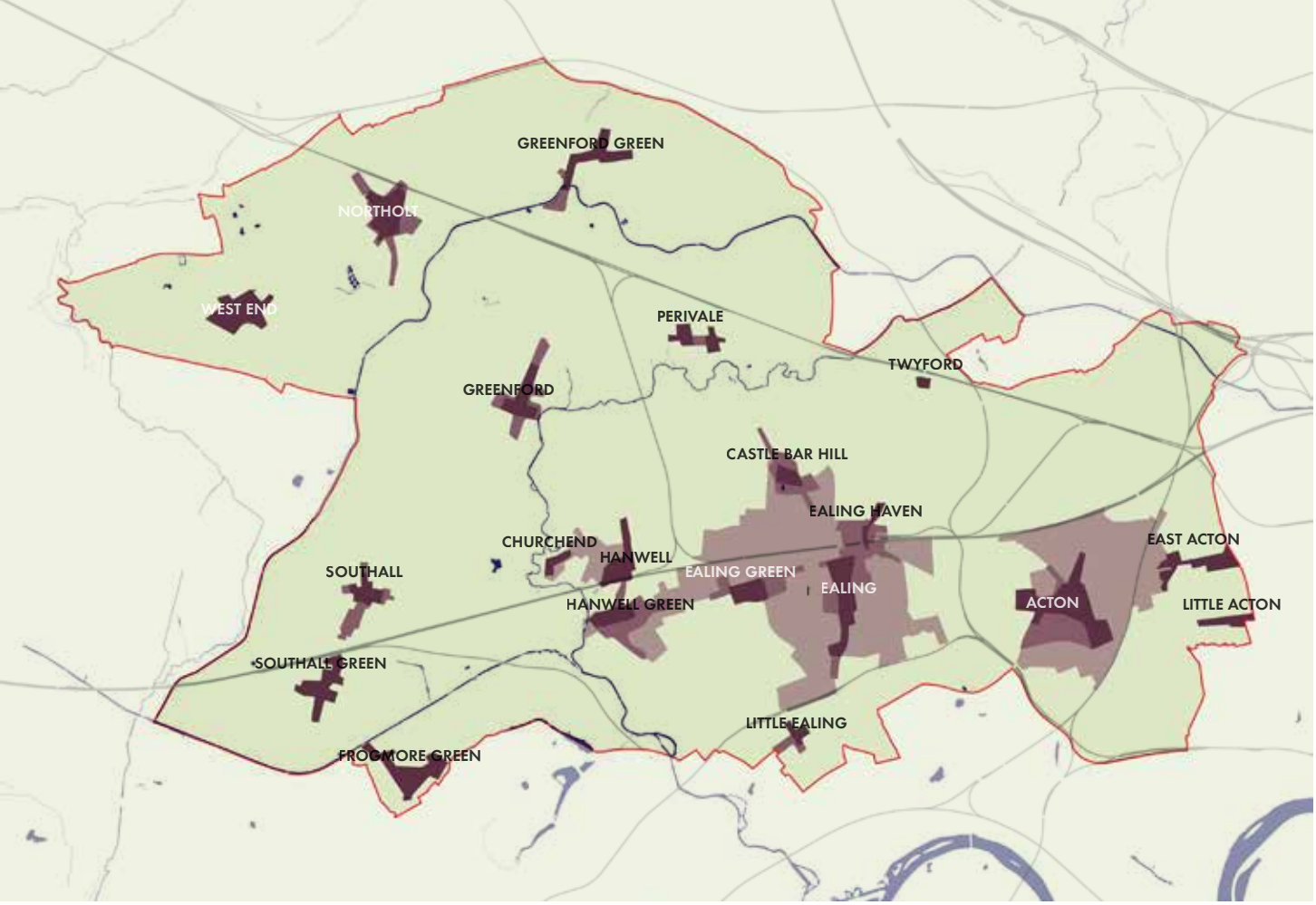
The Wharncliffe viaduct viewed from Brent Meadow in 1837

A lock and lock-keeper's gate along the Grand Union Canal

EARLY 19th CENTURY (1800 - 1849)

During the early 19th century, a number of catalytic changes occurred in the borough. Among these were the opening of the Paddington Branch of the Grand Union Canal in 1801 and Isambard Kingdom Brunel's construction of the Great Western Railway in 1833. Together, this infrastructure brought better connectivity and greater prosperity to this area of outer London.

Ealing Broadway station opened in 1838 and, as a result, once discrete villages such as Ealing Haven, Ealing Green and Ealing proper expanded towards each other to become a single, larger place. This process of amalgamation also occurred between Hanwell and Hanwell Green and was set in train between Acton, Little Acton and Acton proper.



LATE 19th CENTURY (1850 - 1899)

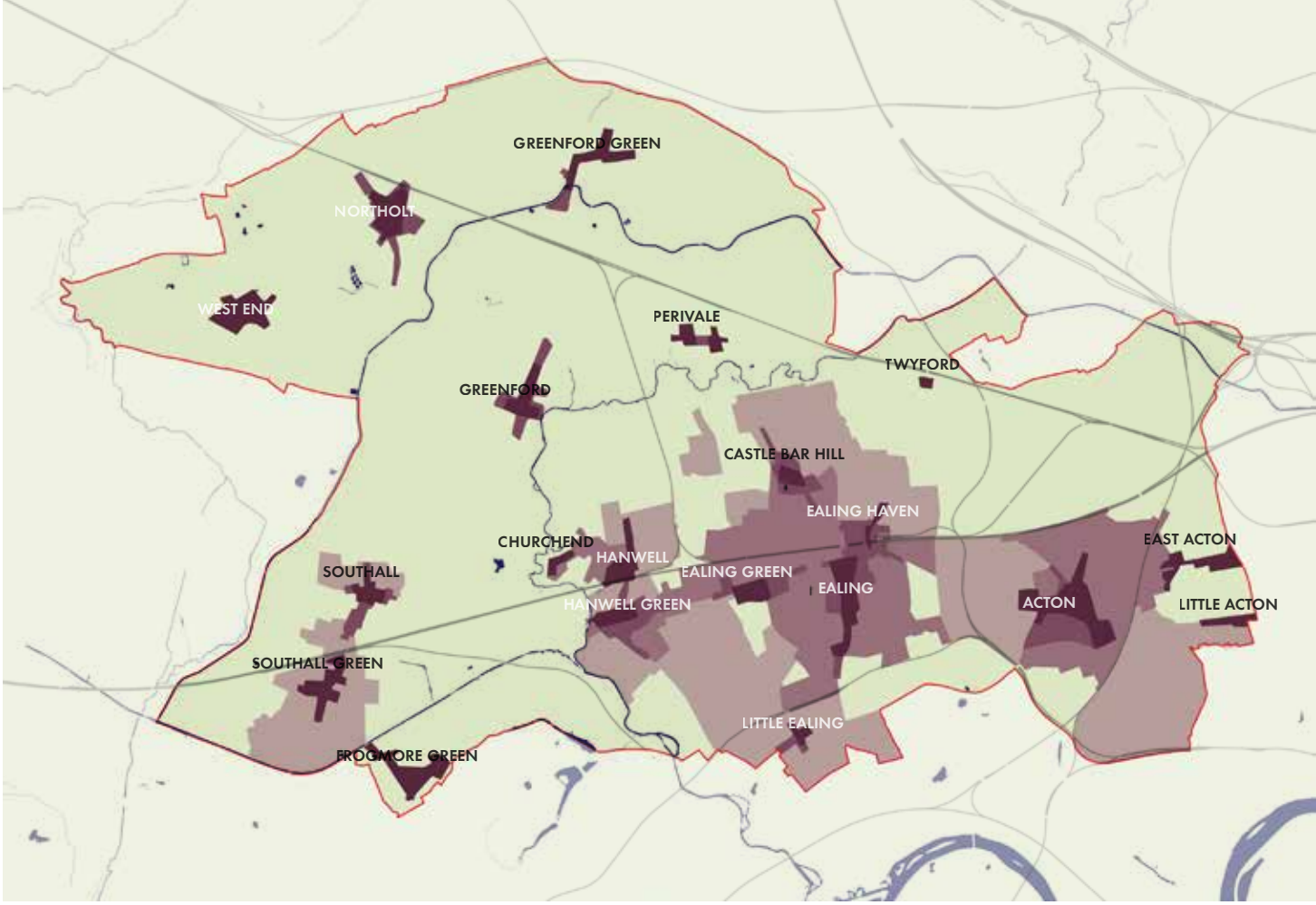
In the Victorian period, the southern half of the borough continued to expand with Ealing becoming a town in its own right. Uninterrupted urban development extended as far west from the town as Hanwell and as far north as Castle Bar Hill. During this time, Ealing's Broadway became a significant, linear shopping destination. Acton also witnessed considerable growth, almost tripling in land area by the late 19th century.

The demands of a growing population meant that many new streets had to be laid alongside houses with better sewage systems. Potable water was supplied from the newly built Fox Reservoir which opened in 1888. The Uxbridge Road saw various banks, shops, schools and civic buildings including the Town Hall which today is Grade II listed.

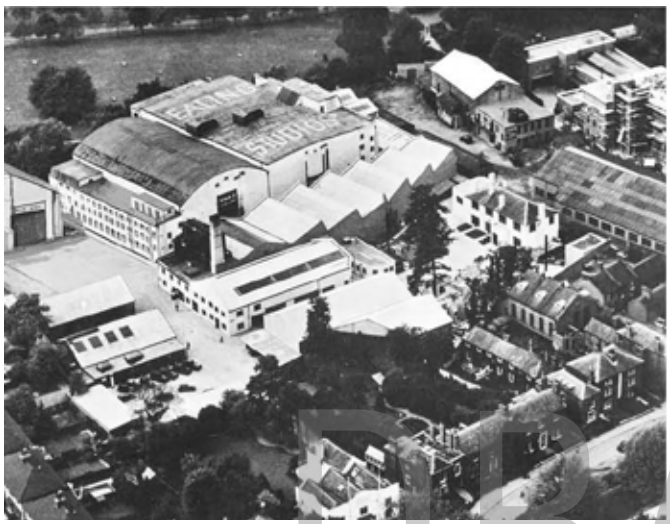
While some parts of the countryside were transformed for urban developments, other green open spaces were transformed into more formal public spaces such as Walpole Park, Ealing Common and Lammas Park.

Horse-drawn transportation along the Uxbridge Road in 1881

Aerial view of the Fox Reservoir and Hanger Hill Park



The first electric tram along The Broadway appeared in 1901



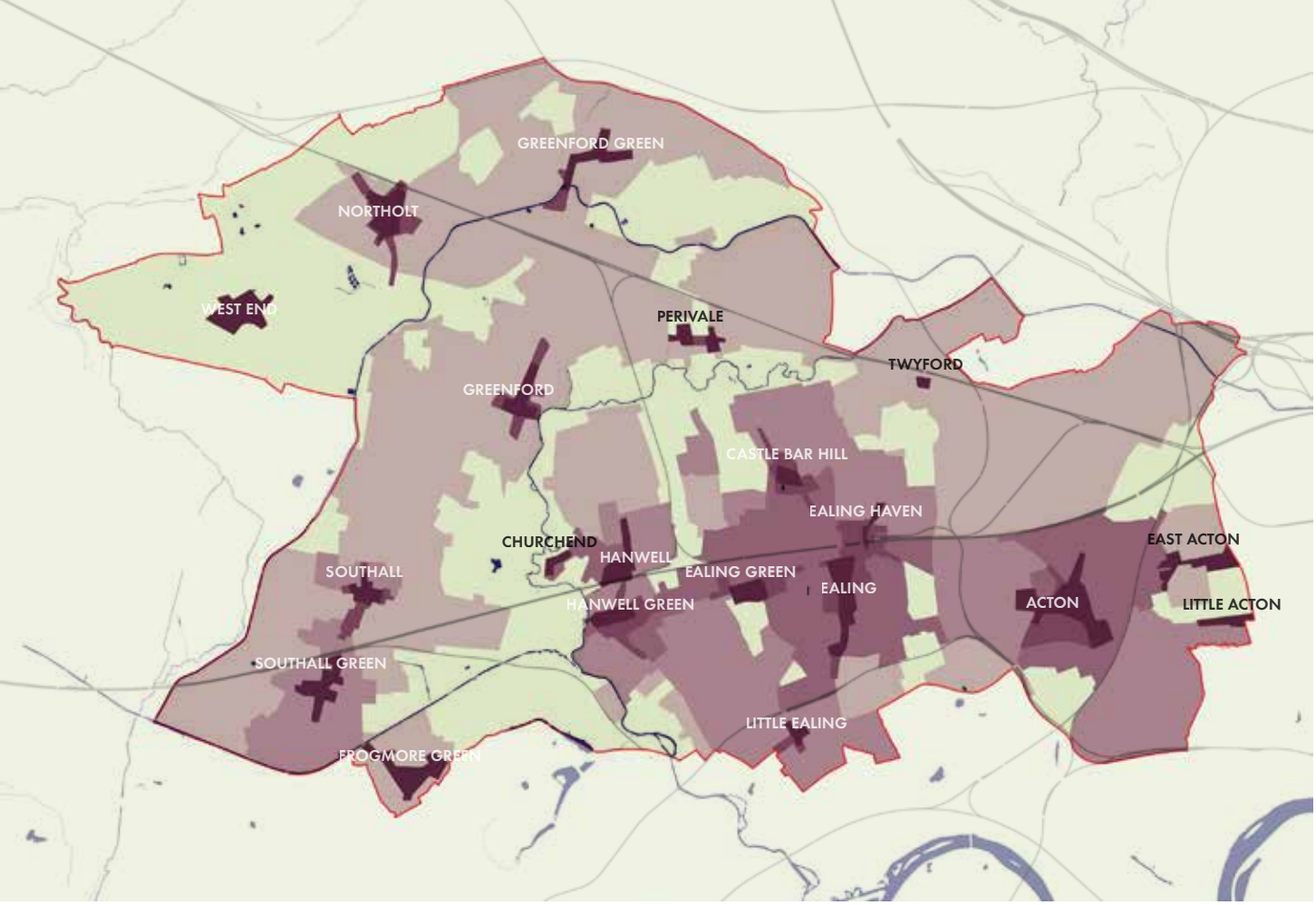
Aerial view of the Ealing Studios which opened in 1902

PRE-WAR 20th CENTURY (1900 - 1917)

Ealing became the first municipal borough of Middlesex during the modern era, highlighting its dual role as both a growing urban centre and an idyllic suburban borough.

To the west of the river Brent, most of the land either side of the Uxbridge Road had undergone significant urban development. By contrast, the west of the borough remained as it had been for much of the 18th and 19th centuries - a network of discrete villages. The exception to this was Southall which was expanded in a linear way along South Road during the early 1900s.

In 1901, the town's transport infrastructure was further improved when the first electric trams began to circulate on The Broadway alongside horse-drawn carriages. These trams provided commuters with a direct line of transport between Ealing and London, strengthening the borough's reputation as the 'queen of the suburbs'.



INTER-WAR 20th CENTURY (1918 - 1945)

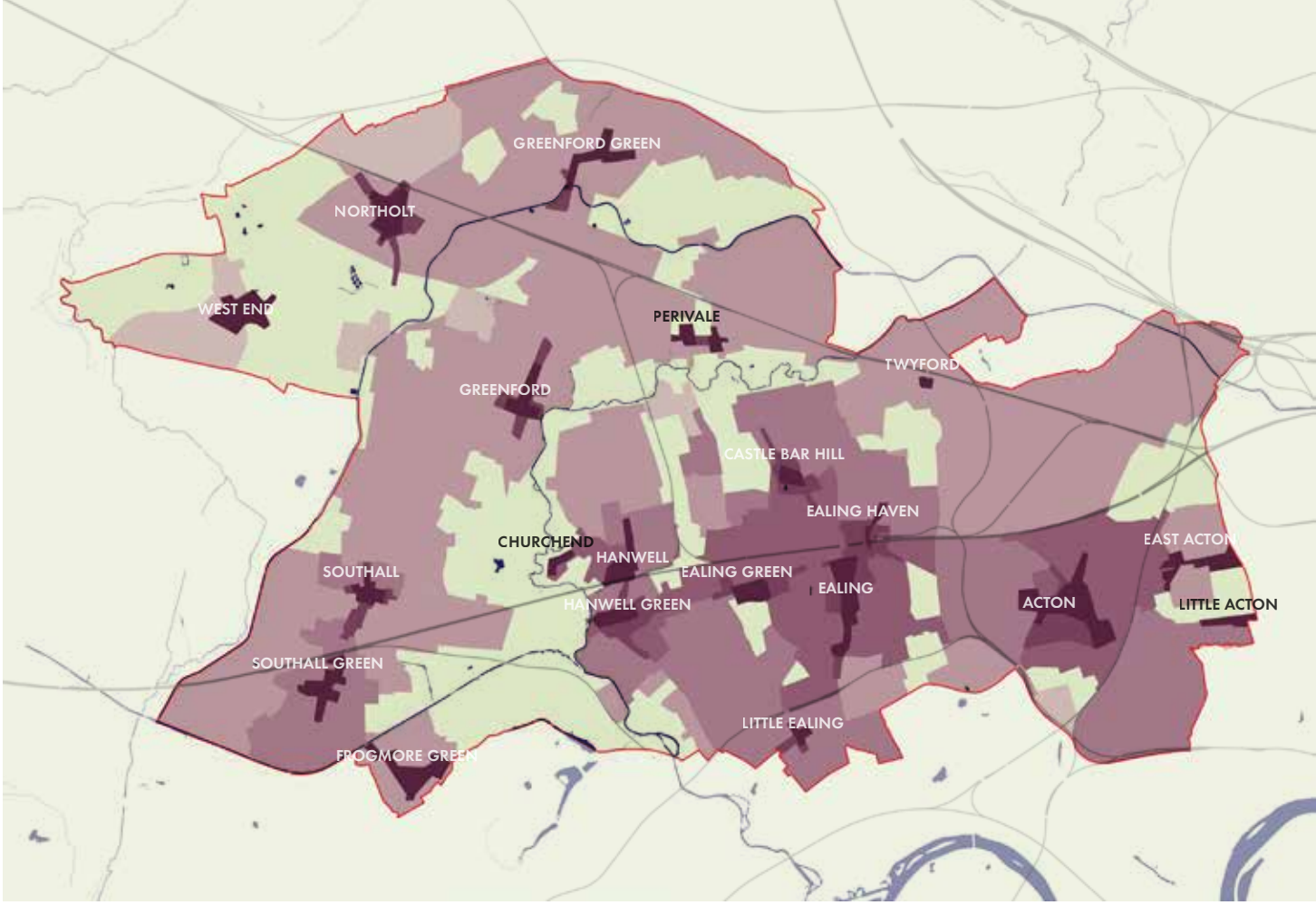
The period between the two World Wars was the most significant phase of growth across all parts of the borough. During these years, what were once relatively minor places such as Northolt, Perivale and Greenford suddenly became centres of much larger neighbourhoods around them of suburban, Edwardian character.

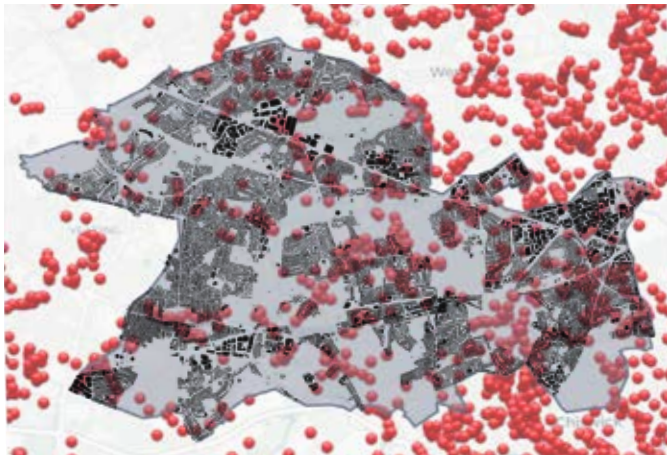
This phenomenon also occurred north of already established urban centres such as Acton thanks to the extension of the London Underground Central line during the 1920s.

The combination of relatively low land values along the Brent River Valley and better connectivity thanks to new stations and highways infrastructure (such as the construction of the North Circular Road in the 1930s) meant that places such as Southall, Acton, Greenford and Perivale also attracted a considerable amount of industrial enterprises to the borough. This commercial intensification was so great that, by 1940, the area surrounding North Acton at Park Royal had become the largest industrial estate in Europe.

Ealing Broadway Central Line station in 1920

North Circular Road under construction in the 1930s





1946 Bomb damage during the Blitzkrieg

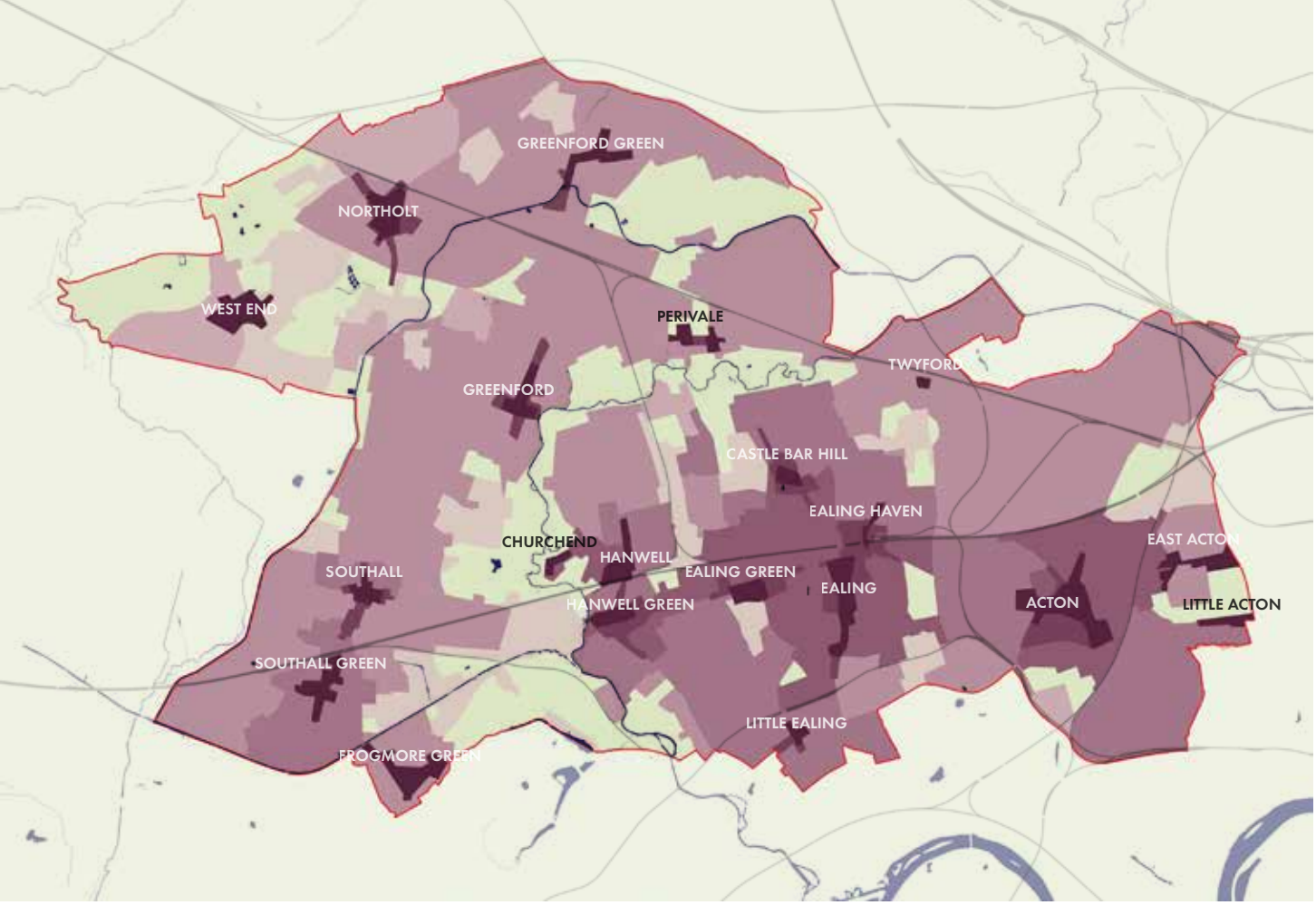
Construction of the Westway in 1970

POST-WAR 20th CENTURY (1946 - 1972)

Although bomb shelling was widespread across the borough during the Blitzkrieg, Ealing did not suffer from as much large-scale damage as inner London boroughs. Southall, Greenford and Acton town centre (which used to be far more industrial in character before the Second World War) were heavily targeted during air raids.

The Fox Reservoir, which was drained to confuse German pilots during the war, was subsequently transformed into a nature reserve known as Fox Wood.

Although most of the borough retained its original character after the war, it was the construction of new highways infrastructure that had the most destructive effect on neighbourhoods in the latter part of the 20th century. During the 1970s, a major east-west motorway known as the Westway was laid directly across places such as Perivale, dividing the original settlement.



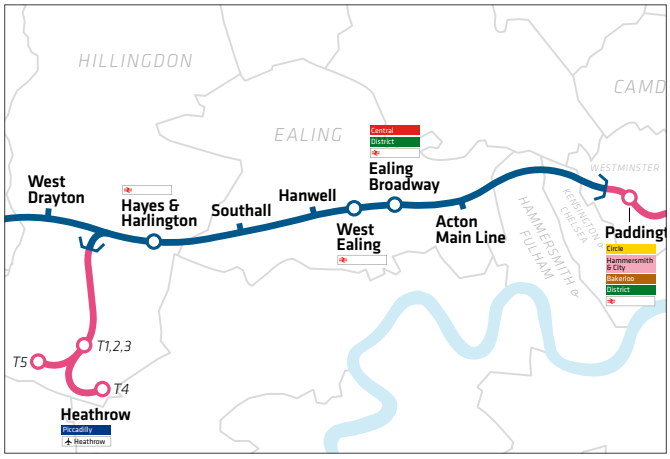
LATE 20th CENTURY (1973 - 1999)

In the last decades before the millennium there was a continued outward expansion of early 20th century suburbs, albeit to a much lesser extent. Many of these more recent suburbs encroached into the River Brent Valley between Southall and Hanwell and between Northolt and West End.

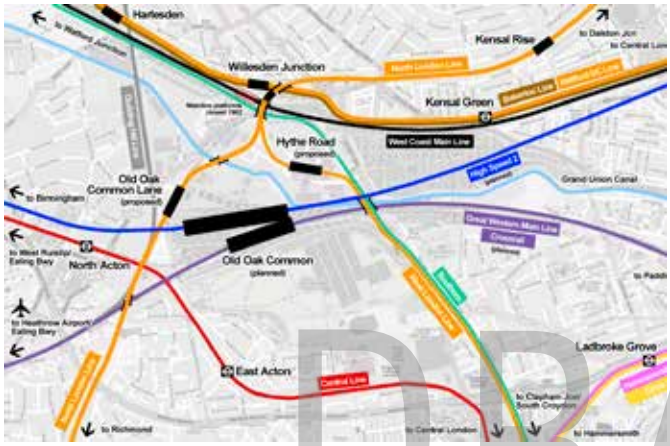
In Ealing proper, two flagship projects were built during this period. Perceval House (home to Ealing Council and completed in 1982) and the Ealing Broadway Shopping Centre (completed in 1985), reflected the strong presence of both the public and private sectors in the life of the town centre.

Perceval House home to Ealing Council and completed in 1982

Ealing Broadway Shopping Centre opened in 1985



Proposed route and stations for the Elizabeth line within Ealing



Proposed Crossrail and HS2 interchange at Old Oak Common station

21st CENTURY (2000 - PRESENT)

In the early decades of the 21st century, the challenge facing Ealing will be one of inward intensification rather than outward expansion and transport infrastructure will once again play a major role in stimulating urban developments across the borough.

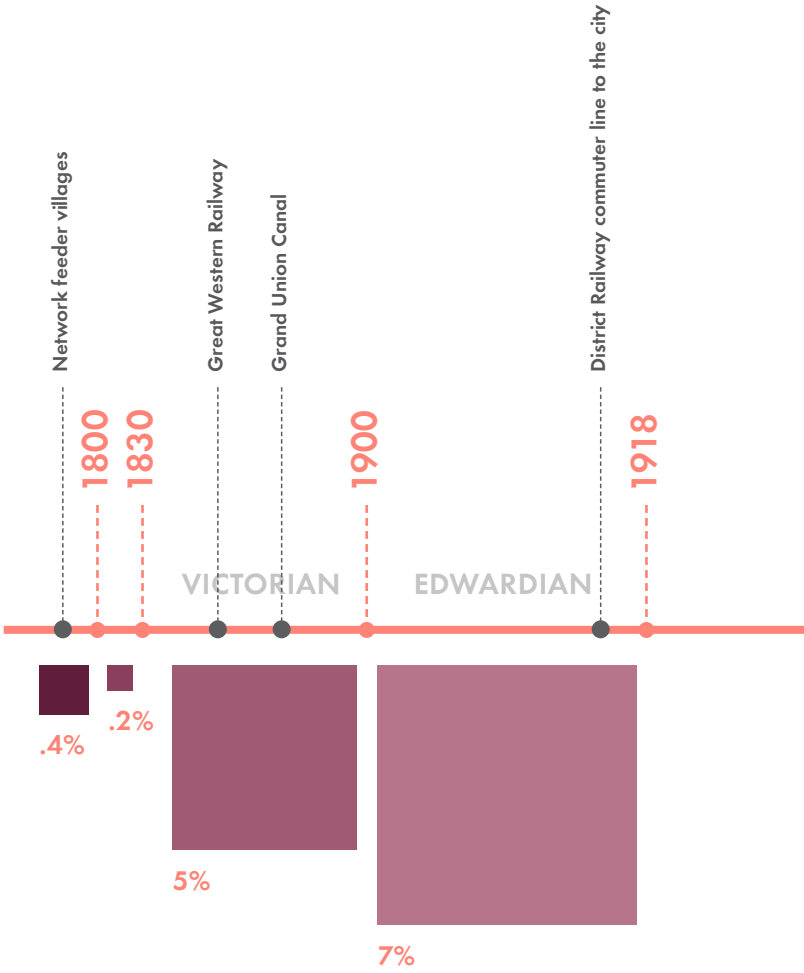
Five Crossrail stations are planned in Ealing, four of which will be refurbished, providing increased transport capacity and faster journey times to London and to Heathrow Airport. It is expected that full services across the Elizabeth line route from Reading and Heathrow in the west to central London, Abbey Wood and Shenfield to the east will commence by mid-2022.

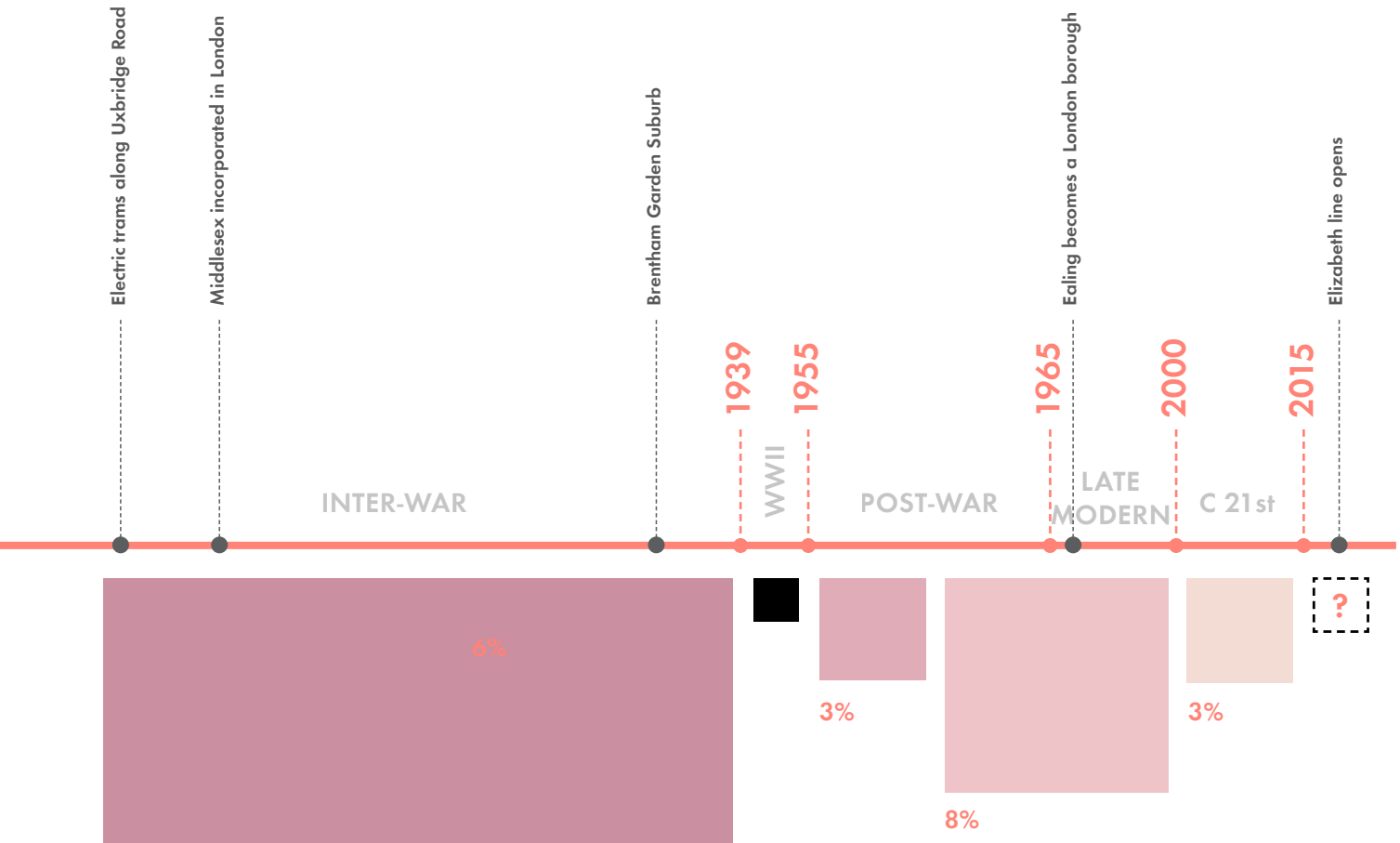
The proposed HS2 station at Old Oak Common will see high speed rail services to the midlands, Scotland and the North and access to central London and Heathrow via Crossrail. It is also intended to catalyse the regeneration of the eastern fringe of the borough which is being managed by the Old Oak Common and Park Royal Development Corporation.

31.4%

GROWTH TIMELINE

The following timeline illustrates (in lilac), the relative proportion of land that has been used for urban or suburban development in Ealing, expressed as a percentage of the overall land area in the borough. Above (in pastel green), is the percentage of land in the borough that remains as publicly accessible blue and green open space.




Electric trams along Uxbridge Road
Middlesex incorporated in London
Brentham Garden Suburb
1939
1955
1965
Ealing becomes a London borough
2000
2015
Elizabeth line opens
INTER-WAR
WWII
POST-WAR
LATE MODERN
C 21st
6%
3%
8%
3%
?
42%

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3 GEOGRAPHIC CHARACTERISTICS

The borough of Ealing comprises a large land area relative to most local authorities in London. It is unsurprising, therefore, that within this area there are a wealth of geographic features, including:

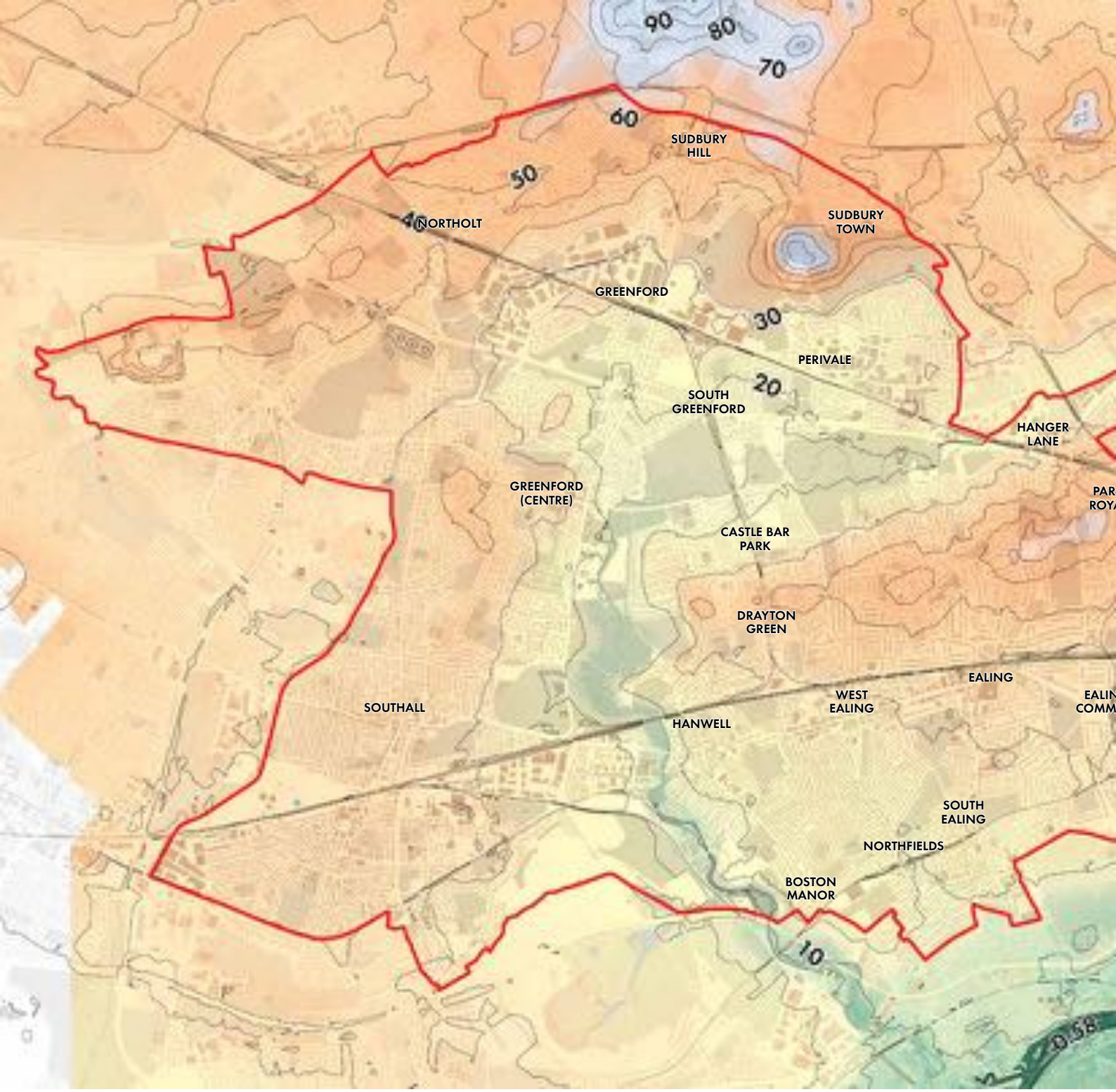
- The river Brent along with its relatively narrow (approximately 1km wide), yet verdant valley.
- Long, man-made canals, locks and quays which extend the existing blue infrastructure network.
- A landscape which rises gradually from the Thames to the south towards a plateau of higher ground to the north-west as it approaches the rim of the London Basin.
- A variety of hills towards the north which provide wide views across the borough.

Features such as these not only give Ealing its own, distinctive physical character - they also present opportunities for future developments to enhance the natural environment. Examples of such projects include protecting the geodiversity of sites such as Horsenden Hill, creating new opportunities for the enjoyment of landscapes and vistas (such as at Northala Fields), or initiatives that encourage the appreciation of Ealing's vast waterway network (such as the Capital Ring Walk).

Artificial hill next to the A40 Western Avenue at Northala Fields

Views southwards from Sudbury Hill towards Greenford Quays

Terrace at Goshawk Court responding to the site's topography



The natural character of Ealing is informed by the combination of several topographical features. Firstly, a sequence of hills along the northern edge of the borough form a ridge which rises from Northolt to Harrow on the Hill and offer sweeping southward vistas across the borough.

A second, lower ridge rises eastwards from Dormer's Wells reaching its apex at Hangar Hill. Ealing's highest point is Horsenden Hill which is 84m above sea level. There are other artificial (e.g. Northala Fields) and natural (e.g. Sudbury Hill) summits which provide attractive local views and distinctive settings for residential neighbourhoods.

The valley formed by the river Brent is a significant natural feature in the borough which has informed its urban development. This wide and relatively flat floodplain coincides with much of the borough's green open spaces. Overlaying the footprint of existing buildings onto the contour map also reveals the significant extent to which coarser, industrial developments have been situated along the axis of the Brent Valley.

TOPOGRAPHY

Borough boundary
90 m (above sea level)
80 m
70 m
60 m
50 m
40 m
30 m
20 m
10 m
0 m (sea level)


Summit of Northala fields

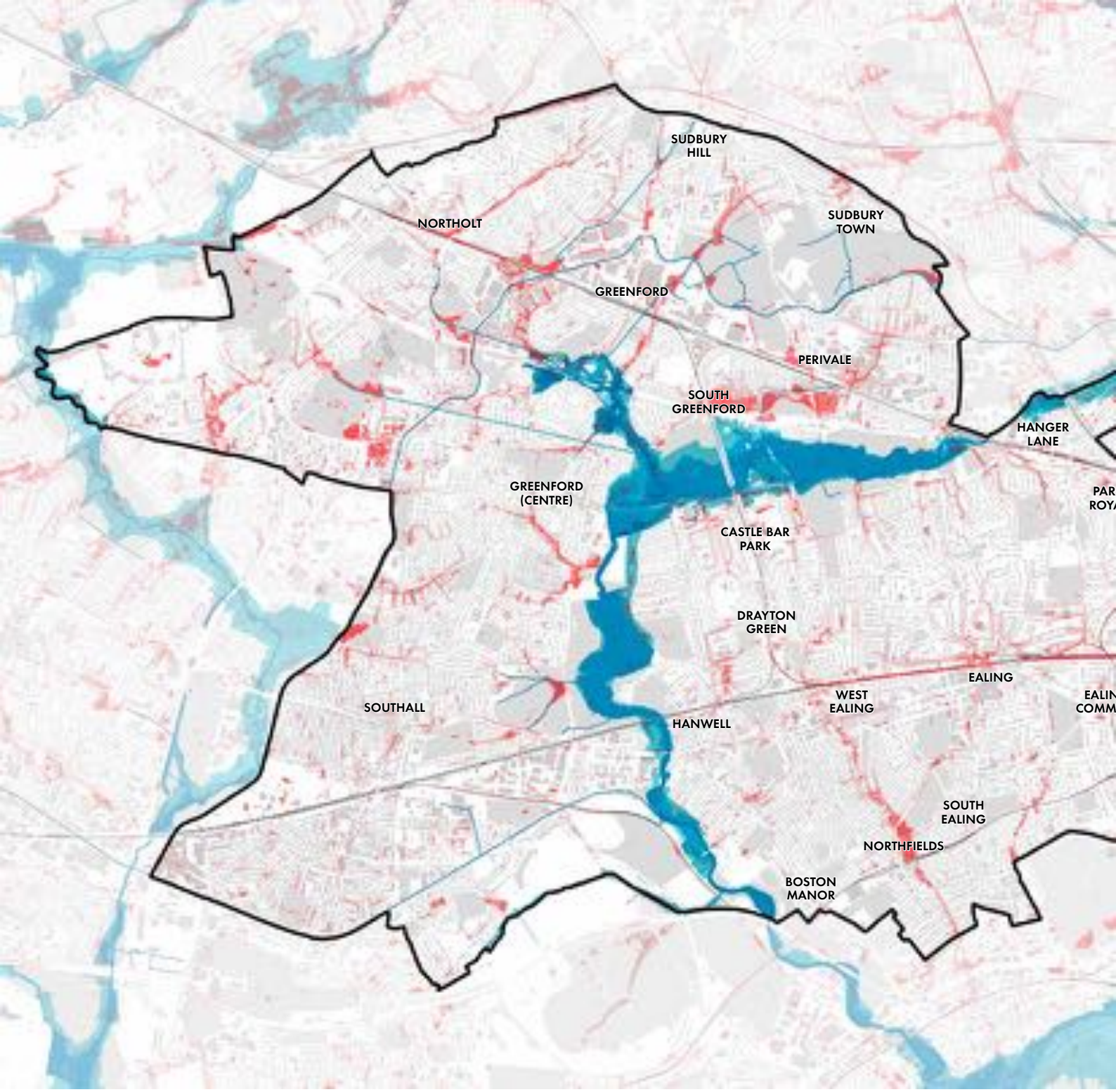

View towards Southall


View towards Sudbury Hill


View towards the City of London


View towards Horsenden Hill and Wembley


View towards Harrow on the Hill



The river Brent is the primary, natural waterway that bisects the borough of Ealing. This tributary begins its course in Hendon and flows west into the borough along Perivale and then southwards along the Brent valley. The river leaves the borough at Boston Manor and continues on a southeastward course until it eventually meets the river Thames at Brentford.

The Grand Union Canal is the secondary, artificial waterway to feature in the borough. One section of this canal connects London to Hayes from Brentford to Bull's Bridge respectively via Hanwell and Southall. Another section of the Grand Union Canal, known as the Paddington branch, is fed by water from the Brent Reservoir and links neighbourhoods from Southall to Horsenden through various locks, quays and marinas.

Much of the Brent Valley comprises a flood zone between categories 2-3b. Conversely, the Grand Union Canal has limited flood risk along its route. The southwestern corner of the borough near Turnham Green is within the Thames flood plain and particularly at risk. Similarly, the area of Greenford between Marnham Fields and Perivale Fields is susceptible to flooding.

Surface rainwater flood zones exist along several key vehicular routes including Northfield Avenue near west Ealing, Wood End Lane near Northolt Park and The Parkway near Northolt. Category 3a flood zones can also be found along the Great Eastern Railway line.

BLUE INFRASTRUCTURE

Borough boundary

Detailed river network

Flood Zone 3a surface water

Flood Zone 3b

Flood Zone 3a

Flood Zone 2

Greeford bridge over the River Brent

The river Brent at south Hanwell

Maypole Dock off the Grand Union Canal

Greenford Quay off the Grand Union Canal

Sustainable urban drainage at Northala Fields

Flooding at Perivale Park in spring 2020

SUDs at Northala Fields

The borough of Ealing is situated north of the mouth of the river Brent where it meets the Thames. As such, much of the land along the Brent River Valley contains alluvial soils and other types of superficial deposits including highly shrinkable clays.

Bedrock geology is the term which describes the prevailing mass of rocks forming the earth, whether exposed at the surface or concealed beneath superficial deposits. Along the Brent River Valley, the bedrock consists of London Clay, with superficial deposits of gravels that are more extensive as it approaches the Thames. Superficial deposits are the youngest geological deposits formed during the Quaternary - the most recent period of geological time.

There is a high concentration of geodiversity at Horsenden Hill which is designated as a Regionally Important Geological Site (RIGS) for its diversity of rocks, fossils, minerals, landforms and soils that give character to the natural landscape and environment.

GEOLOGY

Superficial deposits in greater detail

- Borough boundary
- Regional Important Geological Site
- Superficial deposits
- Bedrock geology
- Lynch Hill gravel member - sand and gravel
- Langley silt member - clay and silt
- Taplow gravel member - sand and gravel
- Kempton Park gravel member - sand and gravel
- Head - clay and silt
- Black Park gravel member - sand and gravel

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5 PHYSICAL CHARACTERISTICS

There are many aspects of physical character that need to be understood, including the morphological form of urban and suburban development. Ealing has a number of defining physical characteristics including:

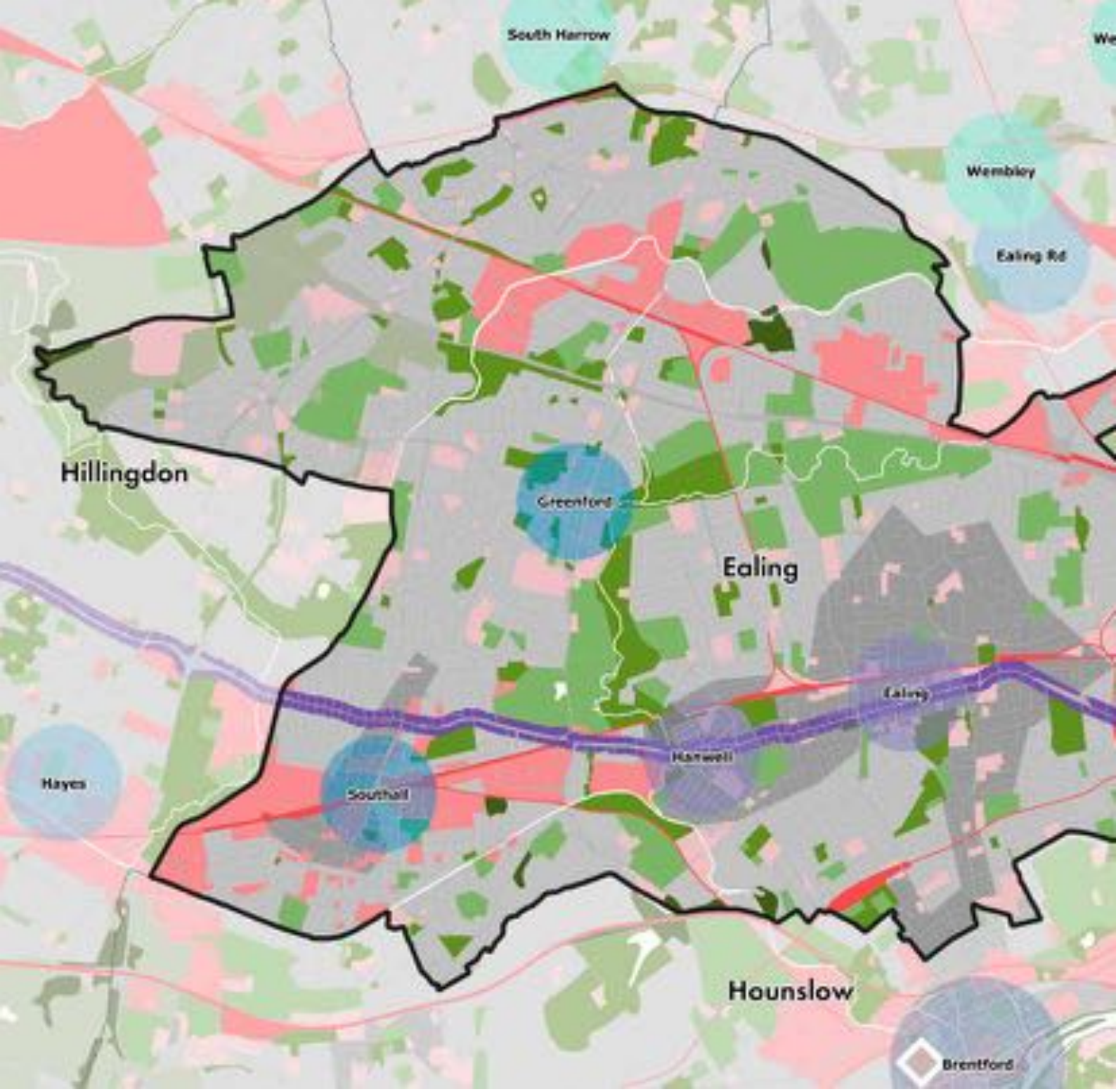
- Two key radial vehicular routes that laterally transect the north and south of the borough, including the historic Uxbridge Road and the 20th century A40.
- A leafy and green character throughout the borough with a strong network of green infrastructure including a large a number of high quality public parks and gardens and 24,000 street trees.
- A range of building heights and densities, with taller buildings and higher densities concentrated at historic town centres such as Ealing, Acton and Hanwell.
- A variety of housing types including detached, semi-detached, terraces and blocks of flats, as well as the pioneering Brentham Garden Suburb in Pitshanger.
- An overall distinction between the central and eastern parts of the borough, that feel more dense and similar to inner London; and western and northern parts of the borough that are less dense and less well-connected, sharing more characteristics with an outer London borough.

Corner terrace at Brentham Garden Suburb, Pitshanger

Post-war high density housing estate, Acton

The A40 is a key radial route into and out of inner London, as seen from Northala Fields

Terrace at Goshawk Court responding to the site's topography



By its nature, local character and sense of place comprise many layers that accumulate over time and are the result of various forces. The diverse character we observe today across our built and natural environments are the outcomes of different forces and pressures, historic and contemporary, visible and invisible, short and long lasting. Places respond differently to these forces and can often bare the hallmarks of a certain era or way of thinking, with the urban form of town and cities particularly susceptible to changing paradigms and policies.

The plan above is an excerpt from the Historic England study on London's Local Character and Density (2016), illustrating the pattern book of components that make up Ealing's physical character.

The results of dominant, historic drivers of change can be seen today including the Uxbridge Road running laterally across the south of the borough, a historic arterial road leading into and out of inner London; the necklace of centres that line this route such as Acton, Ealing and Hanwell and their associated clusters of urban and suburban growth; the Victorian rail infrastructure transecting the north of the borough and the swathes of industrial land contiguous with it, bookended by Greenford and Old Oak and Park Royal; and the open green space of the River Brent valley carving through and spatially separating two halves of the borough between the central-east and the north-west areas.

COMPONENTS OF CHARACTER


Wharncliffe Viaduct, River Brent Valley


Victorian terraces, Acton Vale


Horsenden Hill, Horsenden


Churchfield Road, Acton

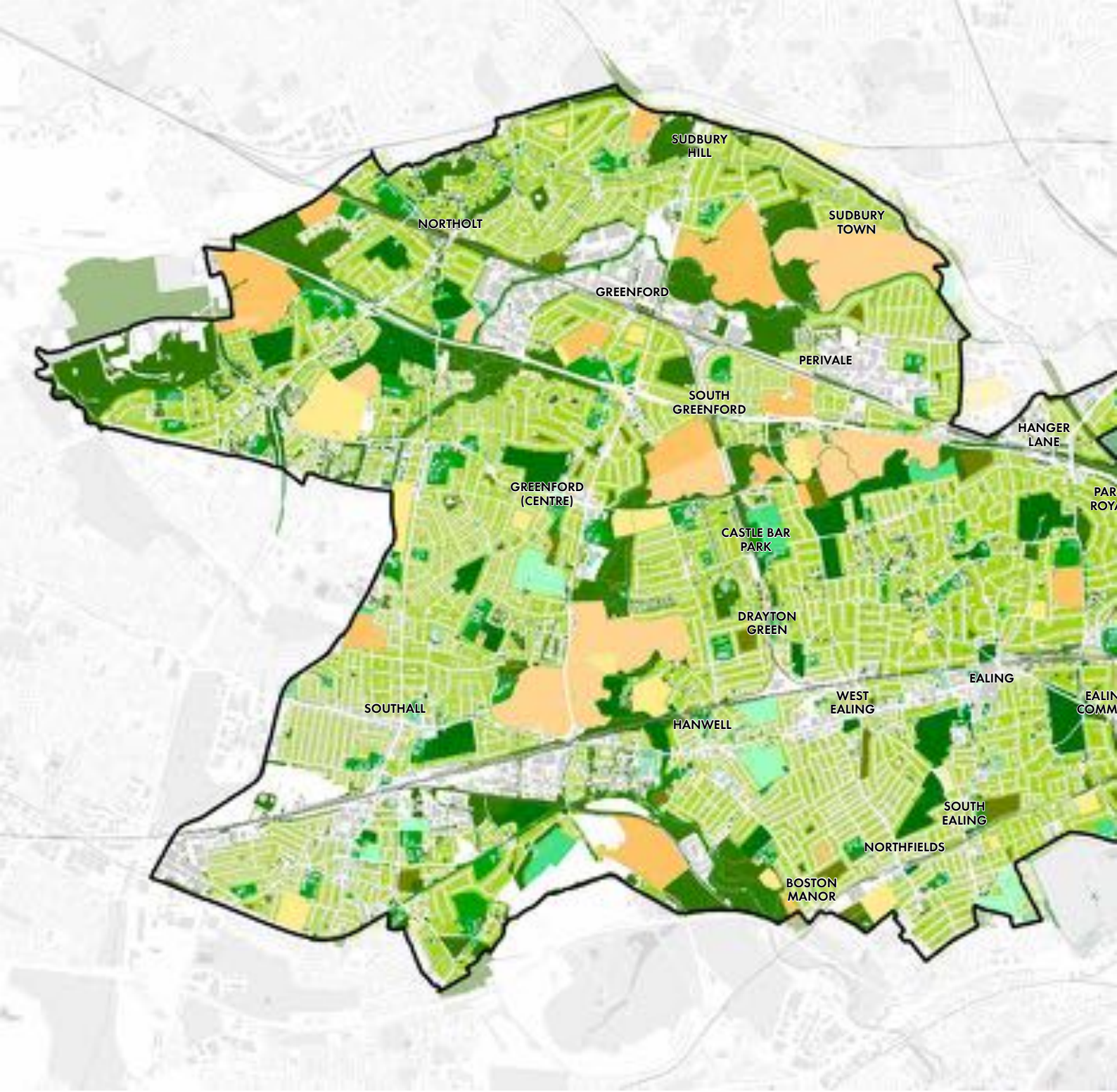

Christ the Saviour Parish Church, Ealing

Industrial warehouses, Old Oak and Park Royal

Borough boundary

Town Centres
- 20th Century
- Industrial
- Railway Town Centres
- Historic
- Former Medieval Market Towns
- High road centre
- High road

19th Century Industry
- Industry
- Infrastructure
- Waterways
- Green spaces
- Green Belt
- Heathrow
- Victorian suburbs
- Victorian entrepreneurship
- Georgian planning growth
- The Square Mile



Ealing is a borough synonymous with its green character, boasting a wealth of tree-lined streets; network of public parks and gardens; recreational green spaces and playing fields; large private suburban gardens; swathes of open green spaces running through the River Brent valley; and long views dense with woodland tree tops towards rising land at Horsenden Hill.

Its large public parks include Brent Valley Park, Pitshanger Park and Northala Fields, whilst a sequence of neighbourhood parks act as an important focus for a number of communities clustered around Ealing Common, Acton Park, Walpole Park and Lammas Park.

Ealing's large suburban neighbourhoods are particularly verdant in character, blessed with large private gardens and mature trees. Indeed, the borough is home to over 24,000 street trees and a further 50,000 trees in parks, open spaces and cemeteries. Moreover, 24% of the borough's surface area is made up of private gardens, meaning a close relationship to everyday nature is largely attainable.

That said, the character of these private gardens varies greatly across the borough. From the generous lawns, hedges and trees found in the detached and semi-detached estates of Brentham Garden Suburb, to the more tightly packed and densely populated residential Victorian terraces at Southall, with front and back gardens lost to car parking courts, garages, studios and annexes.

OPEN SPACES

Green open spaces characterise much of Ealing and can often be a focal point in historic neighbourhoods, similar to the function of a village green, Brent River Valley Park

Arthur's Court, Greenford, where houses and flats back onto one another and create the condition for a linear pocket park, used also for bicycle storage and refuse storage.

An excerpt from Brentham Garden Suburb in Pitshanger, where large front and back gardens are commonplace.

In some cases it might be possible to explore models of residential intensification where large back gardens are consolidated and access is arranged to a central plot for residential uses.

Legend

Sports open space
- Playing Field
- Golf Course
- Bowling Green
- Tennis Court
- Other Sports Facility

Public amenity open space
- Public Park Or Garden
- Natural
- Play Space
- Allotments Or Community Growing Spaces
- Amenity - Residential Or Business
- Amenity - Transport
- Camping Or Caravan Park

Institutional open space
- Cemetery
- Institutional Grounds
- Religious Grounds
- School Grounds

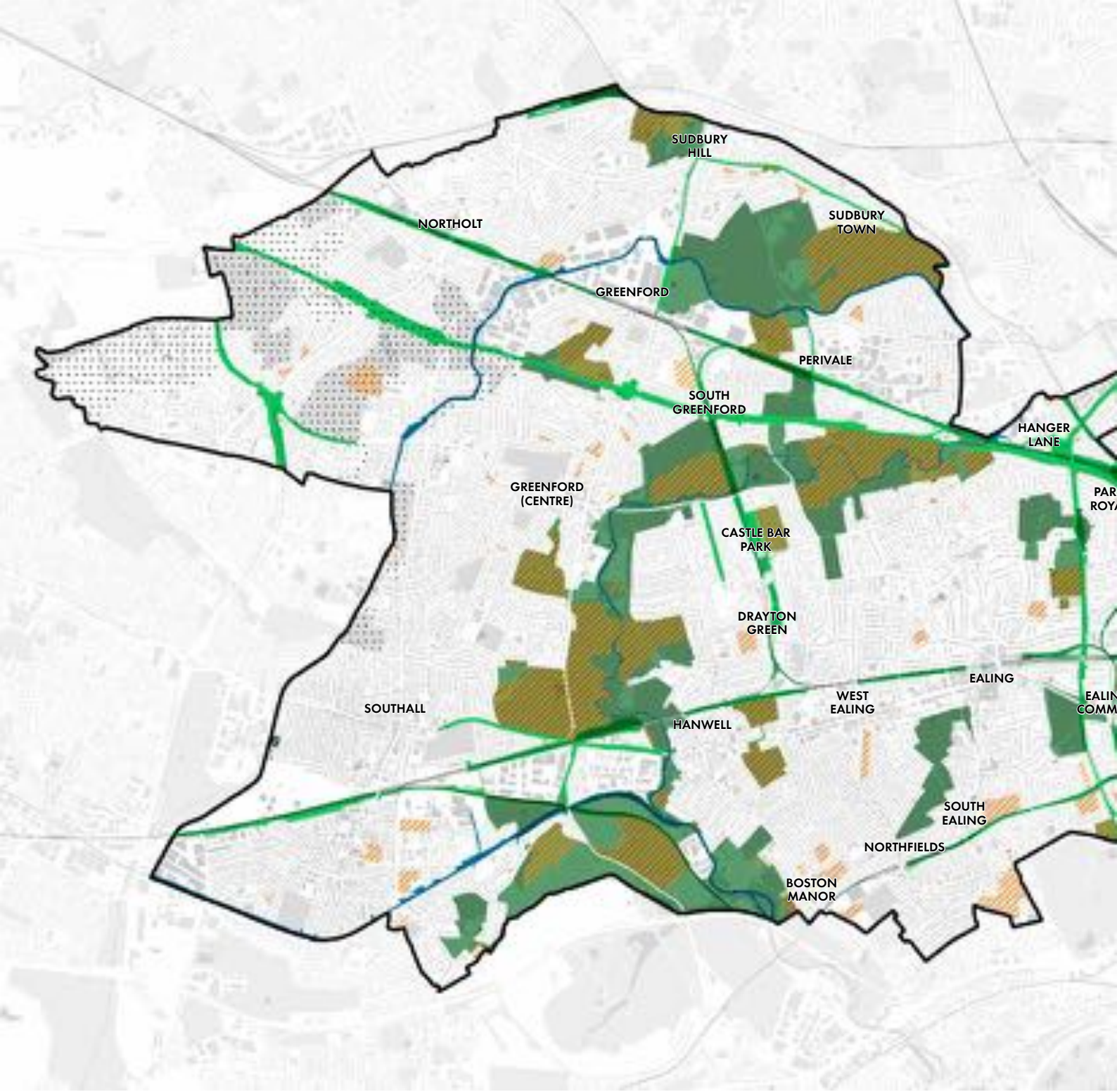
Private open space
- Private Garden

24%

Ealing borough comprises private gardens

24,000

Street trees in Ealing borough



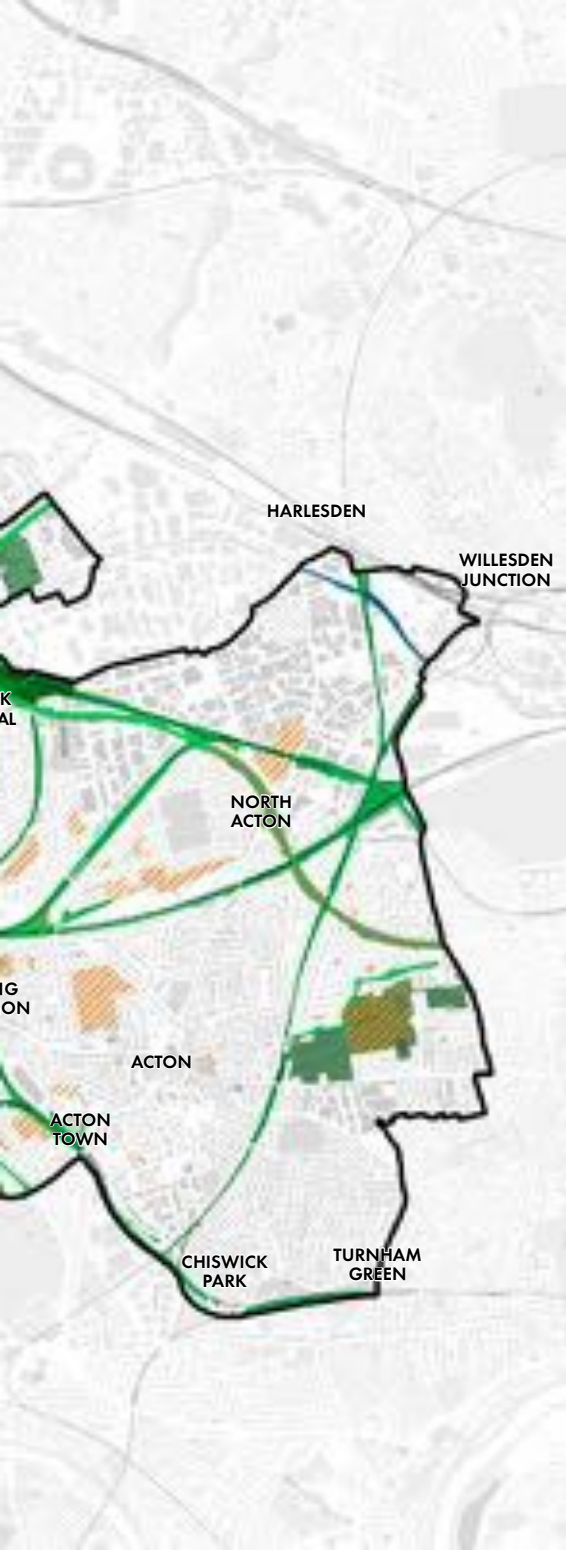
In keeping with Ealing's green character, part of its identity is the natural landscape and varied network of green and blue infrastructure intrinsic to this. A number of policy designations exist to protect, maintain and enhance the quality of existing infrastructure, as well as deliver new provision where possible to support jobs and homes.

Ealing's over arching Green Infrastructure policy in the adopted Development Strategy 2026 focuses primarily on open space and waterways, with more granular designations illustrated in the plan above. Parks, Green Belt, Metropolitan Open Land and Green Corridors have been identified, alongside a Blue Ribbon network designated along the River Brent and Grand Union Canal.

It is useful to note the Green Corridor designations primarily follow existing linear infrastructure, such as the railway lines and radial routes such as the Uxbridge Road and A40. They serve a purpose of helping to link the network of open spaces across the borough, with railway verges tending to function well as important wildlife movement corridors, although lack public amenity use.

Designation of key vehicular routes are typically aspirational to secure 'grey to green' transformation through landscape improvements as well as supporting enhanced walking and cycling infrastructure. Blue Ribbon designations along key waterways seek to secure enhanced nature conservation, flood management and walking and cycle provision.

GREEN AND BLUE INFRASTRUCTURE




SUDS at Northala Fields, Northolt


Play facilities at Heathfield Gardens, Acton


Community allotments, Hanwell

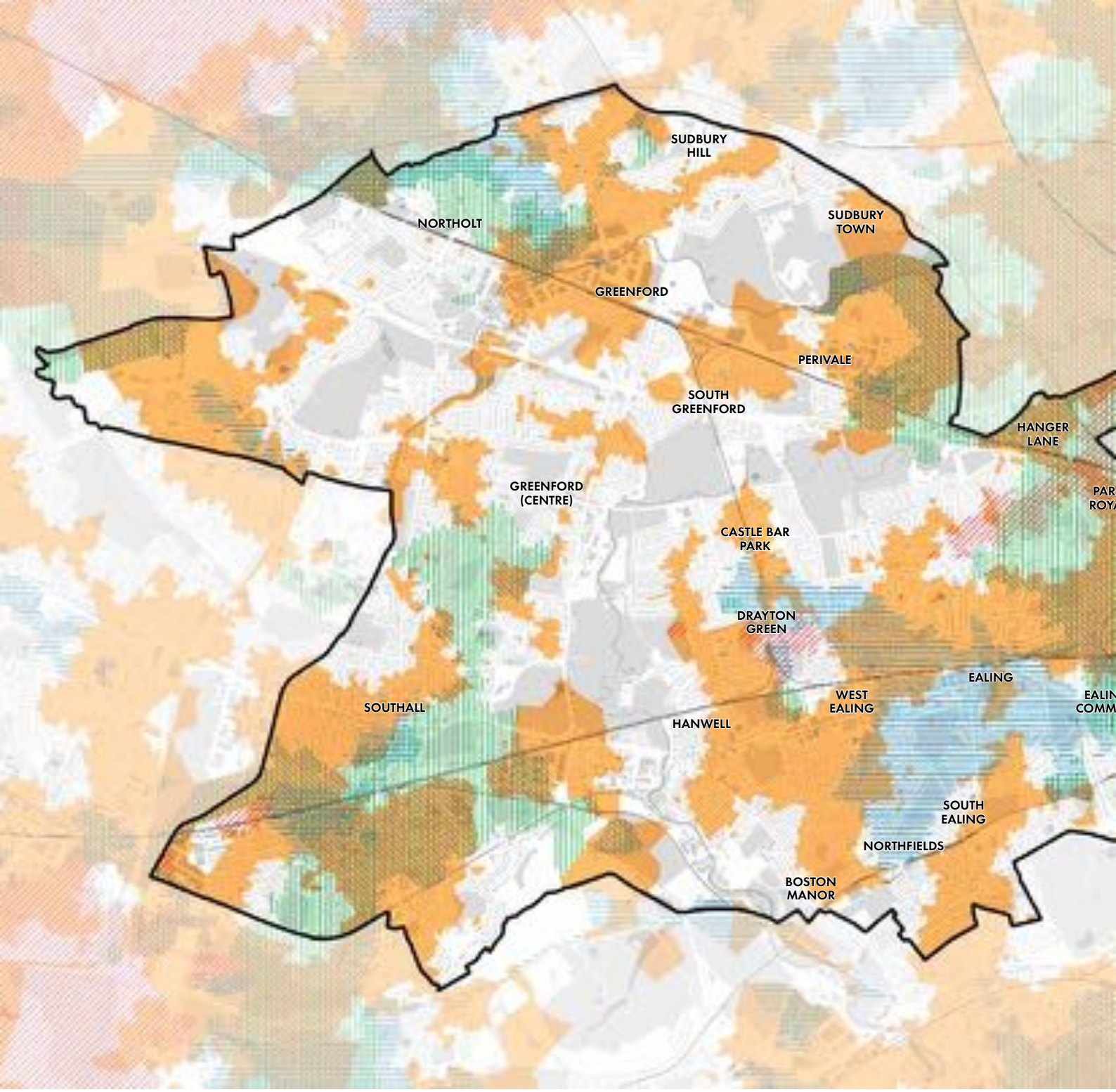

Walking and cycling Green Corridor, Greenford


Brent River Valley Park, Hanwell


Grand Union Canal Blue Ribbon, Greenford Quay

Flowering Meadow, Perivale Park


Mature street trees and planted central reservation, Perivale

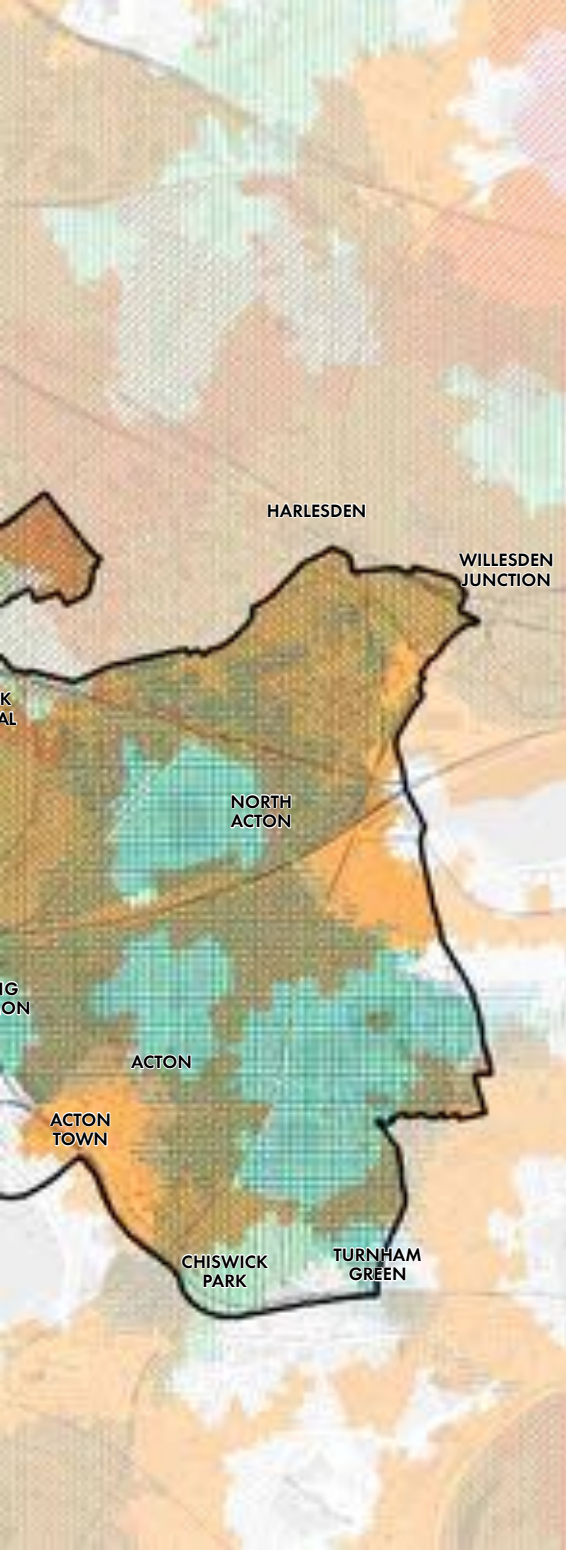


Strategic green infrastructure including open green space performs a multitude of important functions including climate change mitigation, contributes to improved air quality and amenity use to support healthy lifestyles. There are parts of the borough that suffer from poor access to open space, with the plan above illustrating areas of local (2 hectares and above), district (20 hectares and above) and metropolitan (60 hectares and above) park deficiency.

Parks are an important element of mixed and healthy communities, particularly in more dense urban environments. It is evident central and eastern parts of the borough generally see greater access issues, with access to local parks particularly prominent at town centres such as Southall, Ealing Broadway and Acton.

As the general growth trend towards intensification of urban and suburban areas increases, access to open spaces will be increasingly important. Whilst the growth strategy may be unable to introduce local parks of 2 hectares in size, provision of high quality small and pocket parks will be essential.

Areas currently experiencing deficient access could be targeted for specific area-based guidance, whilst areas with good access could be targeted for new homes delivery; compliant with London policy G4 where all new homes must be within 400m walking distance of a local park.



PUBLICLY ACCESSIBLE OPEN SPACE DEFICIENCY

Open spaces need to be of high quality and support play and recreation. Parks and open spaces can be a range of sizes and serve a different catchment dependent on this.

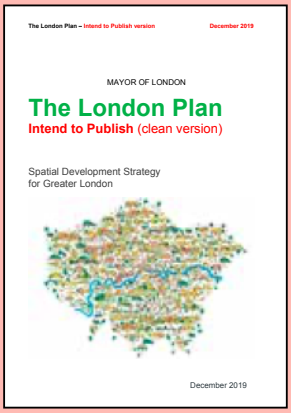
In areas of local park deficiency, it is important for new development to introduce small and pocket parks of high quality with a range of facilities to support communities.

Above left: Ridding Lane Open Space, Greenford

Above right: Pocket park, Southall Waterside

Left: Northala Fields, Northolt

Draft London Plan Chapter 8: Green Infrastructure and Natural Environment Policies G4



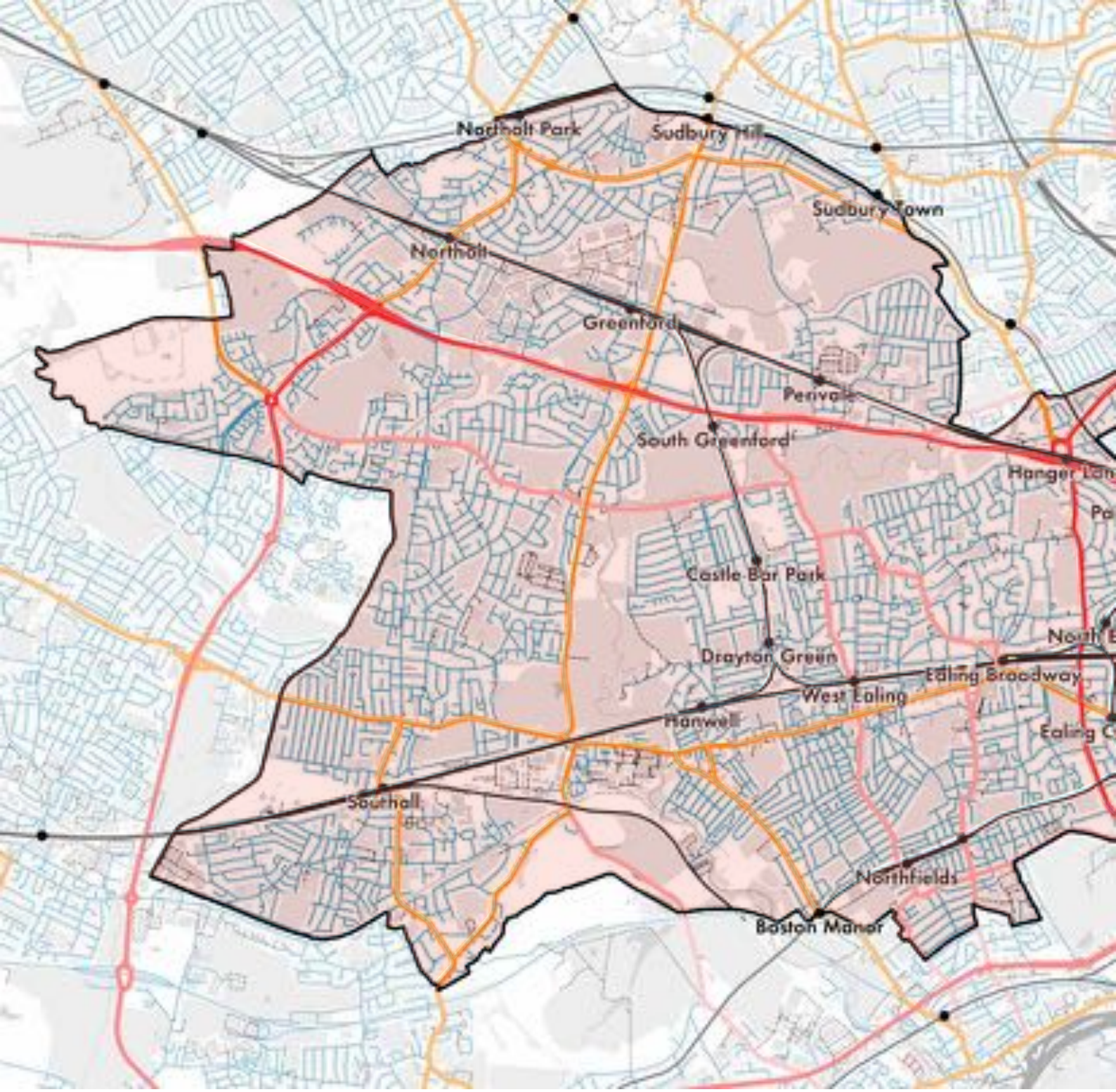
IDENTIFY
areas of open space deficiency

NEW HOMES
must be located within 400m of an open space 2ha+ in size

NO LOSS
of protected open space

MAXIMISE
open space in new development and improve connections

ENSURE
open, particularly green, space remains publicly accessible



Ealing has a strong movement network comprising a number of major roads and railway lines. Similar to many other London boroughs, Ealing is characterised by radial routes that lead into and out of inner London. The Uxbridge Road and A40 run laterally east to west across the top and bottom of the borough and see large volumes of vehicular traffic each day. The former is a historic route that threads through and connects a number of town centres, whilst the latter is a large piece of 20th century infrastructure that perforated established neighbourhoods and communities and relates poorly to areas along its path.

The plan above illustrates the road hierarchy with the primary, secondary and tertiary routes creating a super block structure at the borough-wide scale.

A number of 'pinch points' can be seen where these routes and rail infrastructure converge and overlap. These areas tend to suffer from a poor pedestrian environment and could benefit from targeted public realm and highways interventions. A vehicle for delivery could be the Green Corridor designations.

These routes feed a number of local capillary routes that provide access to homes and neighbourhoods. Ealing generally has a well-connected network of local streets; a key ingredient of robust placemaking and for resilient and healthy communities. Instances of cul-de-sacs and dead-ends can be seen with no real pattern or concentration apparent, though large scale development could seek to unpick these networks, facilitating new connections where possible.

MOVEMENT NETWORK

Looking west along the A40 from South Greenford Station. Ealing is characterised by strong radial routes that experience large volumes of vehicular traffic travelling into and out of inner London everyday. As private car journeys and ownership continue to fall over time, there will be opportunities to reimagine the character of these corridors and how intensely land either side is used. Corridors can be suitable to high density development that fronts the street when delivered in coordination with a package of public realm improvements.

An example of corridor intensification is Allies and Morrison's Kidderpore Avenue in Hampstead, north London. A contextual, character-led response within the Redington Frognal Conservation Area using a number of residential typologies including refurbishment of existing buildings. An average density of 50 dph, urban perimeter blocks of flats up to five levels front the A41 with pedestrian mews linking Kidderpore Avenue and Finchley Road with a large green space for residents at the heart of the development.

AIR QUALITY

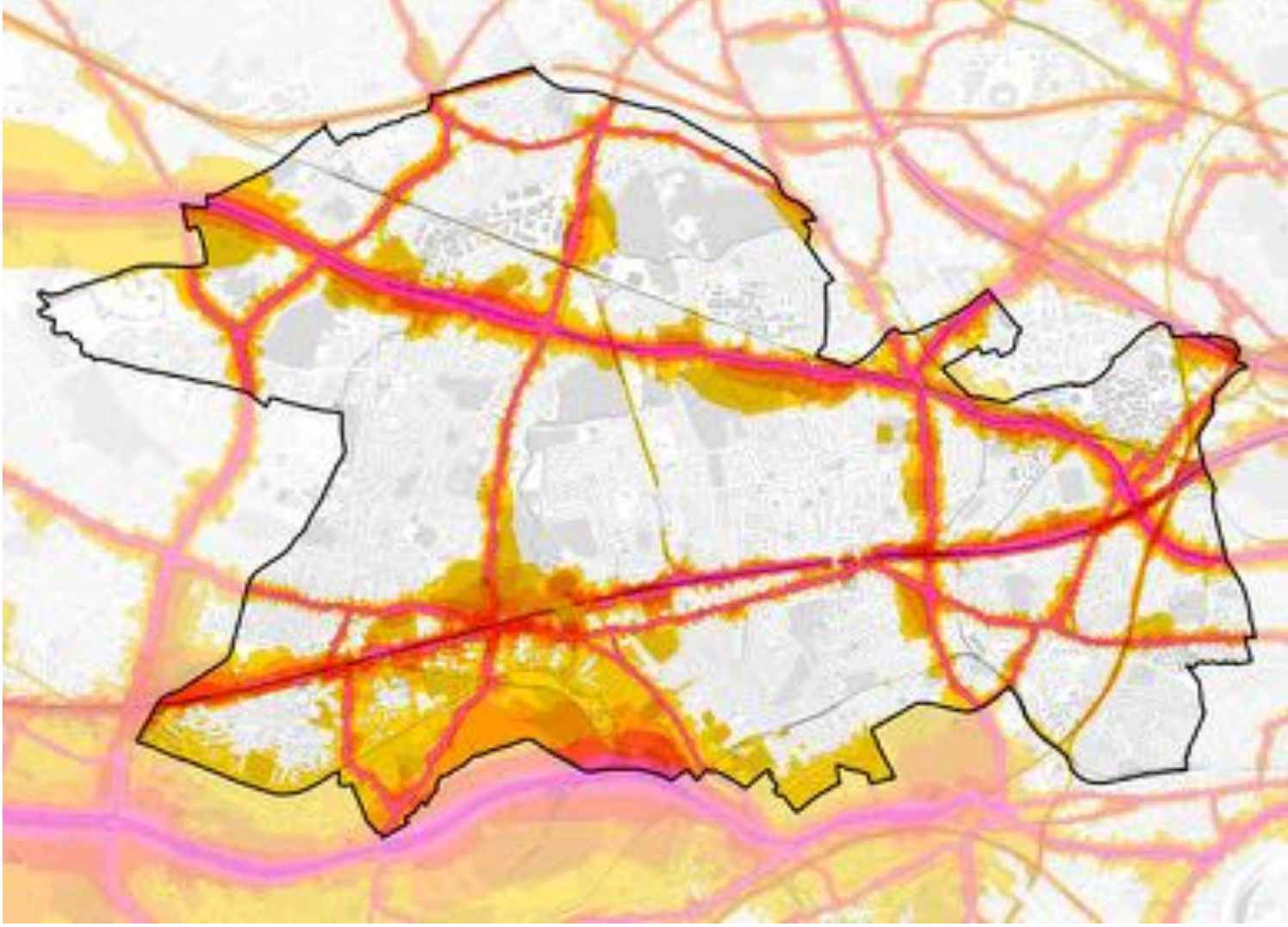
The draft London Plan makes it clear that air quality and noise pollution should be taken into account when undertaking character studies, using mapping to understand the areas of particular stress. Air quality and noise pollution have a direct correlation to public health and the everyday experience of people living, working, playing and spending time in Ealing.

Pollutants affecting air quality include road traffic emissions, residential and commercial gas use, industry, construction sites and emissions from outside London.

Indeed, road transport is estimated to be responsible for about 50% of total emissions of nitrogen oxides, as well as being the most common source of noise pollution in cities. Air quality and noise pollution levels therefore tend to be highest close to busy roads and in large urban areas.

The plan above illustrates annual nitrogen dioxide levels from 2013 and it is evident that the most polluted areas follow the road network. The length of the A40 is particularly bad, with pinch points noticeable at the confluence of major road and rail routes e.g. Hanger Lane and Acton Main Line stations.

Northala Fields is a large green space that acts as one of Ealing's 'green lungs', providing access to open space for recreation and good air quality.



NOISE POLLUTION

The plan opposite uses road (2017) and rail (2012) noise sources to measure the pollution, based on DEFRA data. Similarly, noise pollution is reflected in the movement network across the borough. It should be noted that strategic noise mapping does not reflect all road and rail routes, with this data capturing major roads with more than 3,000,000 vehicle passages per year, and for major railways with more than 30,000 train movements per year.

This mapping can be used to understand where specific measures can be introduced to address high levels of air and noise pollution, such as Air Quality Focus Areas and Low Emissions Neighbourhoods.

Area based guidance can be used to place specific priority on the need of developments to minimise exposure to and mitigate the impacts of poor air quality, particularly in areas used by large numbers of people including older people and children.

Policies aimed at boosting active travel and public transport use can also reduce the number of private vehicular movements and improve health and well-being. For example, enhanced walking and cycling routes; and identifying priority areas for small and pocket parks.

Goshawk Court, Subury Hill is a recent example of residential intensification that abuts railway lines and will have had to incorporate noise mitigation measures.

Brentvale Avenue, Hanwell

Wells House Road, Park Royal

Waldegrave Road, North Ealing

Western Avenue

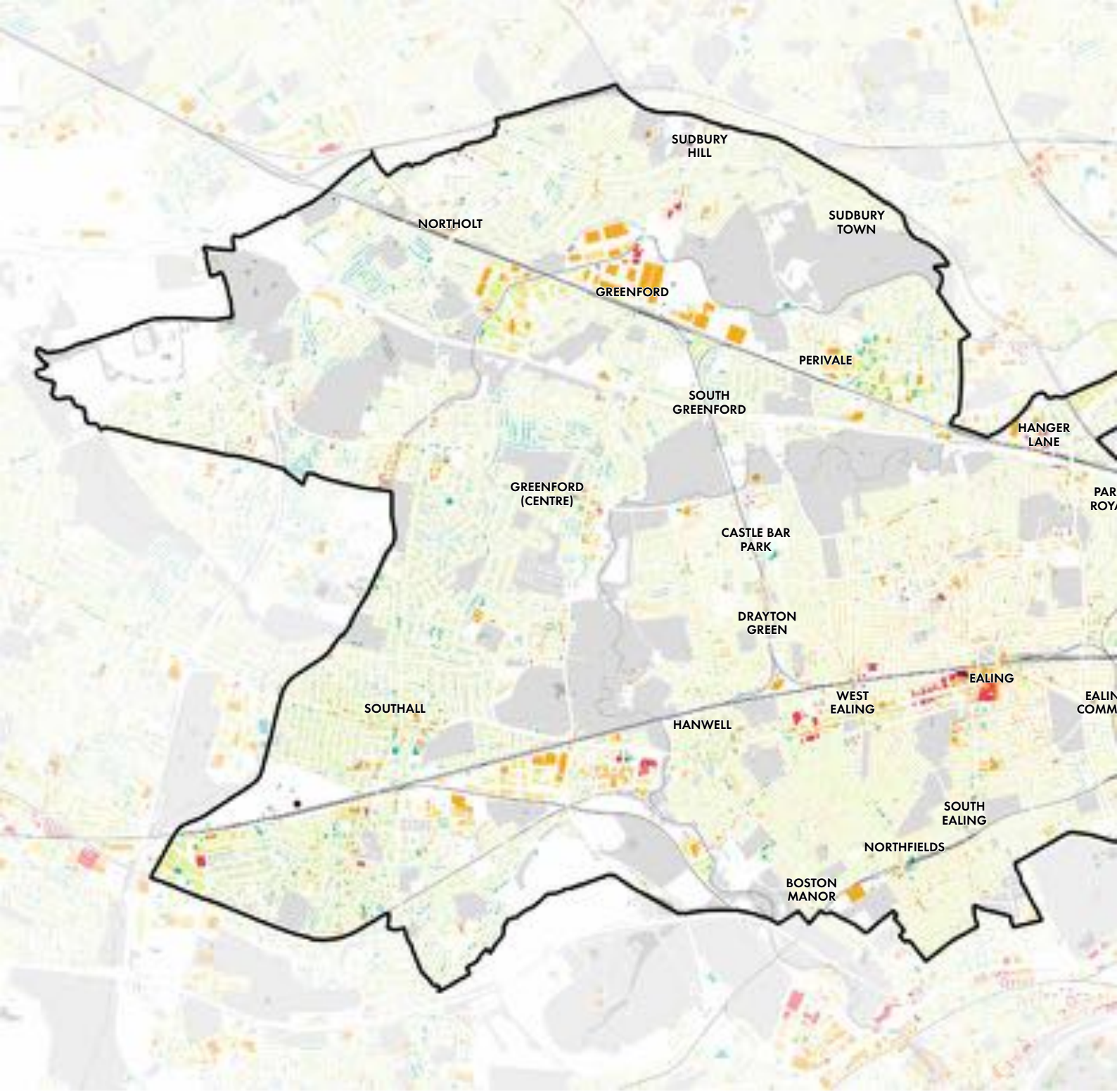
DISLOCATED BY INFRASTRUCTURE

Ealing is traversed by heavy road and rail infrastructure, radial routes that lead into and out of inner London. In some cases their paths converge and cross, which can result in constrained plots of land dislocated from their immediate setting. Where homes are found on these plots, neighbourhoods are isolated and suffer from severance with extremely poor walking and cycling connections to shops, services and amenities. Moreover, these plots will suffer from particularly high levels of noise pollution and poor air quality.

In some cases these neighbourhoods are a result of infrastructure retrospectively piercing through established communities, such as Wells House Road in the east of the borough. Conversely, plots of land leftover from this infrastructure have been developed as neighbourhoods as the need for housing in London increases, as seen with terraced development at Waldegrave Road and more recent, higher density blocks of flats opposite.

More recently, land adjacent to movement corridors has become an increasingly popular form of achieving high density residential intensification. Blocks of flats along Western Avenue have intensified land previously cleared for highway widening. This form of development provides the opportunity to contribute to transforming the character of busy roads when delivered in coordination with public realm, landscape and active travel improvements.

Strategic planning and masterplanning of these sites and their hinterlands can help overcome the impacts of dislocation from heavy infrastructure. Improving connections to the broader fabric of a place and introducing a robust street network and hierarchy of spaces will enhance the experience of people living there by making it easier to access services such as open green spaces, schools and shops.



Tall buildings are typically an urban condition and are therefore generally found across Ealing's network of town centres, with clusters notably prominent at Ealing and West Ealing. Historically these areas have undergone waves of intensification and are broadly suitable for higher average heights and overall densities, due to their transport accessibility and the large catchment of communities their shops and services serve.

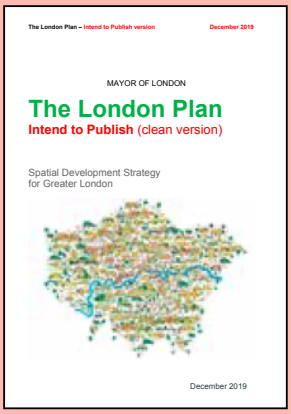
In many cases historic centres are also home to heritage assets, which require an explicit and excellent design response in order to preserve their setting. Recent development of Dickens Yard, is the tallest building in Ealing town centre, with its tallest point reaching 15 levels. The podium approach to the site ensures a good quality street-level environment suitable for its town centre location, as well as providing communal amenity space for residents. Its approach to scale and massing directly responds to the Grade II* Listed Christ the Saviour Parish Church, as well as enhancing its setting by framing views towards it.

Taller buildings are increasingly being consented in designated Opportunity Areas undergoing significant transformation, such as Old Oak and Park Royal and Southall. North Acton station falls within the former and is an area where average heights have dramatically changed in the past 10 years, having been identified as suitable for taller buildings in the Old Oak and Park Royal Opportunity Area Planning Framework (2015).

BUILDING HEIGHTS

The area around North Acton station has seen a significant amount of development over the past decade, with a cluster of tall buildings now established. Existing heights in excess of 20 levels with further taller buildings in the development pipeline.

Draft London Plan Chapter 3: Design Policies D9



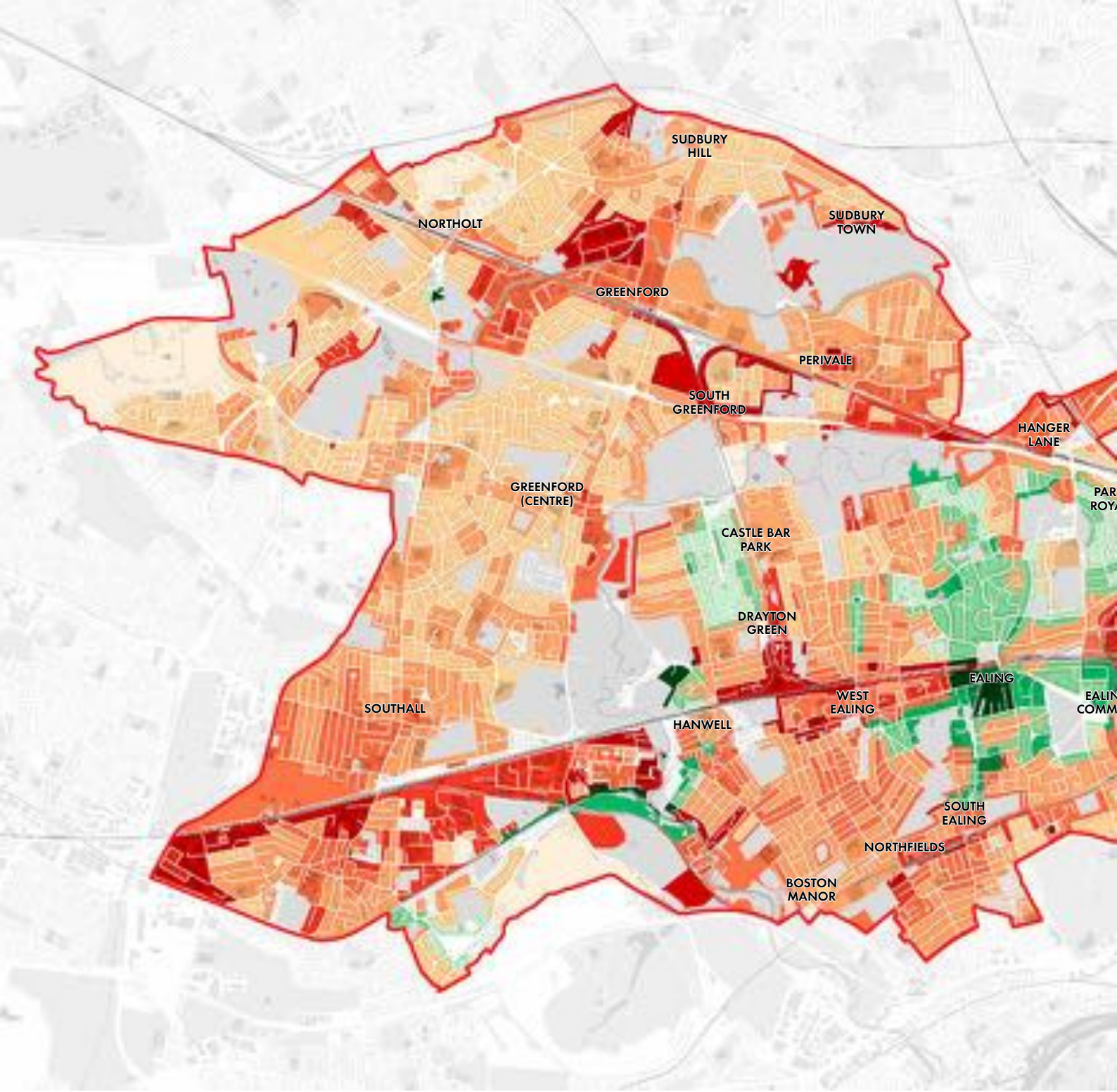
DEFINE
what tall is in each character area

IDENTIFY
areas where tall buildings may be appropriate

ASSESS
cumulative potential impacts

CONTRIBUTE
to the existing or evolving character of an area

MAXIMUM
heights should be defined by character area



Floor area ratio (FAR) is the ratio of a building's total floor area (gross floor area) to the size of the piece of land upon which it is built. This is a useful way to measure the relationship between building heights, building coverage, the efficiency of the plots in which they sit and the physical density it results in.

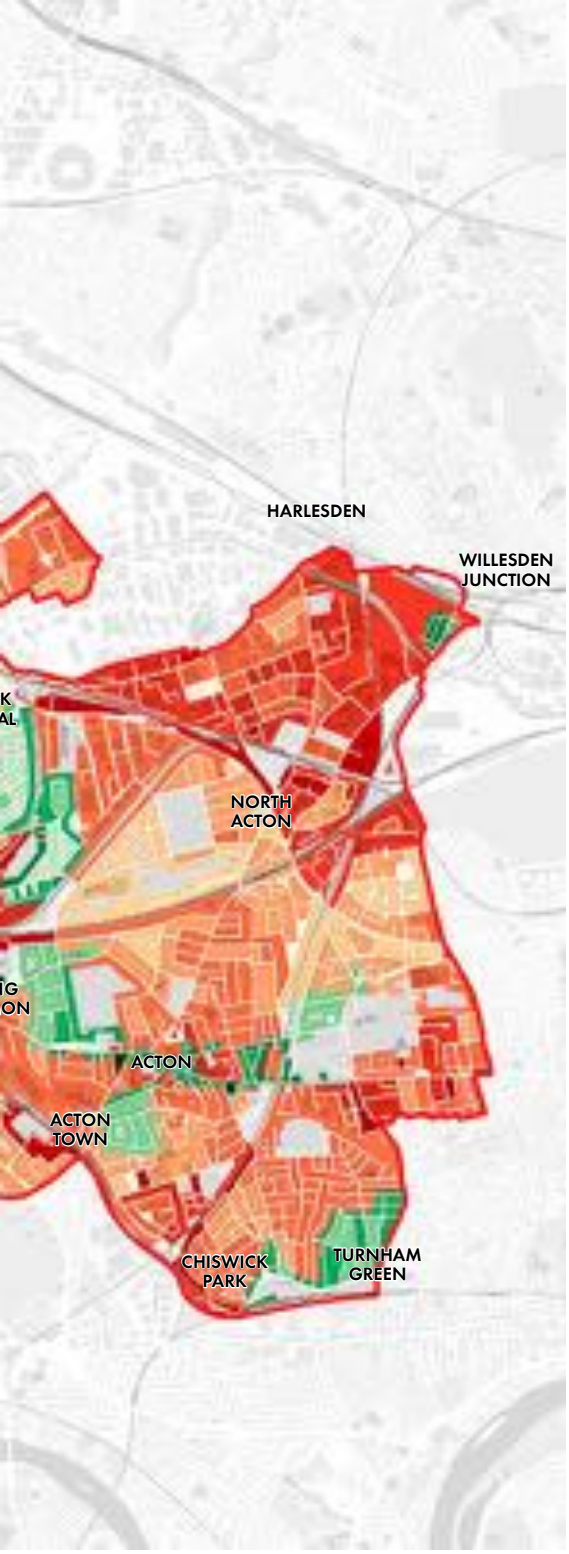
The plan above illustrates FAR across the borough of Ealing, with town centres having a higher average density due to taller building heights and how intensely plots are used e.g. Ealing town centre and Acton town centre.

That said, higher FAR scores can still be attained with modest building heights through expansive building coverage of a plot, commonly associated with warehouses and industrial sheds, as seen at Old Oak and Park Royal.

A separate but comparative colour grade has been used to illustrate the FAR within Conservation Areas, dispelling the myth that they are generally lower density.

High densities can be seen in parts of Hanger Hill, Haven Green and Ealing Green residential areas that fall outside town centres. Studies can be undertaken to understand how they are intensely using land and cues taken to inform new development through a character-led approach, without resulting in pastiche architecture.

FLOOR AREA RATIO



The grid images illustrates the range of FAR densities across the borough and how efficiently different morphologies use space. Churchfield Road is relatively dense and shows how centres usually have a structure that can be densified over time, even within a Conservation Area. The relative low density of Copley Close demonstrates a typical low density typology of 20th century residential with significant volume of land use as car parking courts.

Copley Close, 0.70 FAR

St. Mark's Road, 0.79 FAR

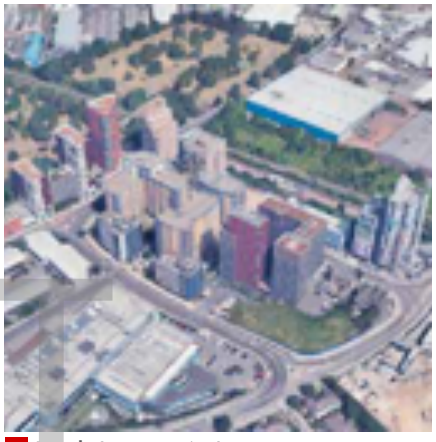
Links Road, 2.03 FAR

Boileau Road, 2.82 FAR

Churchfield Road, 3.37 FAR

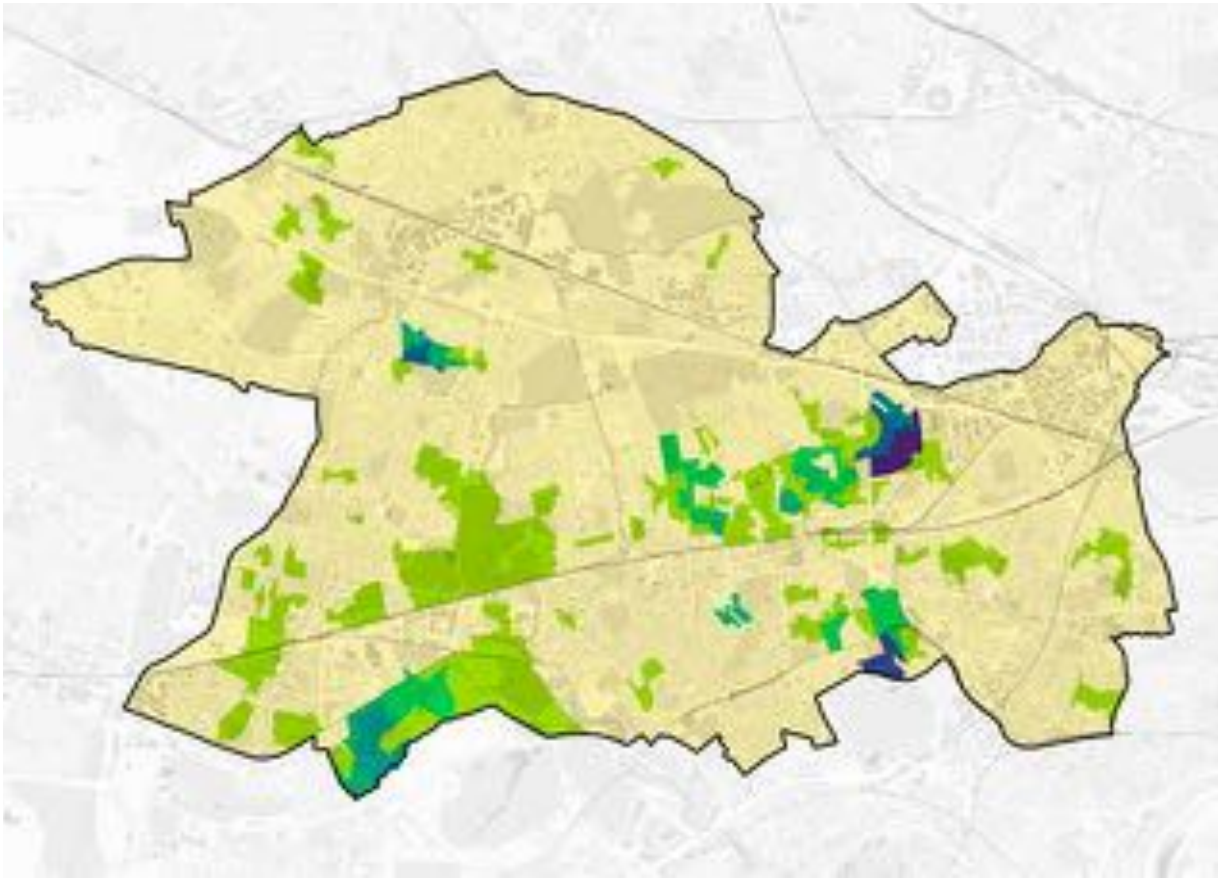
Acton Gardens, 3.75 FAR

Gordon Road, 4.42 FAR



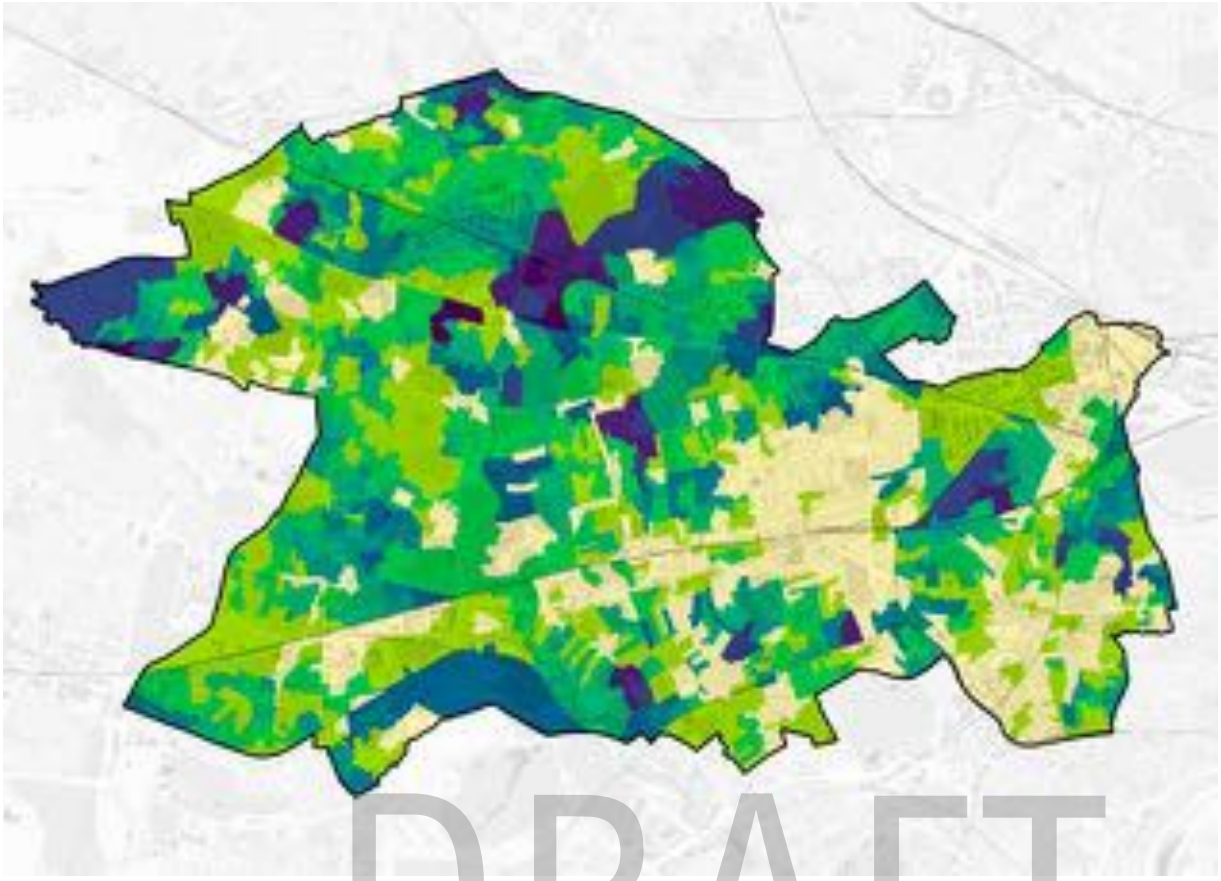
North Acton, 5.16 FAR

HOUSING TYPES



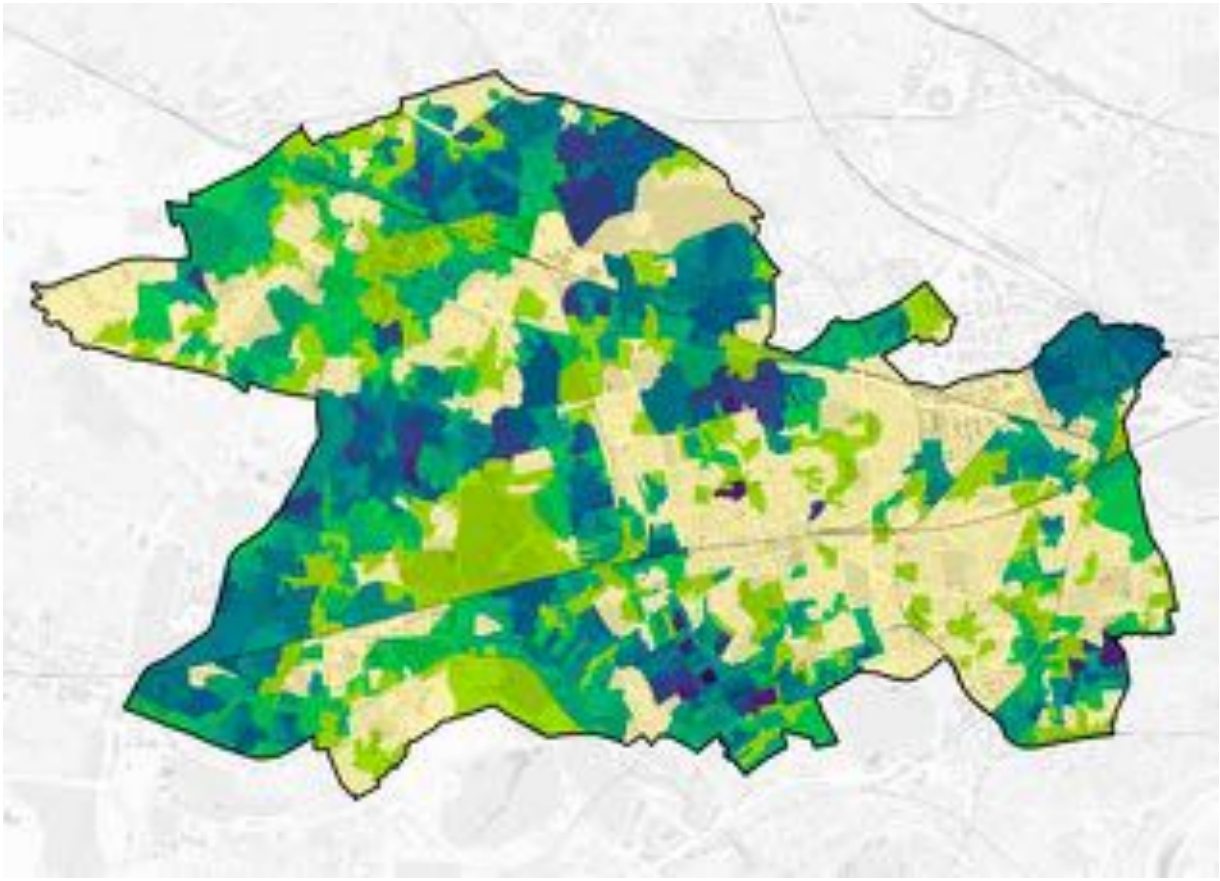
Detached housing

The greatest proportion of detached houses can be seen in the suburban areas of Hanger Hill, North Ealing, Haven Green and the area between Ealing Common and South Acton.



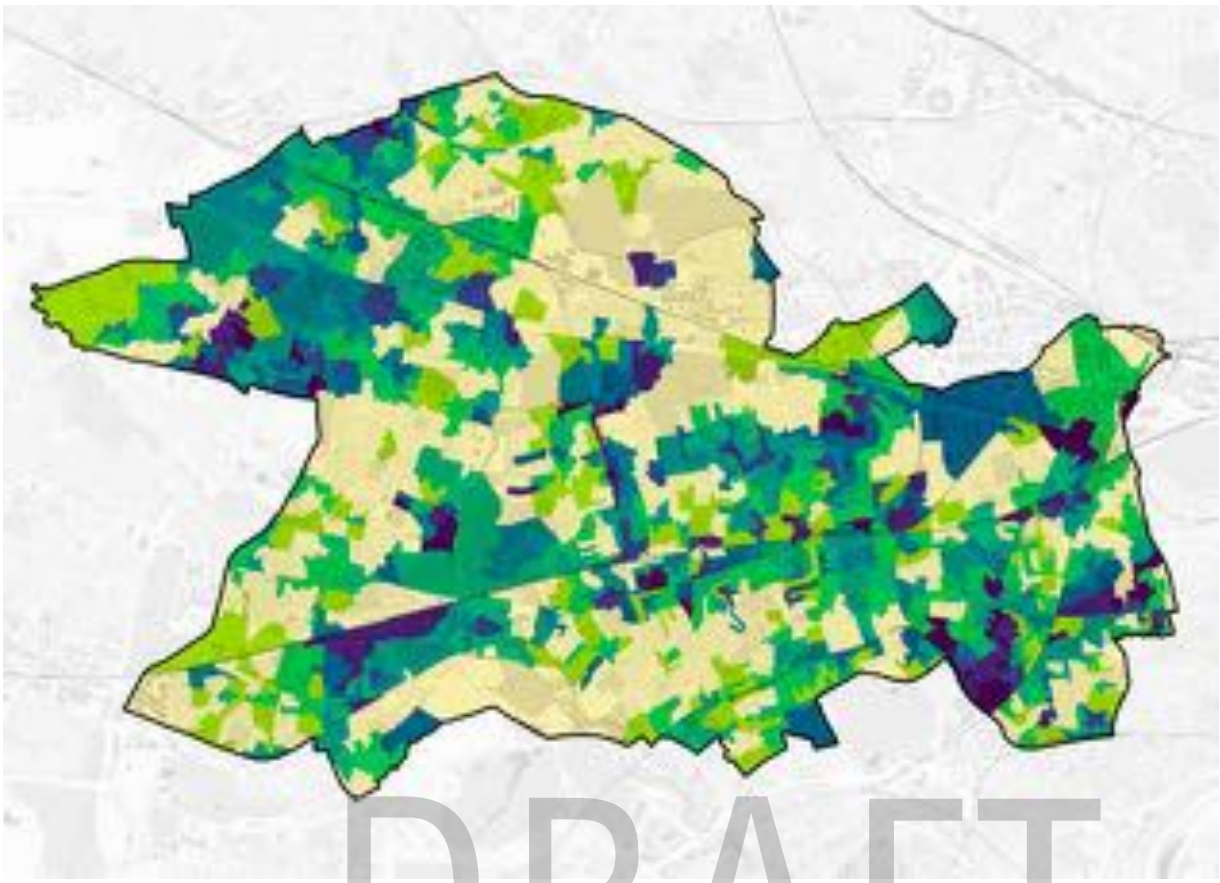
Semi-detached housing

Semi-detached housing is relatively evenly distributed across the borough, albeit noticeably absent from Hanger Hill, Montpelier and the areas north of Ealing Broadway. The greatest concentrations can be found in West Acton and east of Greenford station.



Terraced housing is commonly found in greatest concentrations around Sudbury Hill and the west of the borough between Greenford and Southall. Historically associated with Victorian industrialisation, they have long, narrow plots and are part of a well defined street network.

Terraced housing



Blocks of flats and tenement housing are typical of 20th and 21st century housing and can be stacked They are typically found clustered in areas with high public transport accessibility, including stations like North Acton and town centres.

Purpose-built block of flats or tenement housing

HOUSING TYPES


Cottage estate semi-detached


1950s commercial terrace


Free form slab block


Semi-detached town houses


Free form slab block, 1970s


Garden suburb corner terrace


Semi-detached maisonette side-steps


Mansion block, 1930s


Victorian terrace


Suburban villa


Modern town houses


Suburban semi-detached, 1930s

Modern urban perimeter block

Residential perimeter block

Modern block of flats

Edwardian commercial terrace

Modern block of flats

Modern town houses

Industrial shed

Victorian terrace

Modern residential tower

Residential podium block

Industrial warehouse

DRAFT

6 FUNCTIONAL CHARACTERISTICS

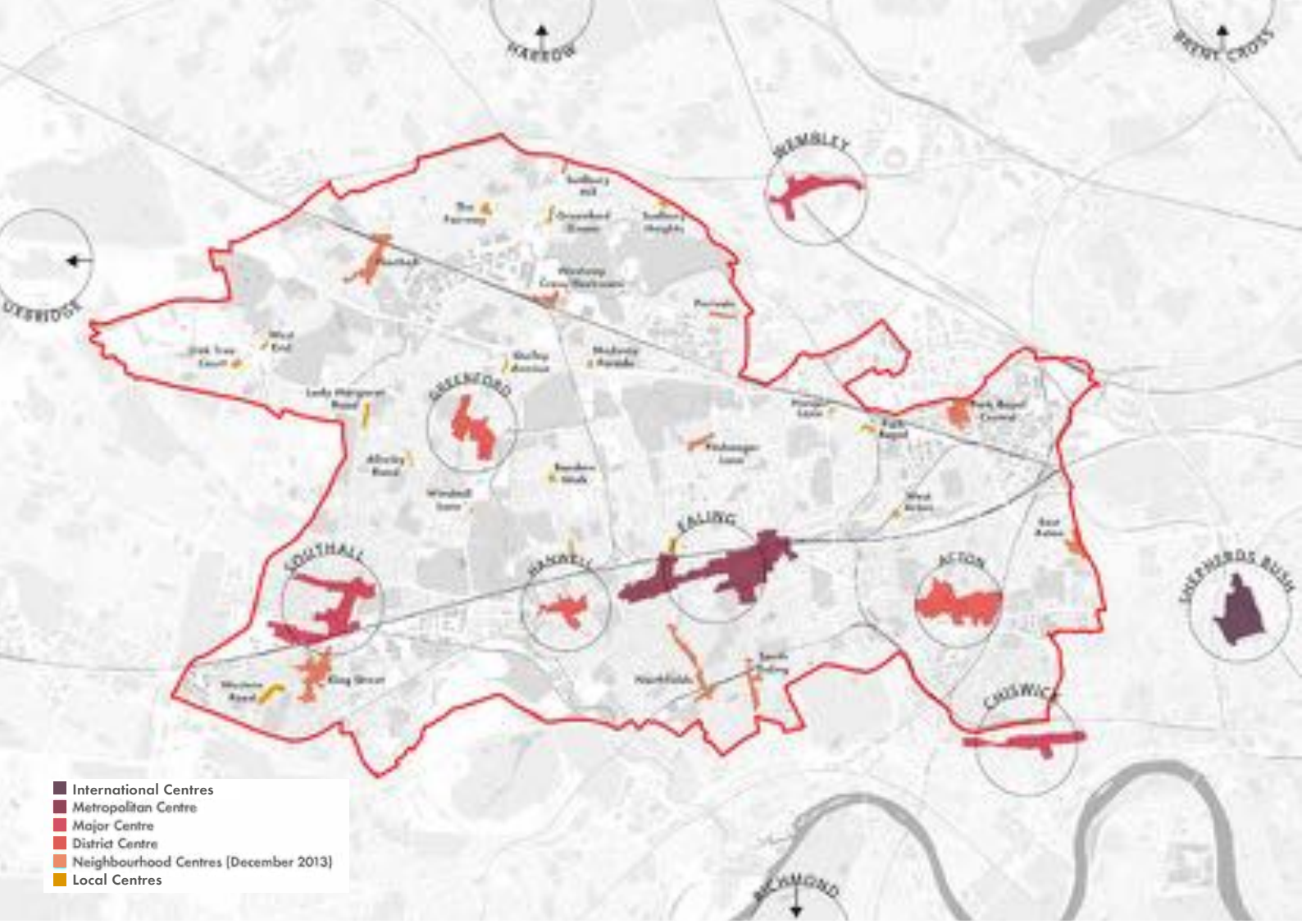
The functional characteristics of Ealing and the relationship between infrastructure, the built form, open space and the way we live and work is important to capture. Moreover, planning policy is a powerful driver of change that regulates land uses and seeks to maximise the potential of urban land to accommodate homes and jobs. Some of Ealing's functional characteristics include:

- A network and hierarchy of centres that are linear in their structure, with a number of smaller local parades that tend to be largely single sided and, therefore, reasonably long.
- The most common land uses by surface area are residential neighbourhoods (56%); leisure and open spaces (20%) including large swathes like the River Brent Valley; and clusters of industrial land (10%) that are contiguous with railway lines.
- Pockets of areas highly accessible by public transport including Ealing, West Ealing, Acton, North Acton, Southall and Greenford where recent growth has been concentrated.
- Social infrastructure that is concentrated around local centres and green infrastructure, including schools, places of worship, allotments and sports facilities.

Single sided, linear centre at Northolt

Ridding Lane open space, Sudbury Hill

Haven Green, Ealing



Ealing's network of centres

Ealing borough has a clear hierarchy of commercial centres, with a greater number of substantial centres in the south, while the north west of the borough is served by a series of neighbourhood and local centres.

Ealing Town Centre is the borough's commercial heart and only Metropolitan Centre. Southall is classed as a Major Centre, and Acton, Hanwell and Greenford as District Centres, though vary in both character and offer. The borough has nine neighbourhood centres and a large number of local centres/parades.

People do not lead their lives by administrative boundaries and a number of centres beyond the borough serve Ealing's community. Shepherds Bush, Chiswick and Richmond to the south east; Wembley, Harrow and Brent Cross to the north and Uxbridge to the west.

This suggests that in order to support new homes in the north west of the borough, a strengthened or new District Centre may be needed.

London Plan definition of centre roles:

METROPOLITAN
Serving the sub-region and other parts of London with high-order comparison retail with department store, shopping mall, civic buildings, large offices and culture, leisure and entertainment.

MAJOR
Serving one or more boroughs with comparison and convenience retail, offices, civic functions, services and culture, leisure and entertainment

DISTRICT
Serving a number of local communities with convenience retail, small scale comparison retail, local offices, services and leisure/entertainment

NEIGHBOURHOOD
Serving the surrounding neighbourhood with local parades, essential convenience retail and services.

The New London Plan identifies high housing growth potential for Ealing, Southall, Acton, Hanwell, Greenford and commercial growth potential in Ealing and Southall.

Bilton Road - 440m

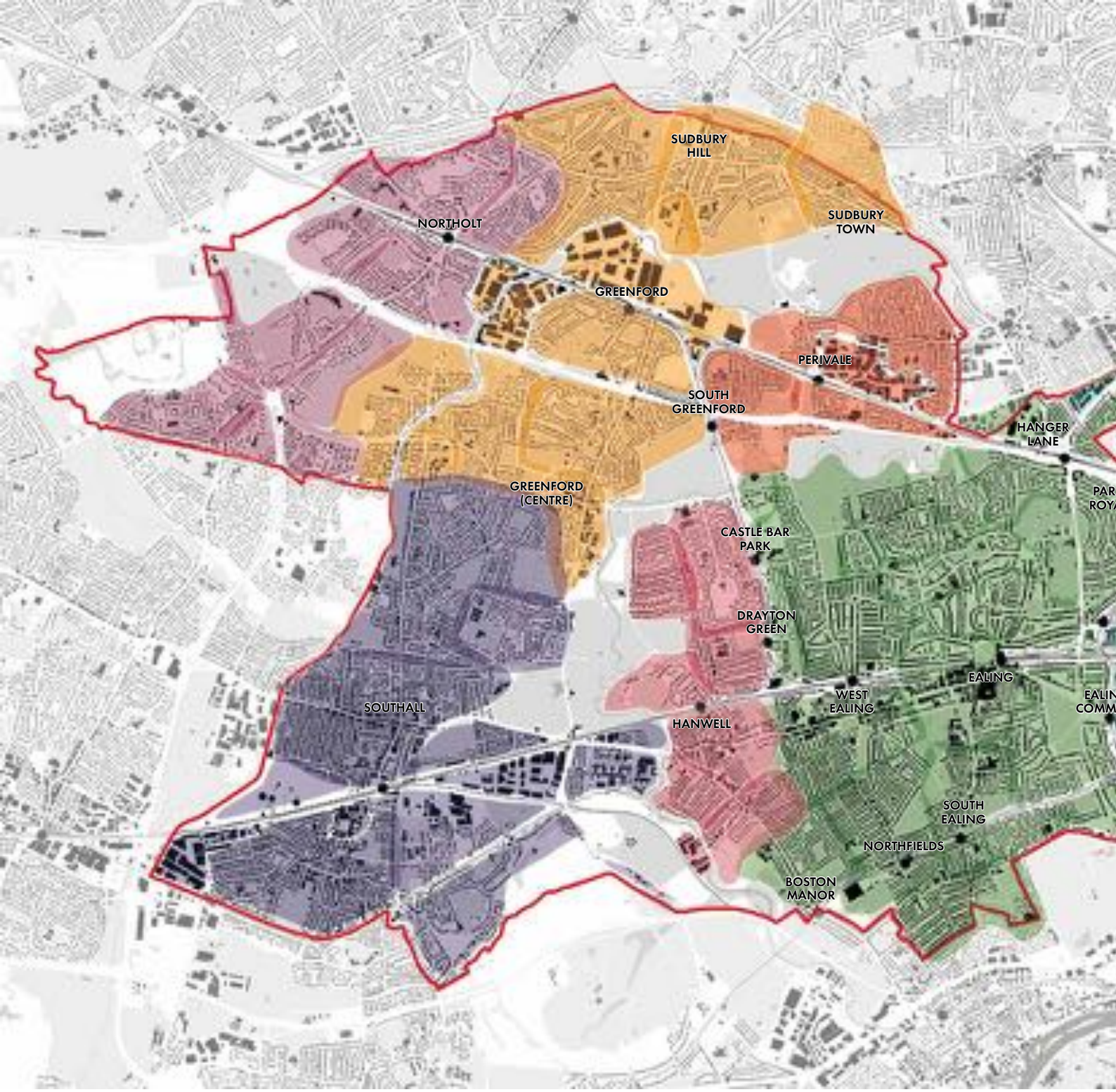
Northfield Avenue, 750m

The borough's local parades

Ealing is characterised by a number of extended parades of local and independent shops and services serving their local communities. These form an important part of the borough's character and are likely accessed on foot or potentially by bike.

Two examples shown above are Bilton Road in Perviale and Northfield Avenue, in the south of the borough, both of which are classed as Neighbourhood Centres. Inthe case of Bilton Road, the length is in part due to the fact that shops occupy one side of the street rather than both.

Linear parade, Pitshanger Lane Neighbourhood Centre



Ealing is characterised by seven broad areas of Acton, Ealing, Hanwell, Southall, Northolt, Greenford, and Perivale. Each have distinctive character and a number of neighbourhoods within them that overlap at points, as one residential area blends into another, and sit separately from one another at other points, where infrastructure or distinct housing types divide them.

Sitting strategically to the west of central London, Ealing is traversed by a number of radial routes including the A40, the Central Line and Great Western rail line and also by canals and waterways including the River Brent and Grand Union Canal. These all separate neighbourhoods at particular points in the borough, and can result in rather small and dislocated neighbourhoods at points.

The borough benefits from a significant amount of green space and at points, these parks act as a central focus and draw together multiple neighbourhoods such as at Rectory Park in Northolt and Lammas Park at Northfields. However, some of these green spaces are private land such as golf courses and these separate rather than unite neighbourhoods.

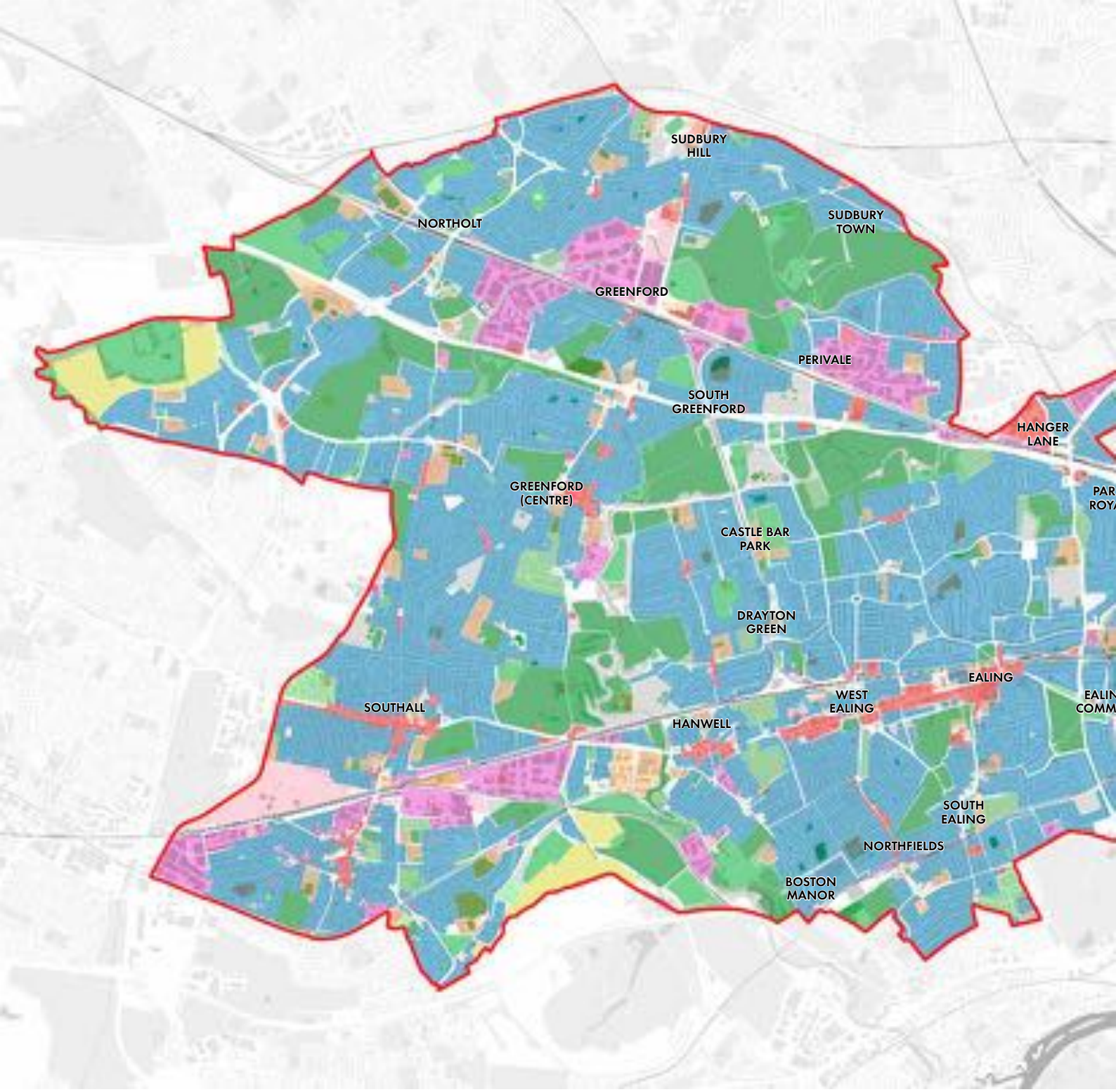
Of the borough areas, Ealing has the greatest continuity between its neighbourhoods in general. This is because it is dissected by the mainline railway only, and at Ealing town centre the two bridges and decking over the tracks overcomes this barrier.

EALING'S NEIGHBOURHOODS

Green and grey infrastructure can serve to both connect and act as barriers to neighbourhoods, as seen from the plans above. Railway lines acts as impermeable barriers, whilst large swathes of open space can act in the same way e.g. the River Brent Valley Park

However, it does contain some of the smallest neighbourhoods as roads and rail cross. Acton (particularly in the Park Royal area) also has a number of very small and dislocated neighbourhoods.

There may be opportunities through intensification and investment at key locations on some roads to overcome some of these neighbourhood separations and this will be considered as the study is progressed.



The above plan illustrates the spatial distribution and combination of land uses that underpin the London Borough of Ealing. This mosaic of uses provides a clear understanding of the prevailing uses, with residential, industrial, leisure and retail / commercial being the most common.

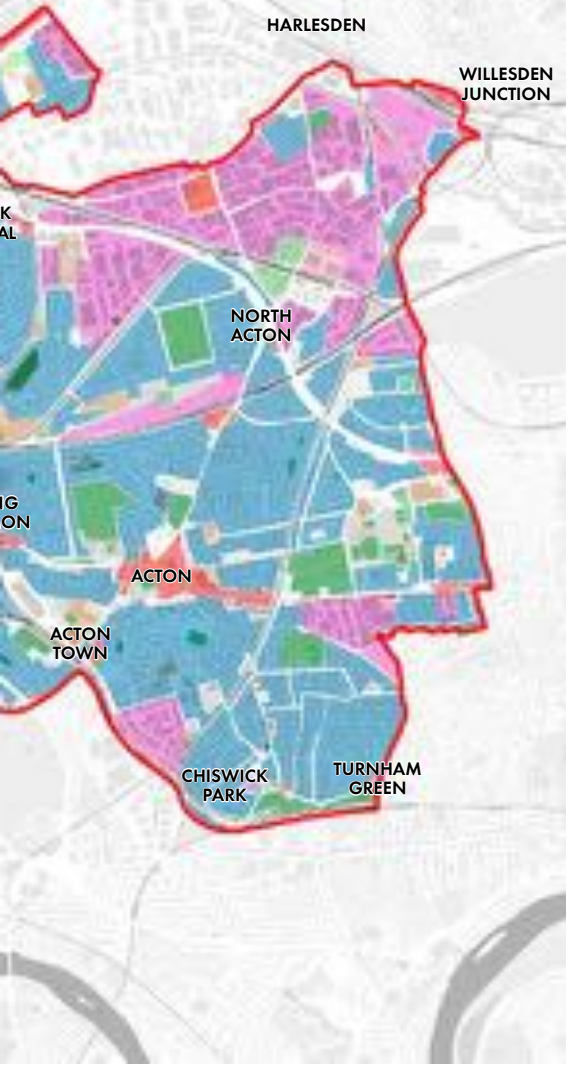
Residential neighbourhoods are the most dominant land use, making up 56% of surface area in the borough. In many cases it seems neighbourhoods are well integrated with and relate to local parks and green spaces, such as Ealing Common, North Acton Playing Fields and Hanger Hill Park. Whilst creating a strong identity in relation to the green space, this likely creates a blurred sense of place from one neighbourhood to another.

Industrial land is easily discerned as being contiguous to railway lines, forming industrial corridors along their path. This can be seen at locations including Old Oak and Park Royal, Perivale, Greenford and Southall. Many of these industrial sites will experience pressure for intensification over the coming years and the success of this will in part be judged by its edge condition and how it integrates with adjacent uses.

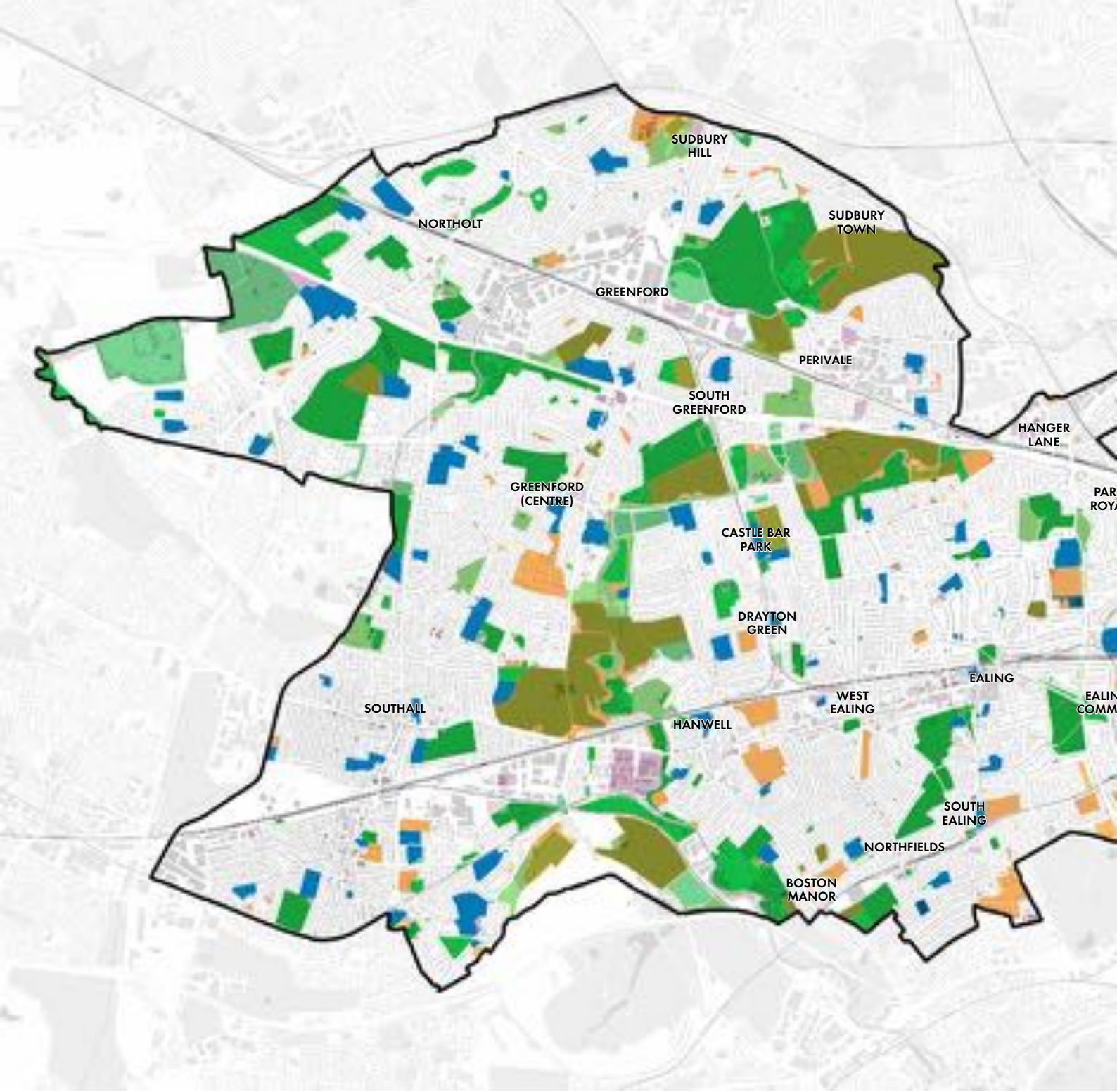
Centres are identifiable by a concentration of retail and commercial uses. Linear high streets are characteristics of Ealing, as seen at Ealing Broadway, West Ealing, Acton and Southall. This characteristic is also prevalent at a more local scale and provides scope for a range of intensification strategies, such as backland infill and upwards extensions to establish a consistent frontage and datum.

LAND USES

Residential, leisure and industrial uses are the three most common land uses in Ealing borough, accounting for over 86% of surface area.



Over half the London Borough of Ealing's land uses by surface area are in residential use. Leisure comprises 20% which includes parks and open green spaces, further illustrating Ealing's green character. The large swathes of industrial land contiguous with railway lines contribute 10%. Land use data is opensource, is not completely accurate and therefore represents an estimate coverage.



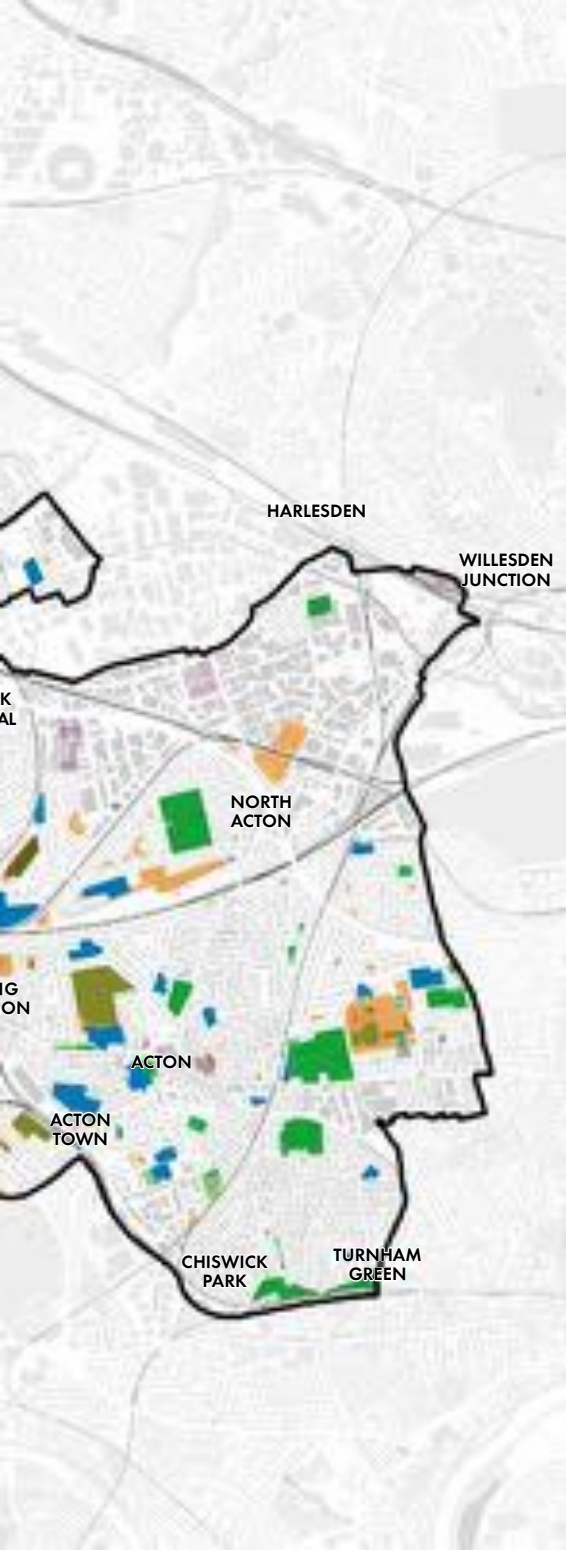
Social infrastructure is the key ingredient in placemaking and the social glue that binds communities. The plan above illustrates the spatial distribution of schools; community open spaces such as cemeteries and allotments; public open spaces; leisure sites including sports facilities; and amenity uses such as cafes, bars, banks and places of worship.

Access to this kind of infrastructure is essential to supporting healthy and well functioning places. Large regeneration schemes should make provision to social infrastructure, particularly in areas where a need is known and where increased residential populations will place strain on existing services.

Green infrastructure can be used to target the provision and clustering of new social infrastructure, enhancing the quality of an existing green space and introducing complementary uses such as community centres or shops.

New schemes including shops, bars, libraries, doctors surgeries etc. should make allowance for physical floorspace to be designed flexibly. Floor to ceiling heights, frontage, access and servicing should be designed to encourage robust spaces capable of adapting to alternative futures, particularly in emerging communities where need / appetite for certain services may take a while to establish.

SOCIAL INFRASTRUCTURE



International Presbyterian Church, West Ealing

Local parades, high streets and centres provide access to shops and services

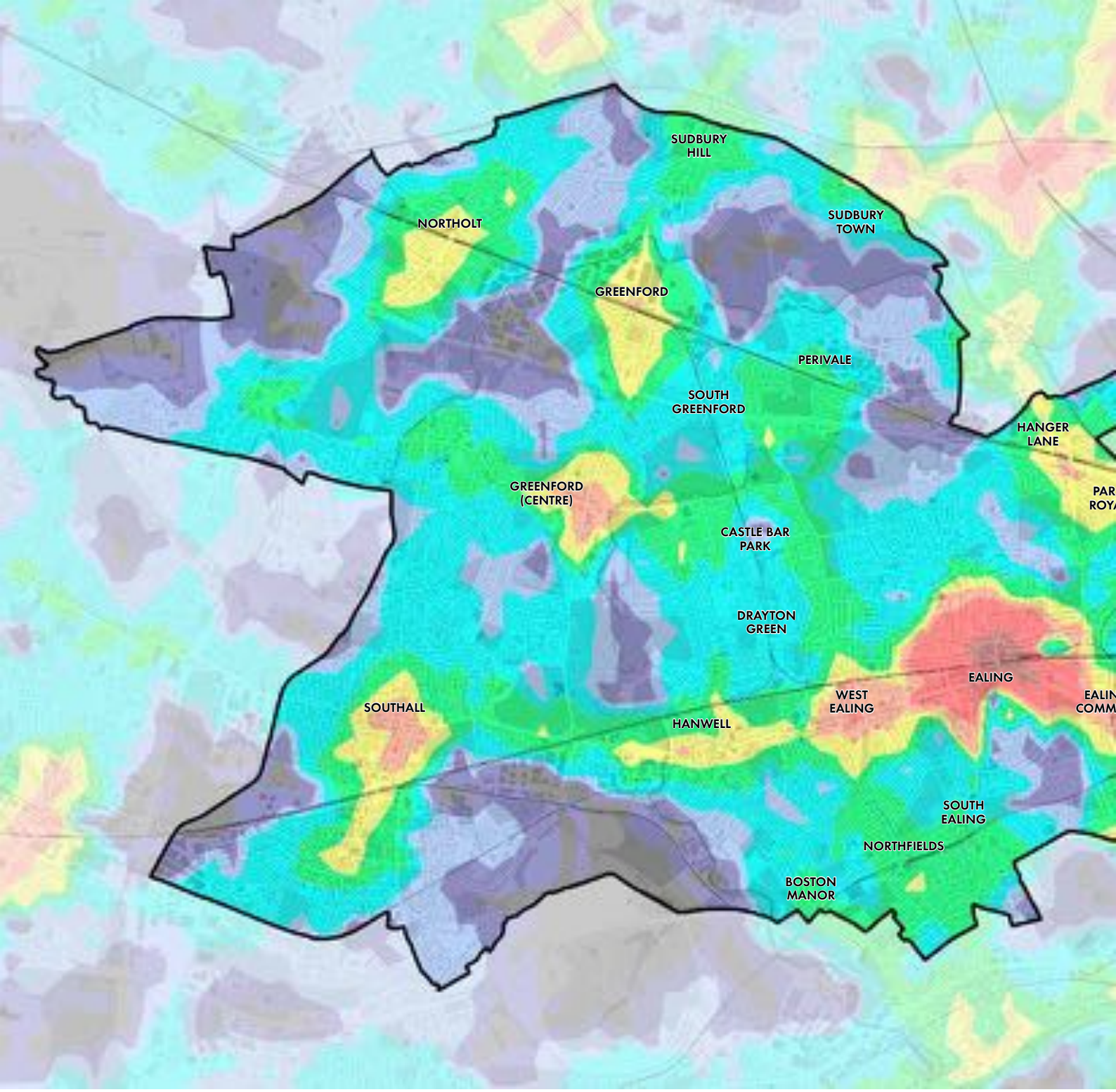
Access to schools and leisure facilities, Acton

Small parks and play facilities, Acton

Soul in the City community mural, West Ealing

Children's day nursery, Norwood Green

Westway retail park, Greenford



PTAL stands for Public Transport Access Level. It is a measure of connectivity by public transport, which has been used in various planning processes in London for many years. For any selected place, PTAL suggests how well the place is connected to public transport services. It does not cover trips by car.

PTAL across Ealing is a varied picture and emphasises how it can be understood as having the characteristics of both an inner and outer borough. A spine of accessibility is evident leading from West Ealing, to Ealing Broadway and south east towards Acton. Punctuated by high accessibility at town centres and stations, high PTAL is also clear at Southall and Greenford centres.

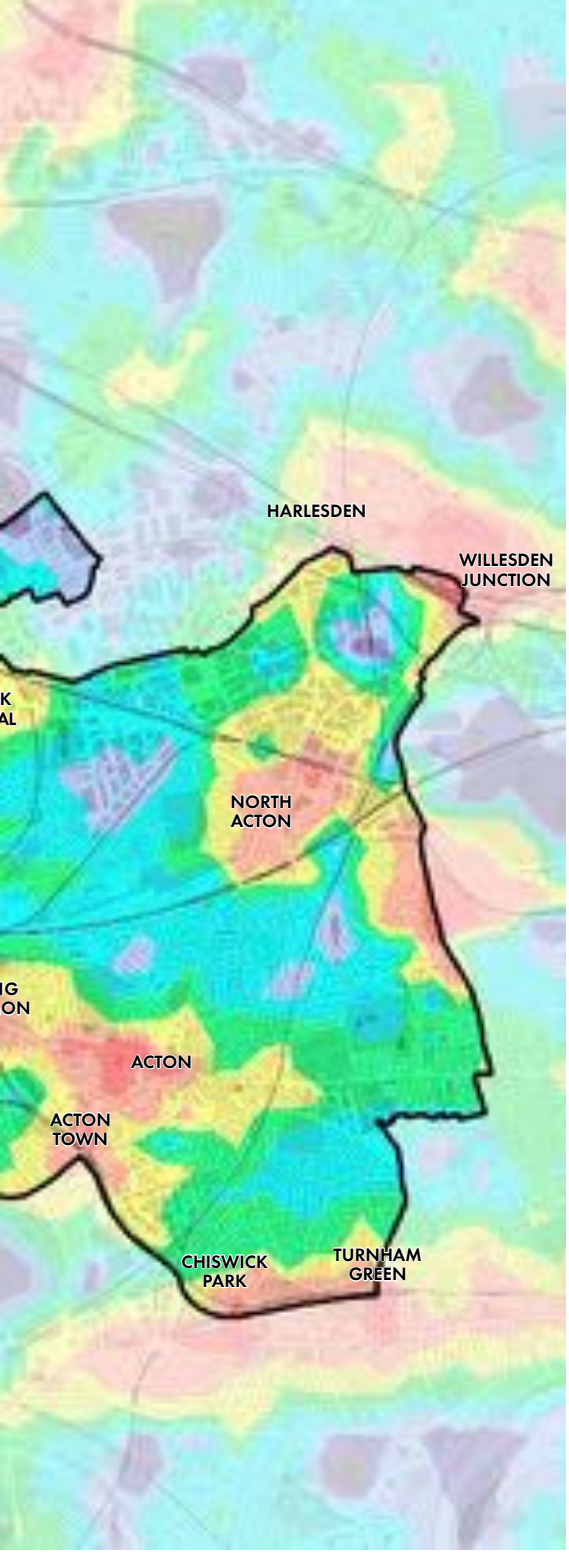
PTAL of 3 and above follows key bus routes between the borough's number of stations and town centres, though the connections across the network could be strengthened. The draft London Plan Policy H2 Small Sites is particularly concerned with sites of 0.25 ha and below that score a PTAL rating of 3 and above; or are 800 metres from a centre; or 800 metres from a station. This approach prioritises housing in accessible areas supported by services and amenities.

The PTAL score in locations such as Ealing Broadway, West Ealing, Hanwell and Southall will be set to increase and expand when the Elizabeth Line opens in 2021. Moreover, HS2 is due to stop at Old Oak Common which will improve PTAL in this area greatly.

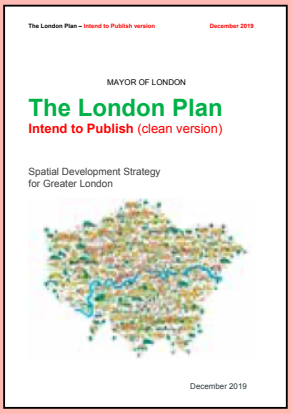
PTAL

Greenford Station provides access to National Rail and London Underground services

Ealing town centre has the highest PTAL score in the borough and is easily accessible by public transport including bus



Draft London Plan Chapter 4: Housing Policies H2



CRITERIA
of PTAL 3-6 or 800m from a station or 800m from a centre

0.25 ha
sized sites or below

DIVERSIFY
sources, locations, type and mix of housing supply

UNDERSTAND
existing and planned transport connectivity

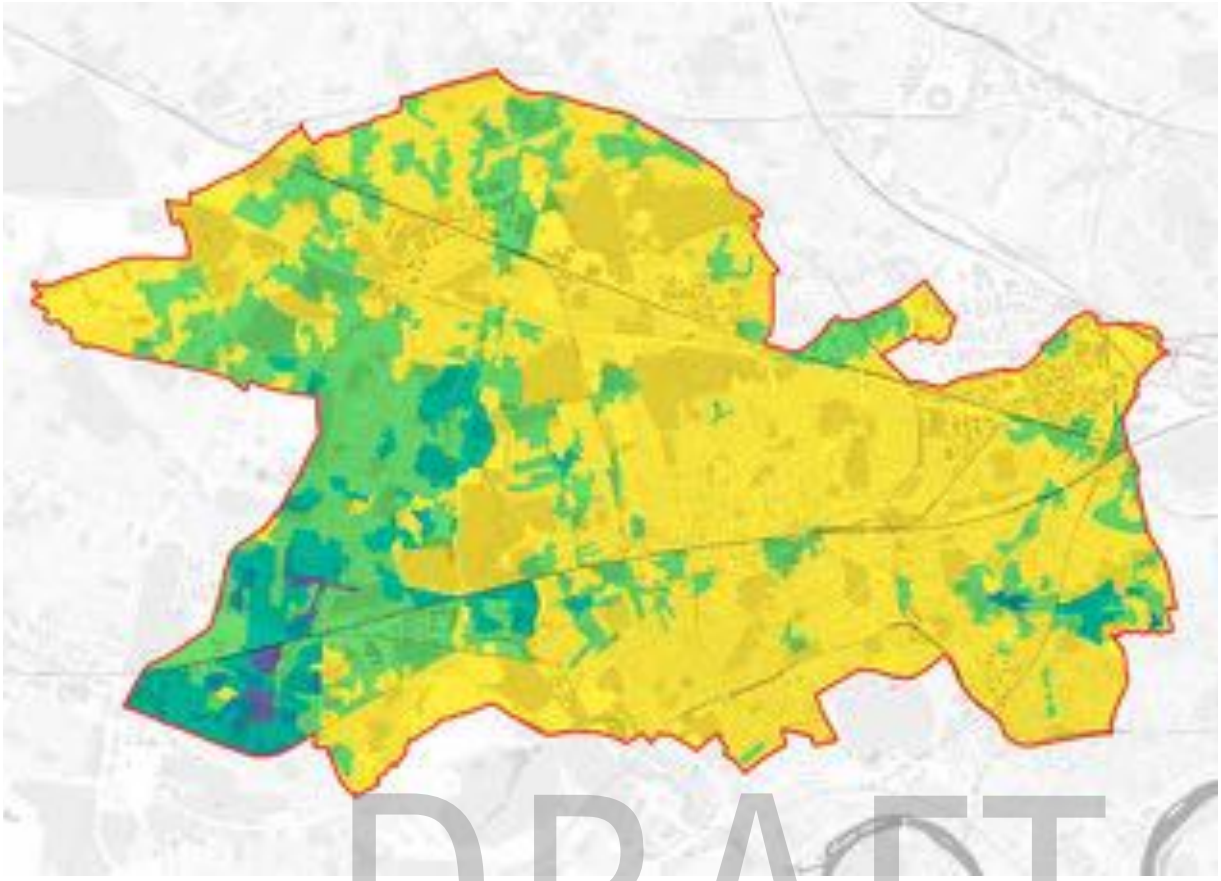
ALLOCATE
these sites for homes and list them on brownfield registers

4,240
Homes on small sites target (10 years)

METHOD OF TRAVEL TO WORK

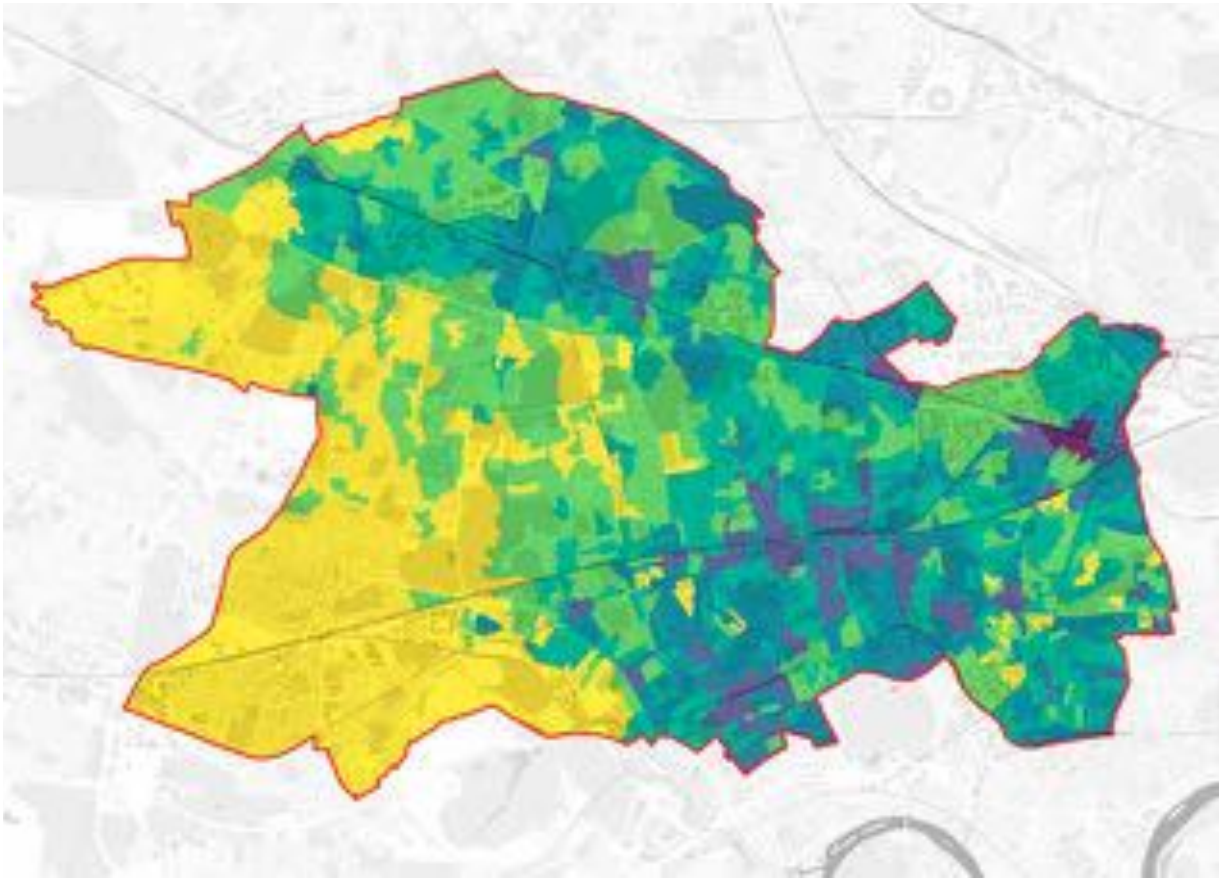
Private car use is a dominant mode of travel to work for many boroughs that straddle the line between inner and outer London. It can be observed that this mode is more common in the west and north of the borough, which is generally less accessible by public transport.

By car or van



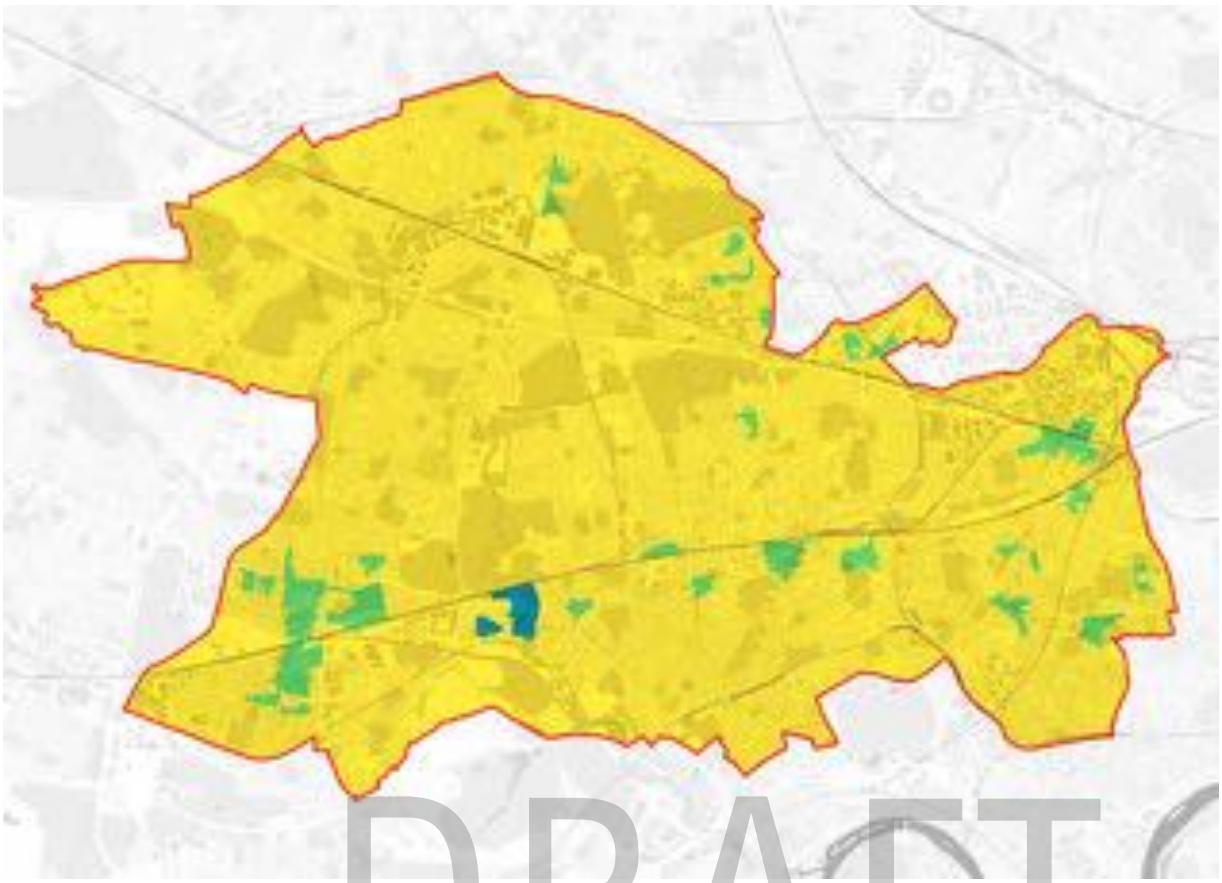
Bus travel is more popular in the west of the borough around Southall, Greenford and Northolt. It is relatively uncommon across the majority of the rest of the borough, with a cluster around Acton the exception.

By bus, minibus or coach



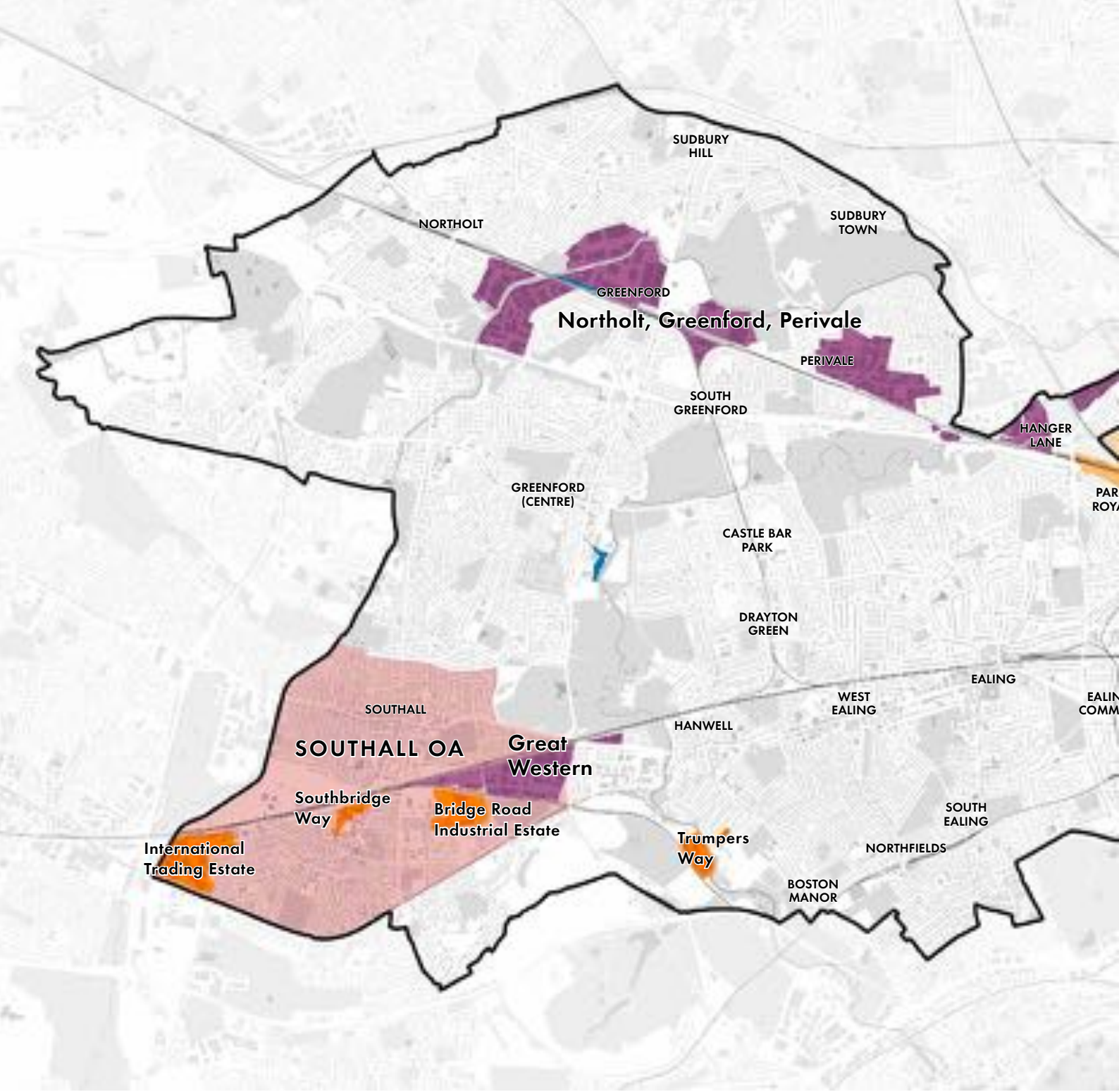
By underground, metro, light rail, tram

Large volumes of people travel by train and underground services and this is prominent across most of the central and eastern parts of the borough. The strongest concentration appears around Ealing town centre and North Acton, both served by underground lines. Greenford also has a high concentration, owing to its high PTAL score.



On foot

Walking to work is by far the least common mode of travel across the borough. Notable exceptions include Southall, suggesting high local employment rates. Similarly, Ealing Hospital appears to be a local employer in the Hanwell area.

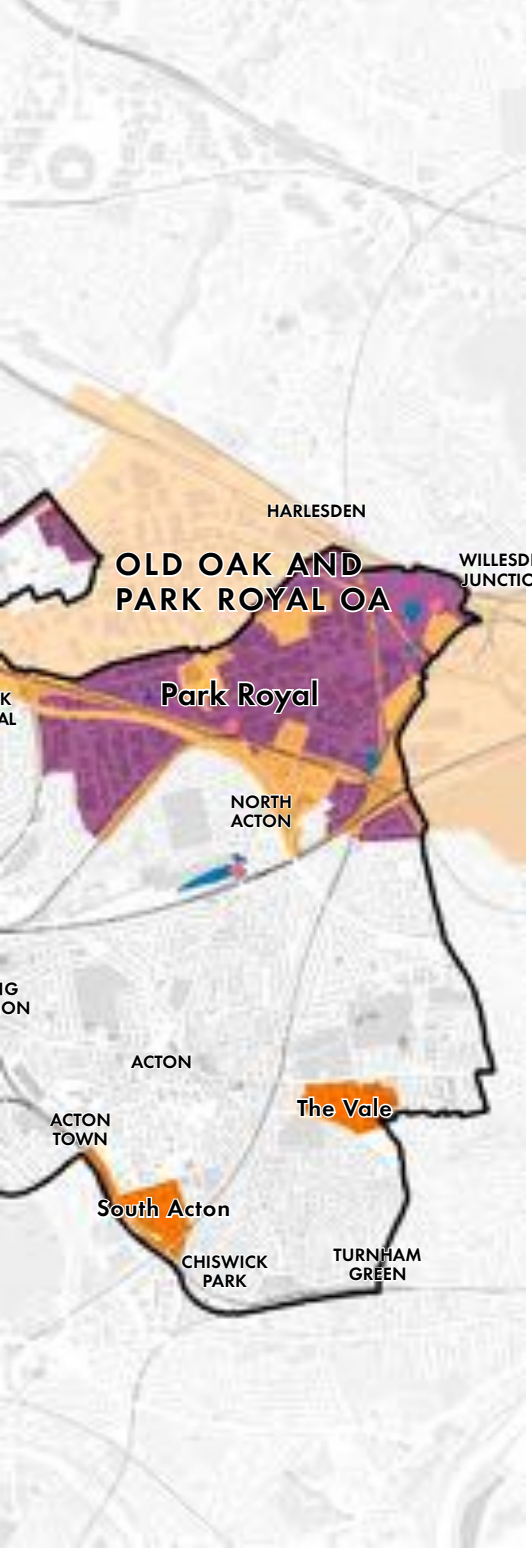


Ealing is home to a number of employment and industrial sites of strategic importance to the functioning of the borough, London as a whole and the broader south east region. Ealing has three principal clusters of Strategic Industrial Locations (SIL) including multiple sites falling under one designation. The clusters include Park Royal and Northolt, Greenford, Perivale, forming an industrial corridor along the railway lines running north west - south east across the northern part of the borough; and Great Western in the south west corner.

The borough's supply of strategic employment land is complemented by a number of Locally Significant Industrial Sites (LSIS) including The Vale, South Acton, Trumpers Way, Bridge Row Industrial Estate, Southbridge Way and International Trading Estate.

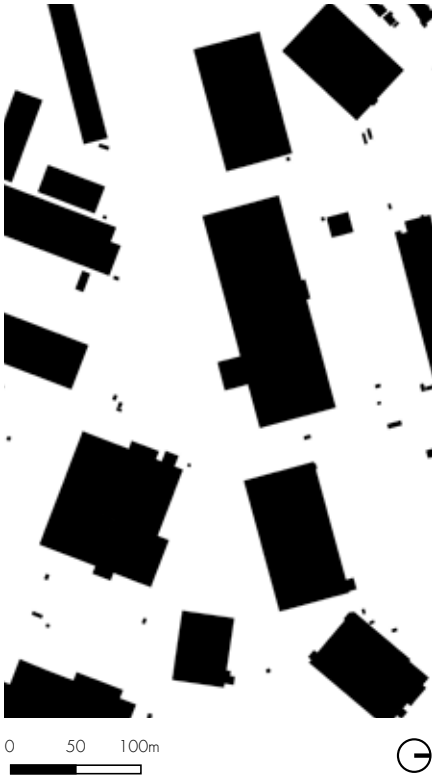
These smaller scale employment sites perform important economic functions and serve a more local catchment. Larger SIL sites are often characterised by modern, single storey warehouses and sheds, whilst smaller LSIS sites tend to be better integrated within the broader urban fabric and have retained more Victorian warehouses and factories of two to five storeys.

There has been a dramatic reduction of industrial land across London over the past decade, with large areas of land being released for housing and more intensive forms of commercial activity. The draft London Plan Policies E4, E5, E6 and E7 are concerned with the protection of SIL and LSIS and require no net-loss of industrial floorspace. Any release of industrial land from designated sites must be a result of managed intensification, co-location and substitution.



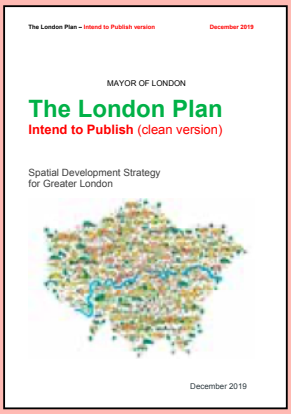
INDUSTRIAL LAND

Excerpt from Wadsworth Road, Perivale SIL. 19th century industrial fabric has a robust urban form and structure that is easily adapted for alternative uses. Its street network makes it easier to integrate with adjoining uses, particularly residential areas.



Excerpt from Auriol Drive, Greenford SIL. 20th century industrial fabric is characterised by a loose arrangement of large footprints, poorly defined boundaries and absence of a street hierarchy. It is more difficult to adapt for other uses and integrate with its hinterland.

Draft London Plan
Chapter 6: Economy
Policies E4, E5, E6, E7



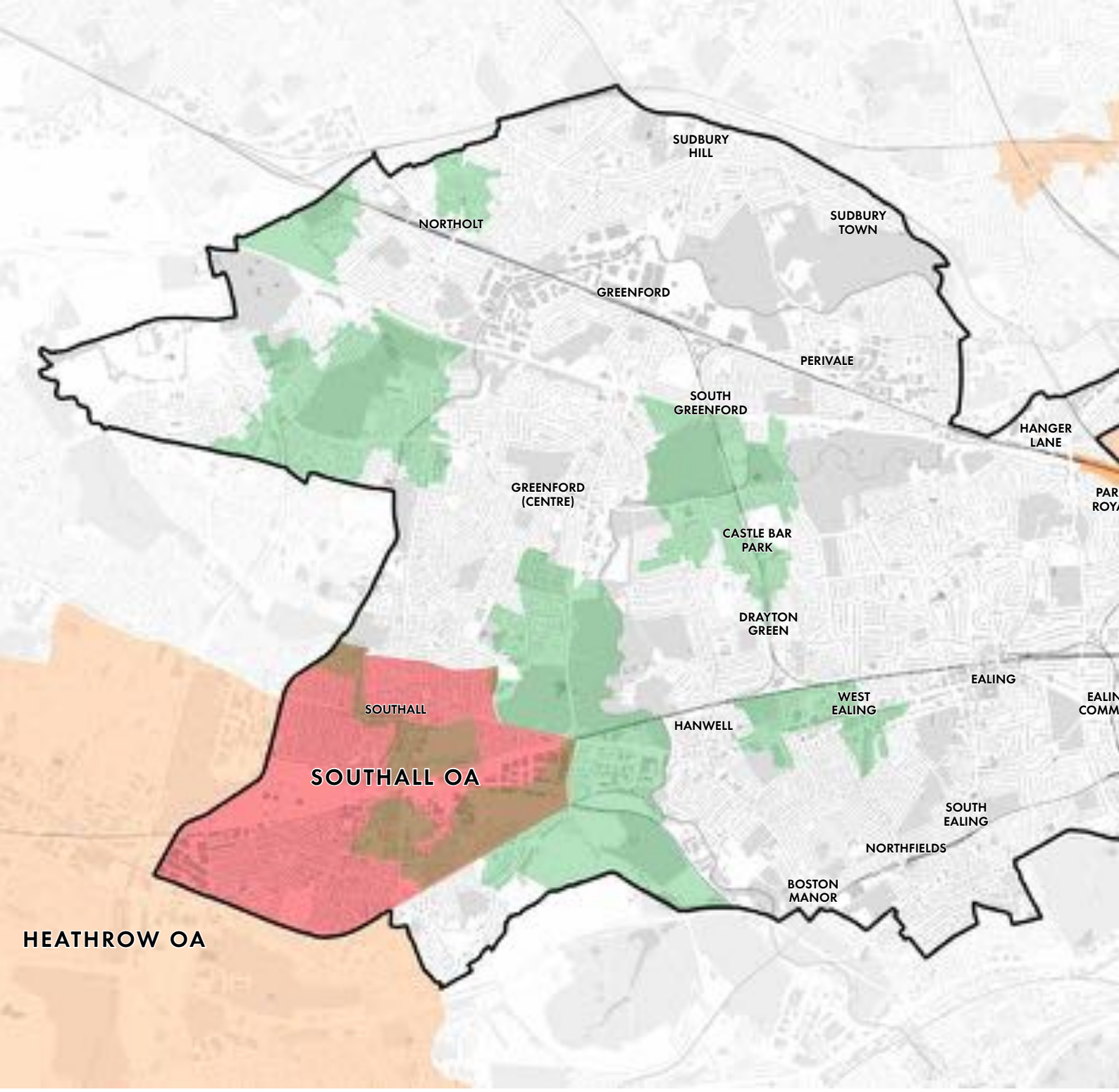
EFFICIENT
use of industrial land should be explored

NO NET-LOSS
of industrial floorspace

REFUSE
introduction of residential, retail and leisure to SIL unless part of coordinated consolidation

CONSOLIDATE
SIL or LSIS to introduce residential, social infrastructure, town centre renewal

CO-LOCATE
residential and industrial uses where appropriate



Large parts of Ealing are covered by Opportunity Area designations including Southall and Old Oak and Park Royal (OOPR). These large areas are areas that have a clear and ambitious vision; capacity for accommodating high levels of housing and employment growth; and their transformation is of great importance to both the borough and London as a whole.

These large areas are typically industrial sites that require large amounts of public and private sector investment over a sustained period to unlock their potential for growth. Planning frameworks exist for both Southall and OOPR, with the Old Oak and Park Royal Development Corporation overseeing the coordination and transformation of the latter.

The Opportunity Area Planning Frameworks set out a strategic approach to delivering large infrastructure interventions needed to reach the potential number of homes and jobs. Placemaking and heritage are recognised as key ingredients for the successful long-term regeneration of these sites.

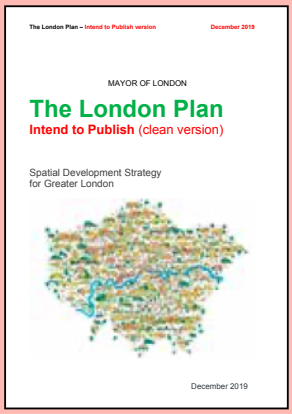
The draft London Plan sets out the requirement to identify both Strategic Areas for Regeneration and Local Areas for Regeneration. The former constitutes the 20% most deprived LSOAs (based on the Indices of Multiple Deprivation); whilst the latter should be identified by Local Authorities to capture areas where the impacts of inequality are acutely felt but not reflected within IMD.

OPPORTUNITY AREAS AND STRATEGIC AREAS FOR REGENERATION

Southall Opportunity Area has the capacity to deliver high volumes of mixed use development, transformed through major strategic infrastructure investment like the Elizabeth Line, Southall Station

Large numbers of high quality homes have already been delivered, such as Southall Waterside - a mixed community with high levels of tenure mix including social rent

Draft London Plan Chapter 2: Spatial Development Patterns Policies SD1



IDENTIFY
Strategic Areas for Regeneration and Local Areas for Regeneration

RANGE
of different regeneration initiatives are important - not just housing

ANALYSE
demographic make up of these areas

ENGAGE
communities to understand their needs

ADDRESS
causes of deprivation and inequality

No. of homes and jobs
Nascent

OLD OAK AND PARK ROYAL OA

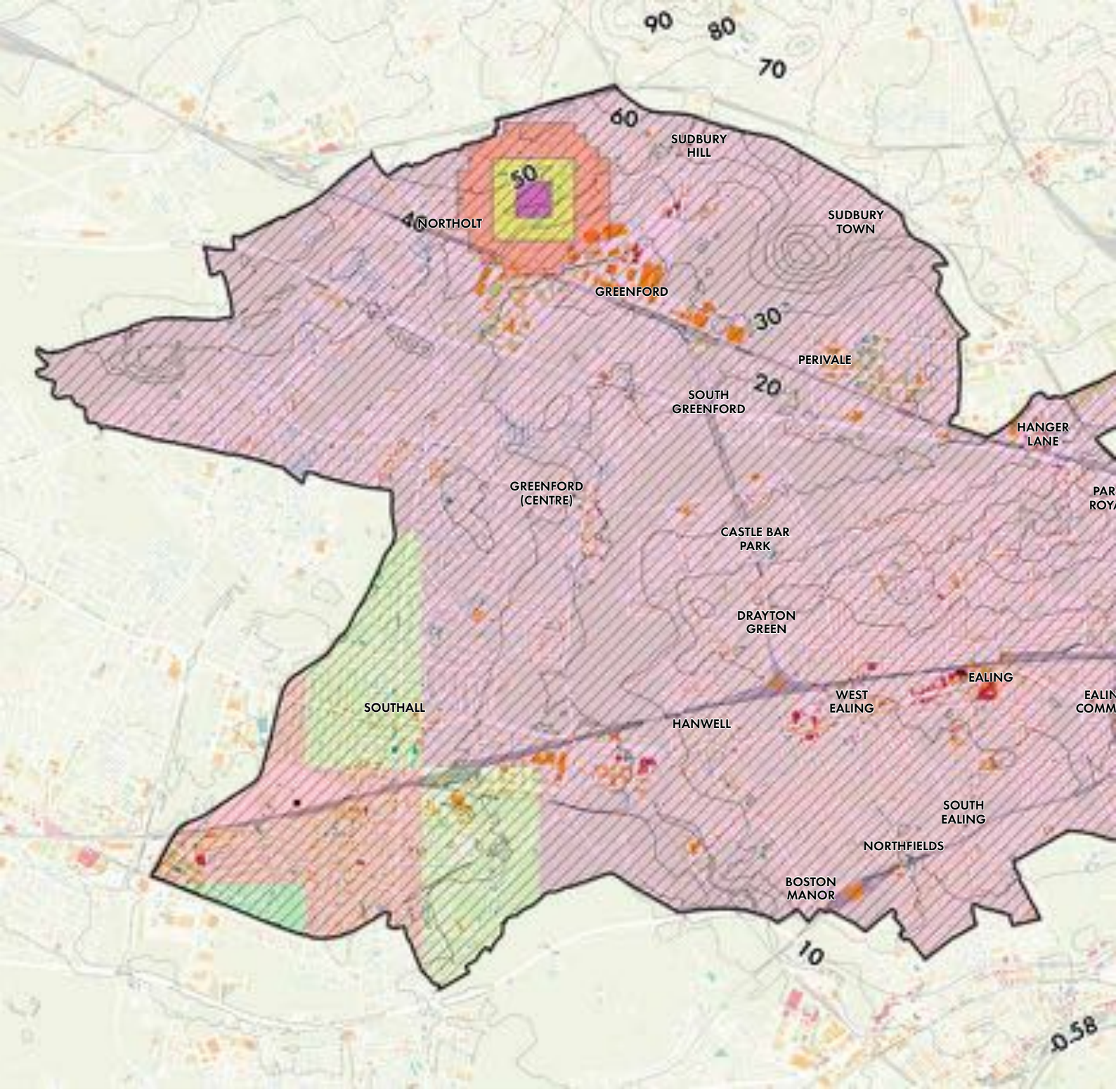
25,500 *Indicative homes*

65,000 *Indicative jobs*

SOUTHALL OA

9,000 *Indicative homes*

3,000 *Indicative jobs*



Ealing and neighbouring west London boroughs fall within a safeguarded aviation space designation by the Civil Aviation Authority due to their proximity with major international airport, Heathrow, as well as Royal Air Force station RAF Northolt. This designation aims to ensure their operation and development are not inhibited by and is an integral part of the town planning system.

The plan above illustrates the safeguarded aviation zones across Ealing, indicating where the height of any building, structure, erection or works must not penetrate the protected surface; affect the operation of the airport; or safe movement of aircraft. The plan takes topography into account and reveals where some areas are more sensitive than others, which is typically in the south west and north west of the borough, closest to Heathrow and RAF Northolt respectively.

The majority of the borough is covered by a requirement for all applications for buildings and structures taller than 90 metres in height to consult the Airport Operator. The area around North Acton station is the least sensitive, with this requirement only applying for applications 150 metres or taller; which in combination with its high PTAL score suggests why it is suitable for the tall buildings cluster now established.

Moving forward, the plan will be useful to include in the suitability and sensitivity assessment of different areas for tall buildings.

SAFEGUARDED AIR SPACE

Emerging tall buildings cluster, Southall

Tall buildings cluster, North Acton

Tall co-living scheme, Acton

St. Mary's Church in Harrow on the Hill, Harrow

Looking west from higher land in the north of the borough, Sudbury Hill

One of the highest points in the borough, Horsenden Hill from Greenford station

Legend

Wind Turbine Safeguarding Area

NORTHOLT AIRSAF

All Buildings, Structures, Erections & works exceeding 10 metres in height (32.8 Feet) AGL

All Buildings, Structures, Erections & works exceeding 15 metres in height (49.2 Feet) AGL

All Development AGL

LBE area affected by Heathrow Airport development constraints

All Apps for development likely to attract birds and all apps connected with an aviation use. See Joint Circular 01/2003

All buildings, structures, erections & works exceeding 15 metres in height (49.2 feet)

All buildings, structures, erections & works exceeding 150 metres in height (492.1 feet)

All buildings, structures, erections & works exceeding 45 metres in height (147.6 feet)

All buildings, structures, erections and works exceeding 90 metres in height (295.3 feet)

All development except the construction, extension, or alteration of up to 3 No. residential dwellings not exceeding 2 s

Building heights

- 0 - 3m (0-1 storeys)
- 3 - 6m (1-2)
- 6 - 9m (2-3)
- 9 - 12m (3-4)
- 12 - 21m (4-7)
- 21 - 48m (7-16)
- 48 - 60m (16-20)
- 60 - 100 (20+)

DRAFT

6 SOCIO ECONOMIC CHARACTERISTICS

The relationship between the social and the spatial is complex and multi-layered and it is important to have an understanding of Ealing's community and residents in order to then develop an approach to intensification which can best address current issues and meet future needs.

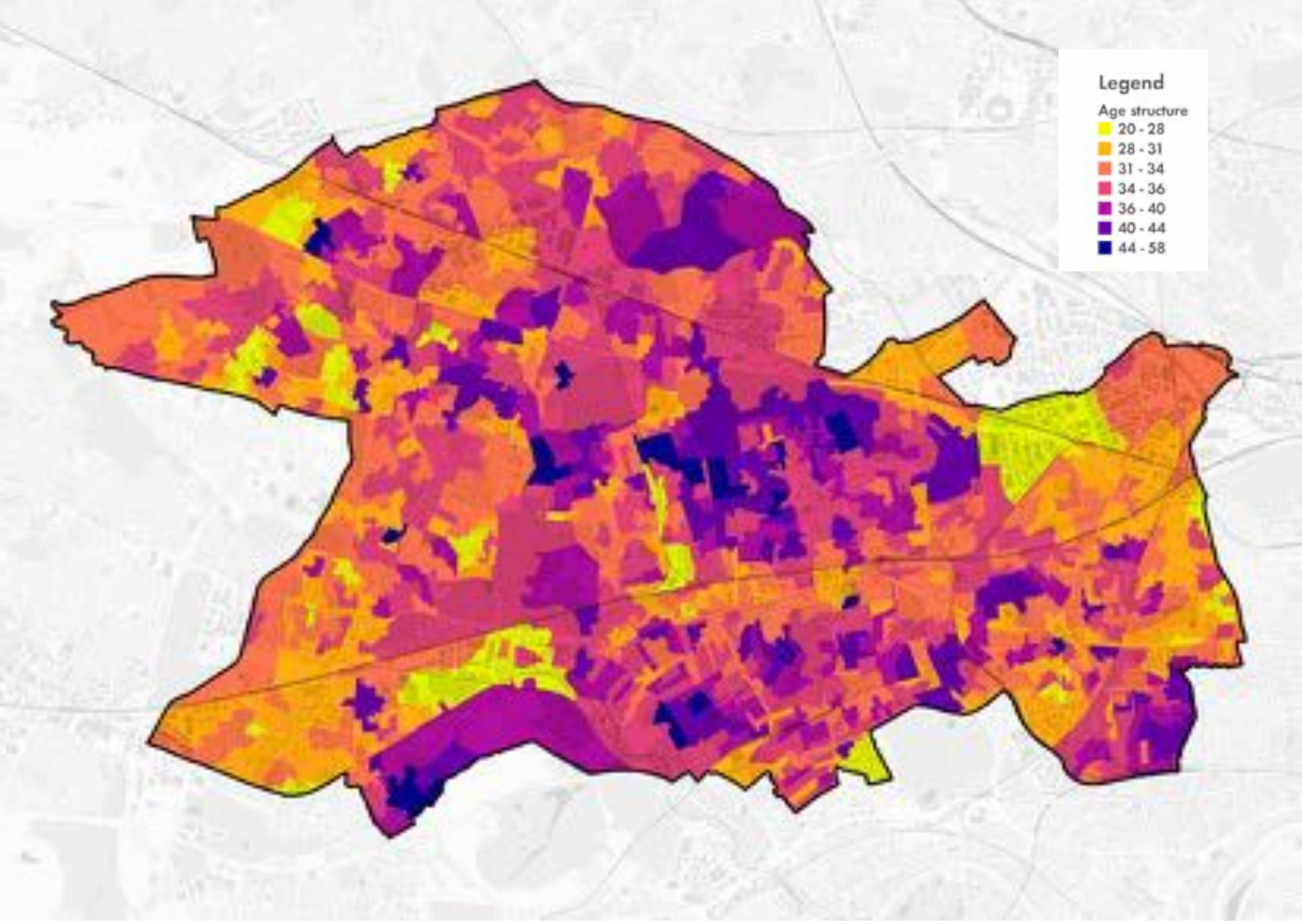
Some of Ealing's socio-economic characteristics include:

- A diverse borough with some neighbourhoods concentrated around ethnic and cultural communities, and other neighbourhoods with a great diversity within a small area.
- Issues to overcome in terms of the affordability of homes for residents and the living environment (air pollution and traffic impact) in some parts of the borough.
- An interesting relationship between housing type and population density levels across the borough, with a mix of types providing higher density living.
- Focused areas of social housing scattered across the borough which may benefit from greater integration and connectivity with the surrounding areas. This has happened at Acton Gardens and is in the process of happening elsewhere.

Busy streets in Southall

Southall Waterside play space for younger residents

New church space in West Ealing



Age structure

In general, Ealing has a slightly higher average age than for central or east London, but lower than for the country as a whole. Within the borough, the population is slightly younger in the Southall area, far south west of the borough, and in Acton, at the far east of the borough.

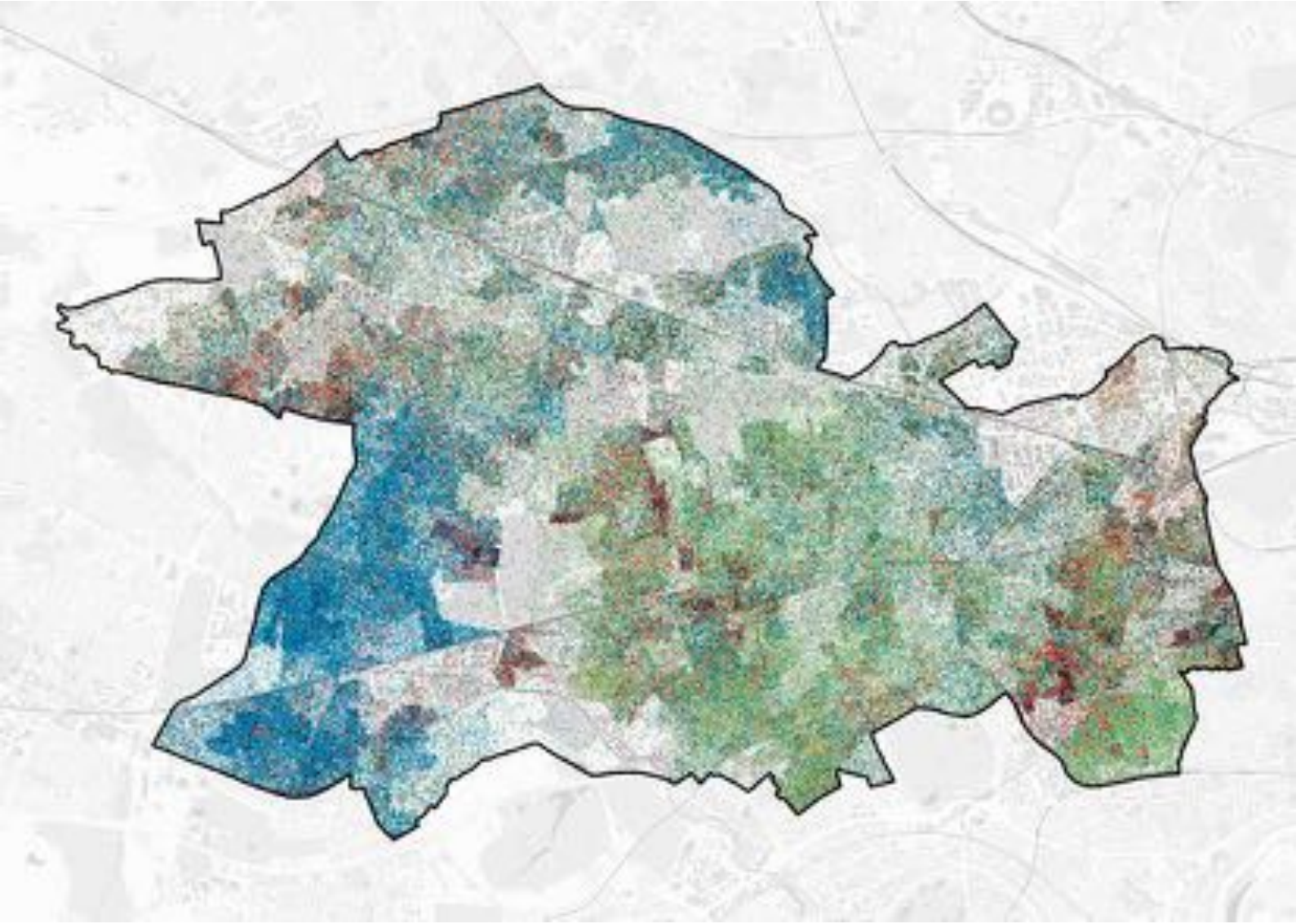
Slightly older residents are found in north Ealing, east Greenford, in south Acton and south of Southall. In some cases, this aligns with areas of higher house prices.

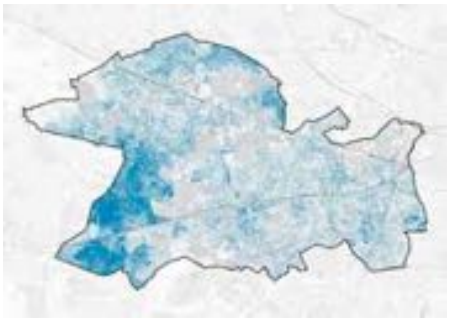
Ethnicity

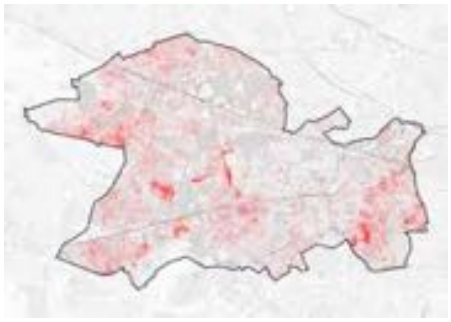
Ealing is a diverse borough with British Asian, African and Caribbean communities all well represented. Within this diversity, living patterns are visible, with a very large Asian /British Asian community in Southall and British African and Caribbean communities in south Acton, Hanwell and Northolt. The borough's White British community is most represented in Ealing, Hanwell and the southern parts of Acton.

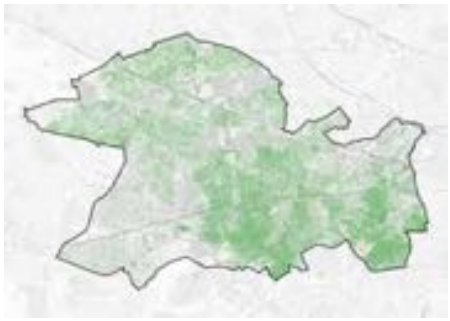
The greatest diversity in the borough is found in Northolt, in Hanwell and in Acton, each of which have areas with very mixed neighbourhoods.

The borough also has smaller communities that would not be visible on borough-wide plans such as the Japanese community in the West Acton area and the French community in the north Hanwell area.









Legend

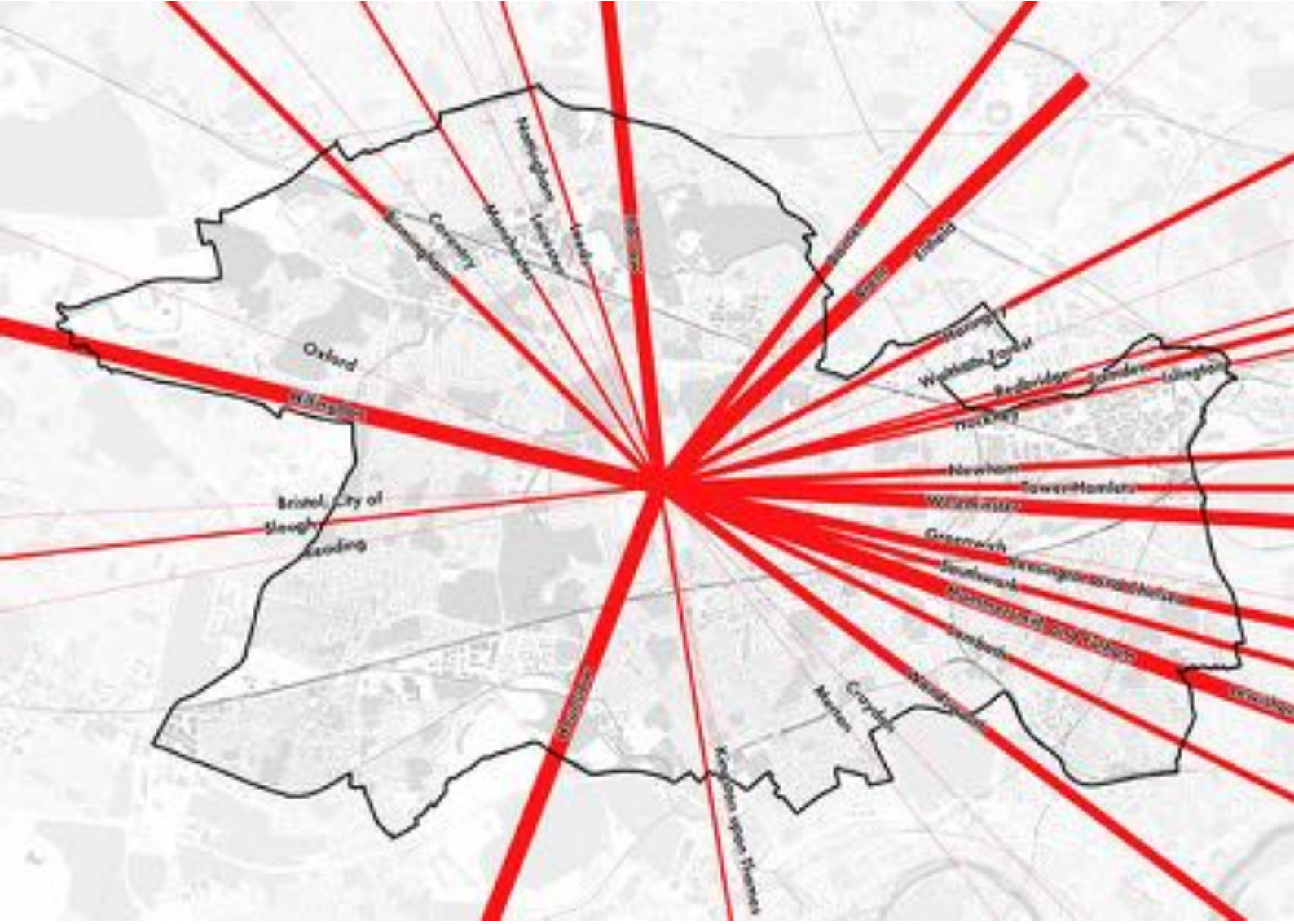
- White
- Asian/Asian British
- Black/African/Caribbean/Black British
- Mixed multiple ethnic groups
- Other ethnic group

Migration out of the borough

The strongest flows of people moving out of the borough of Ealing are to neighbouring London boroughs, particularly to Hillingdon to the west, Hounslow to the south, Brent to the north east, Harrow to the north and Hammersmith and Fulham to the east. Other London boroughs also feature as destinations for people moving from the borough.

In terms of more significant moves, Birmingham and Slough feature as the strongest recipients for movers, with Windsor, High Wycombe and Spelthorne borough also appearing.

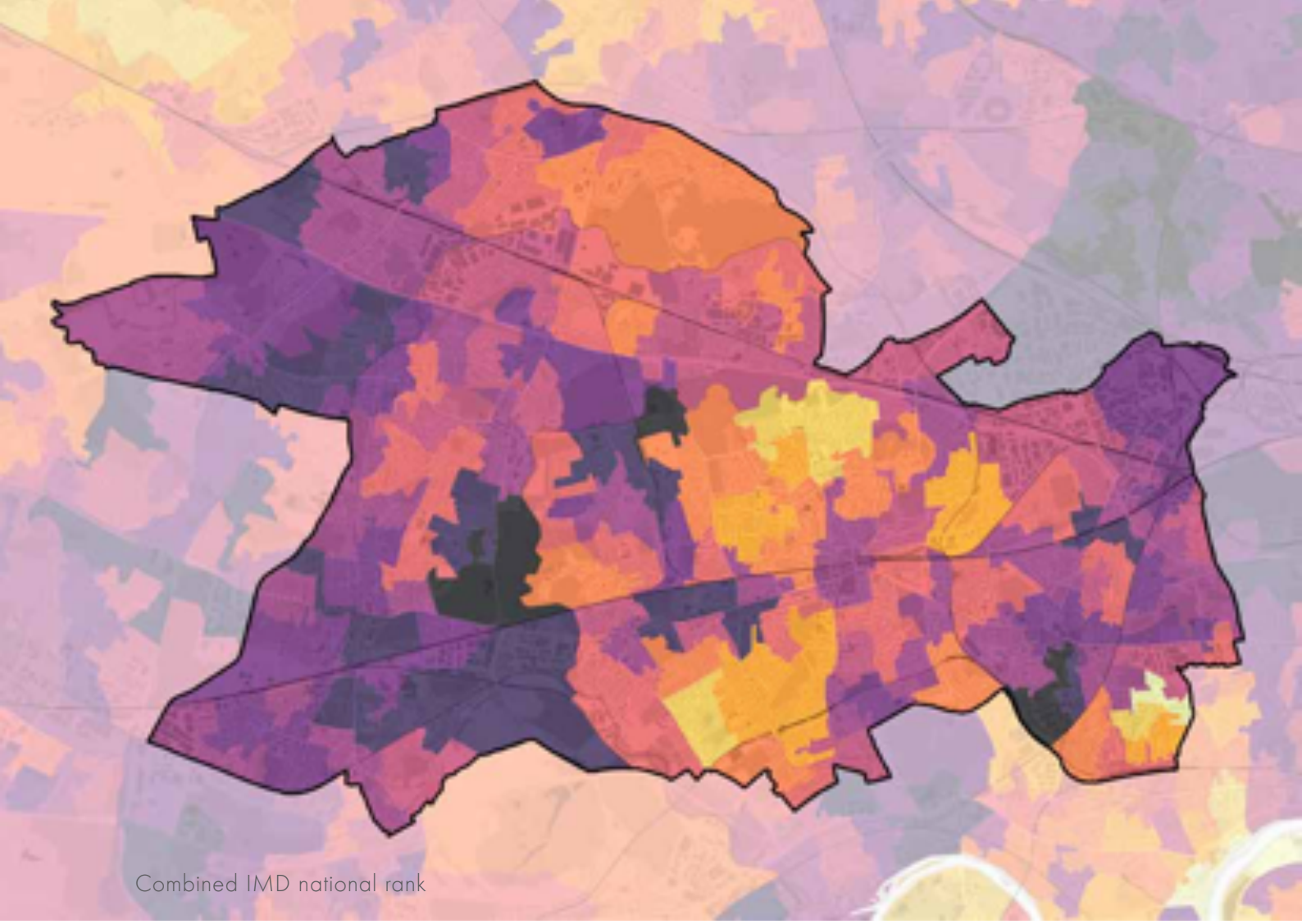
The data does not strongly suggest that Ealing is a staging post for residents as they gradally move out of London, as is the case for some other mid- or outer-London boroughs.



Migration into the borough

The most common origins for people moving into the borough of Ealing are Hillingdon, Hounslow, Brent and Hammersmith and Fulham. Harrow and Westminster and Wandsworth also feature as notable origins of people moving into the borough.

For both the migration in and out of the borough, neighbouring areas seem to have strong relationships as people move within the same broad area of London they are familiar with, whilst being oblivious to the administrative boundaries.



Indices of multiple deprivation

The overall IMD national rankings show a patchwork across the borough. The pockets of greatest deprivation actually cover large open spaces, but also include the Dormer's Wells and golf club area in Southall; the Gurnell Grove area of north Ealing and the Colville Road area of South Acton.

In general, the western part of the borough covering Southall and Northolt has greater levels of relative deprivation, as does the Park Royal area of north and east Acton. Ealing and the South Acton areas close to Chiswick have the lowest relative levels of deprivation.

Looking at each of the seven IMD domains separately gives a more granular reading of issues in the borough that could be addressed through intensifcation and related investment.

Barriers to housing and services covers physical and financial accessibility of housing and local services. This shows high levels of relative deprivation across the borough, likely as a result of the high house prices in the borough and low levels of affordability. Northolt, Southall and Park Royal have a slightly higher deprivation rank within the borough.

Levels of crime measures the risk of personal and material victimisation at the local level. This shows higher relative levels of deprivation in the Hanwell area, along with pockets in Acton.

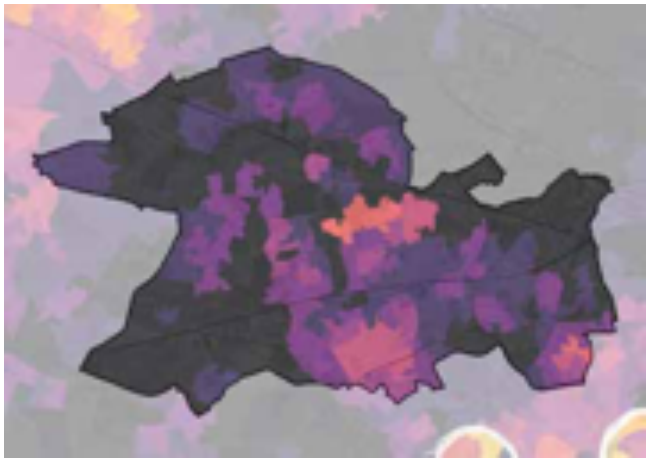
Living environment covers the quality of housing for the 'indoor' environment and air quality and road safety for the outdoor environment. This shows a relatively poor environment in north Acton, Ealing Common area (due to the A416), west Ealing and close to Hanger Lane.

Employment rank shows a greater mix across the borough and lower relative deprivation in the Ealing and Perivale areas.

Levels of education are relatively high in the central Ealing swathe of the borough and low in western Southall and Northolt areas.

Income levels show a similar pattern to the employment rankings, but is relatively mixed across the borough, with pockets of both relative deprivation and comfort across the borough.

Levels of **health deprivation** and disability across the borough appear to be low, with a slight increase in the west of the borough.

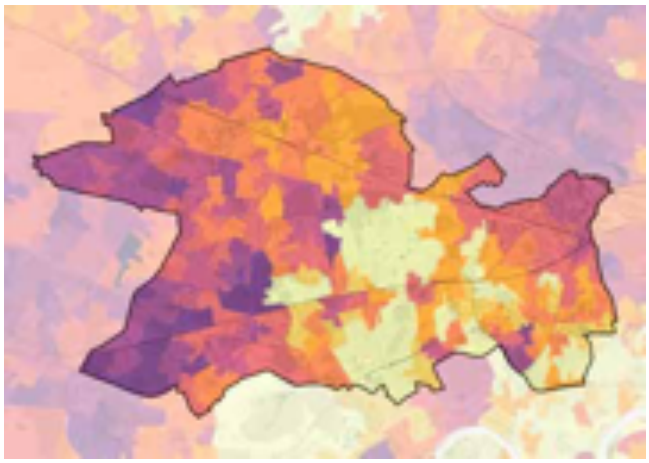


Barriers to housing and services national rank

Levels of crime national rank

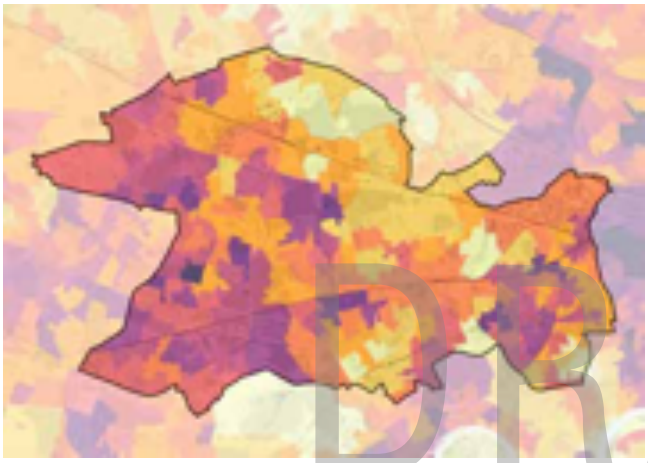
Living environment national rank

Employment national rank

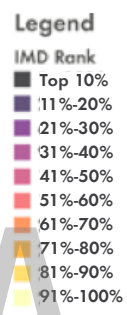


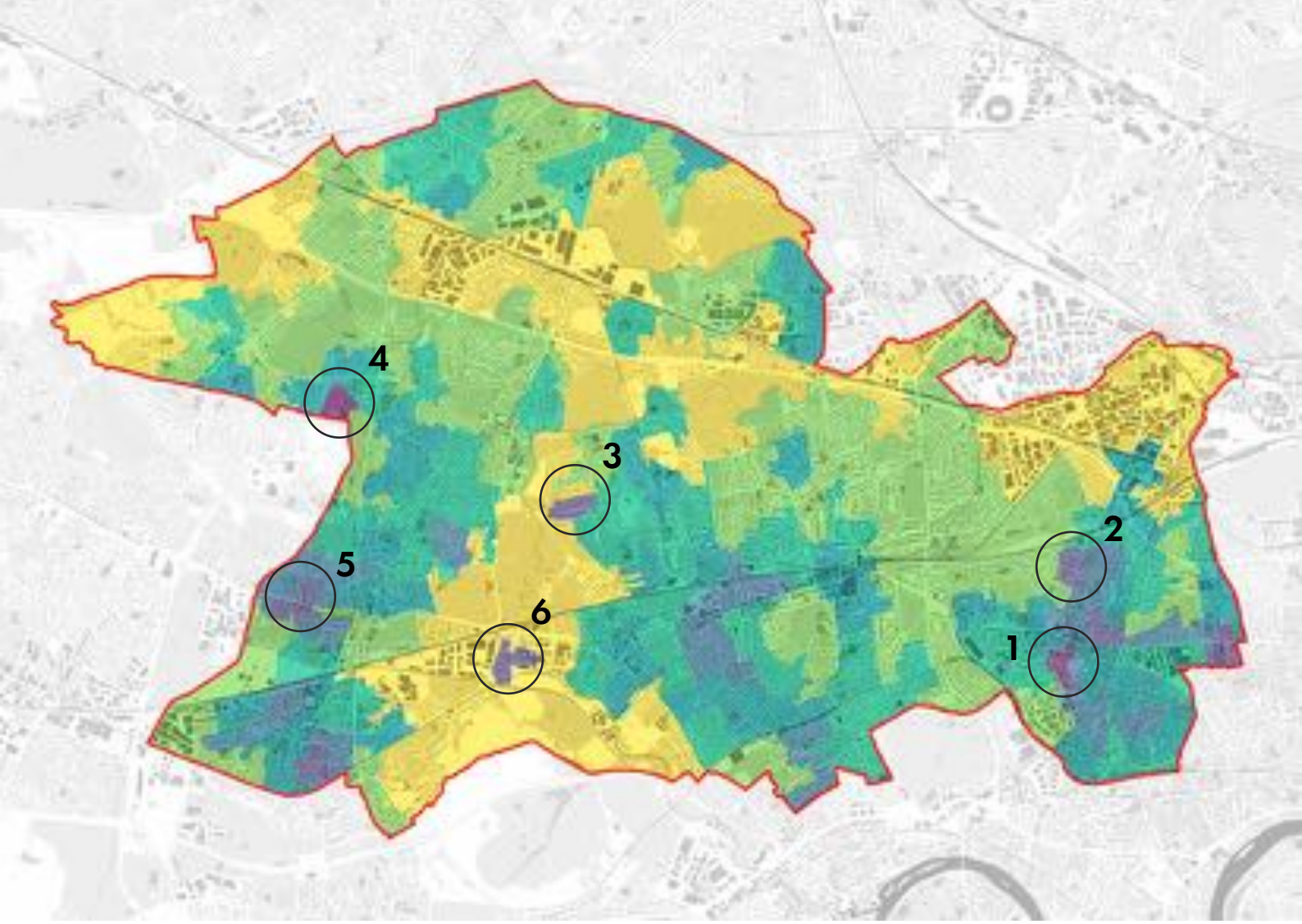
Level of education national rank

Income level national rank



Level of health and disability national rank





Population density

Population density does not always correlate neatly with building density, whether that is dwellings per hectare (dph) or floor area ratio (FAR). Given that the purpose of homes is to house people, it is worth considering which areas and associated building types provide the highest levels of population density. The highest population densities are found in:

1. Some of the point blocks of the South Acton estate which are now perimeter apartment blocks and town houses in Acton Gardens.
2. Some of the terrace housing in Acton, many with loft conversions.
3. Thames Court estate free-form slab blocks in Hanwell
4. Apartment blocks in the Taywood Road area next to the Paddington Branch Canal in south Greenford
5. Terraced and 1930s housing in Southall, many with loft conversions and outbuildings or 'granny annexes' in the garden
6. Perimeter blocks developed next to Middlesex Hospital, as this has consolidated

Acton Gardens perimeter blocks and town houses

Acton Edwardian terraces with loft conversions

Thames Court free form slab blocks

Taywood terraces and apartments

Southall terraces with back garden out houses

Mansion blocks on former hospital grounds

Concealed households

As demonstrated in the population density plans, a high proportion of concealed households are found in the Southall area, where 1930's terrace housing has been supplemented through loft conversions and out buildings in rear gardens.

Relatively high instances of concealed households are also found in the north Greenford and Perivale areas.

Legend

Concealed family status

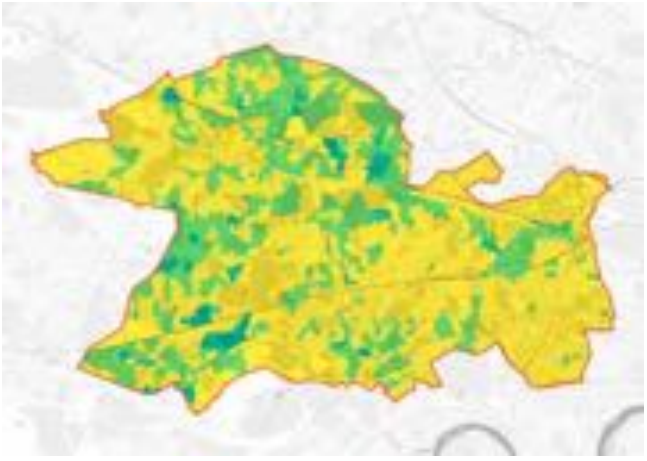
- 0 - 3
- 3 - 7
- 7 - 12
- 12 - 19
- 19 - 30

Terrace housing in Southall with outbuildings developed in rear gardens

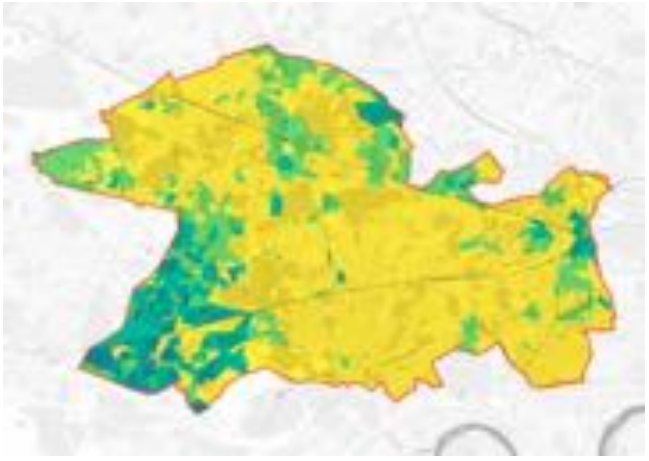
Predominance of 1 person households

Predominance of 2 person households

Predominance of 3 person households



Predominance of 4 person households



Predominance of 5 person households

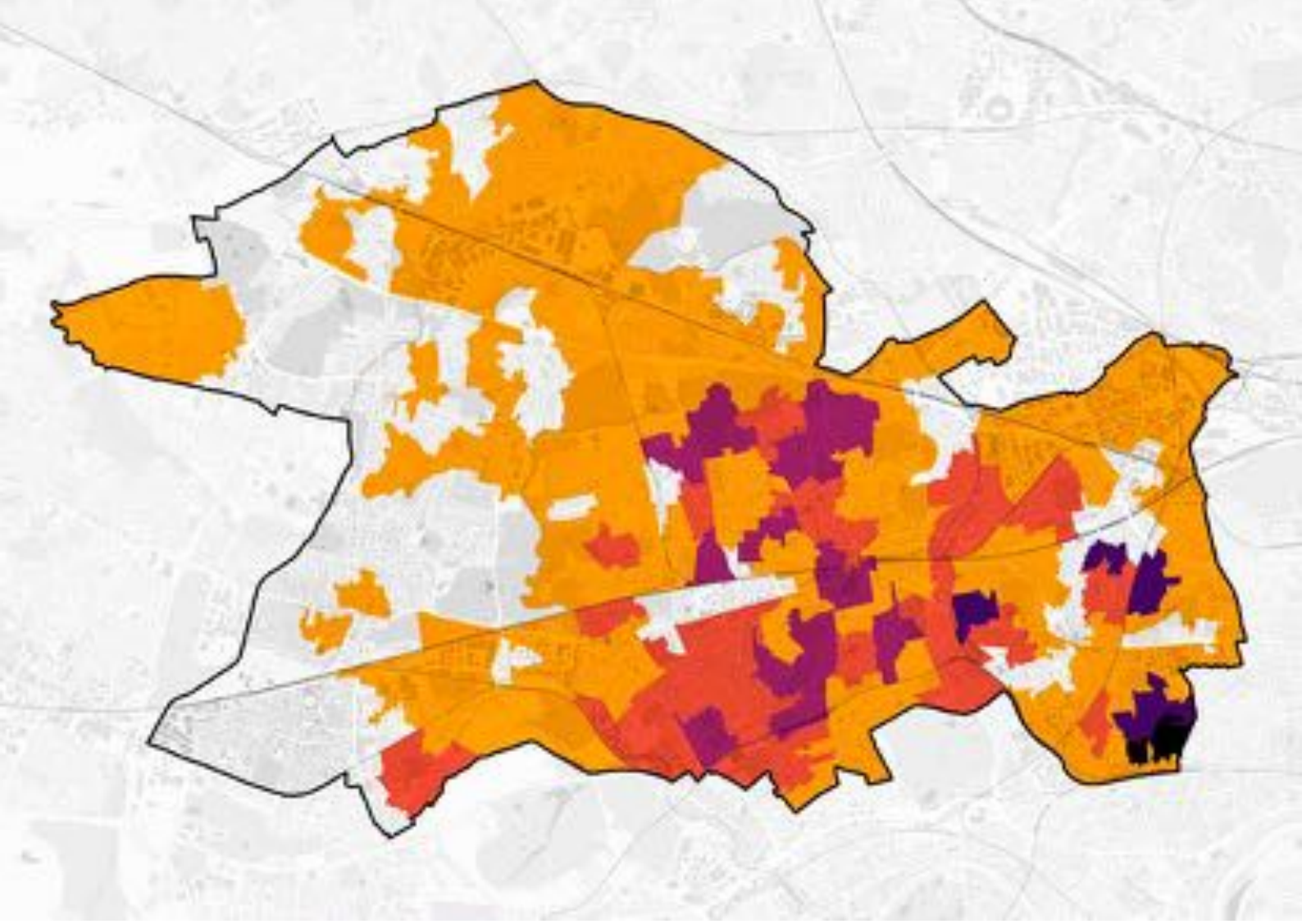
Household sizes

The highest instance of one person households are understandably found in North Acton, where there is a large amount of student housing. There is also a relatively high proportion of one person households in Acton, central Ealing and west Ealing areas.

Two person households follow a similar pattern in the borough, with a high proportion in north Acton, central Ealing and west Ealing.

Both three and four person households are spread reasonably evenly across the borough, with four person households having a slightly greater prevalence towards the west of the borough.

Five person households are very clearly concentrated in Southall, which tallies with multi-generation living and the concealed household and population density data. Five person households are also found in north Greenford and in east Acton.

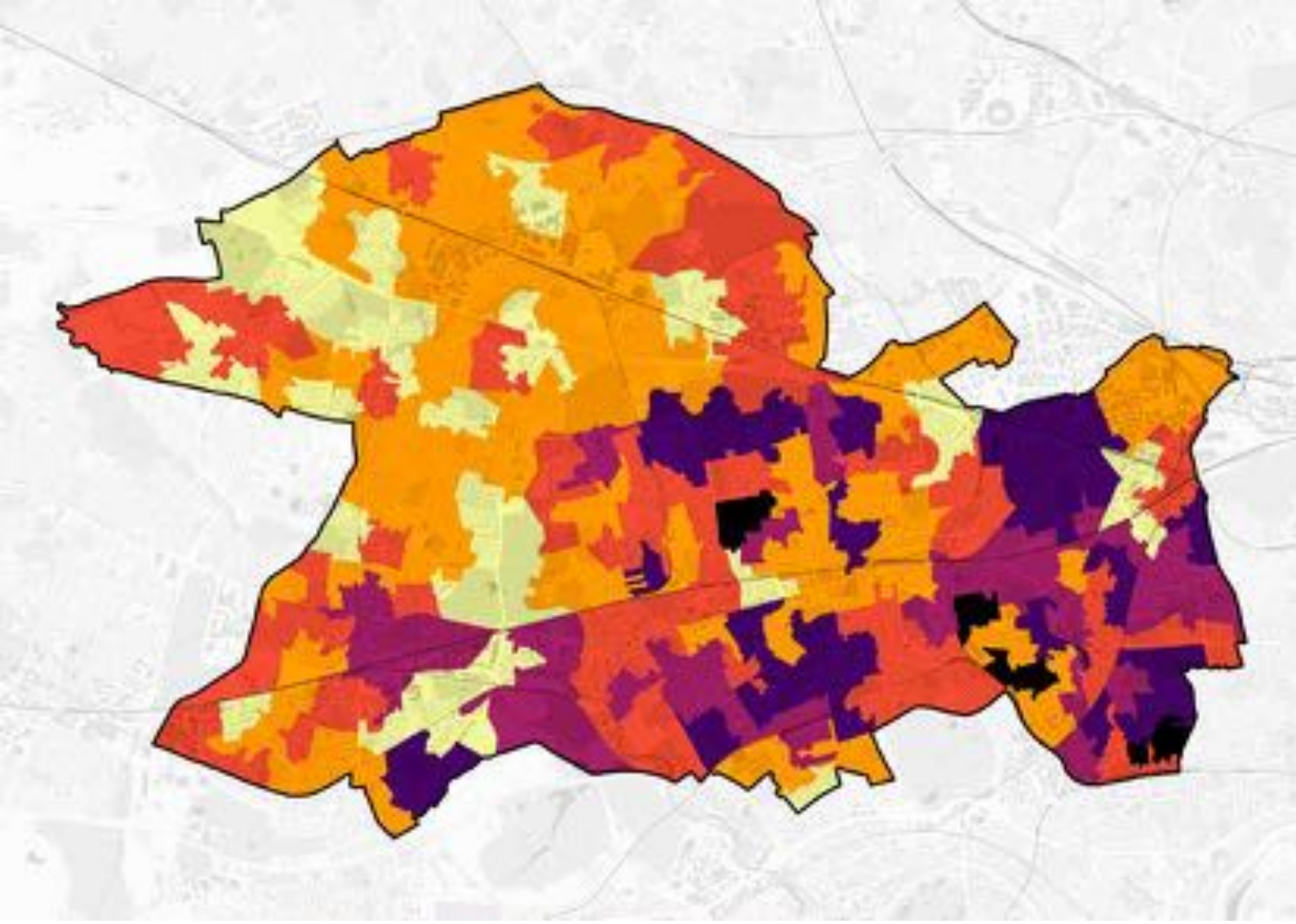


Median house prices

Median house prices across the borough show higher prices of between £600k and £1 million in the Ealing town centre area, with this being a patchwork across the broad area rather than a concentration in any one particular neighbourhood.

The highest house prices in the borough are found in Bedford Park, the spacious Garden Suburb style homes in the far south east corner of the borough.

There are also more affordable homes in the eastern (more central) part of the borough, stretching up from south Acton to north Acton. The west of the borough is generally cheaper, being further from central London.



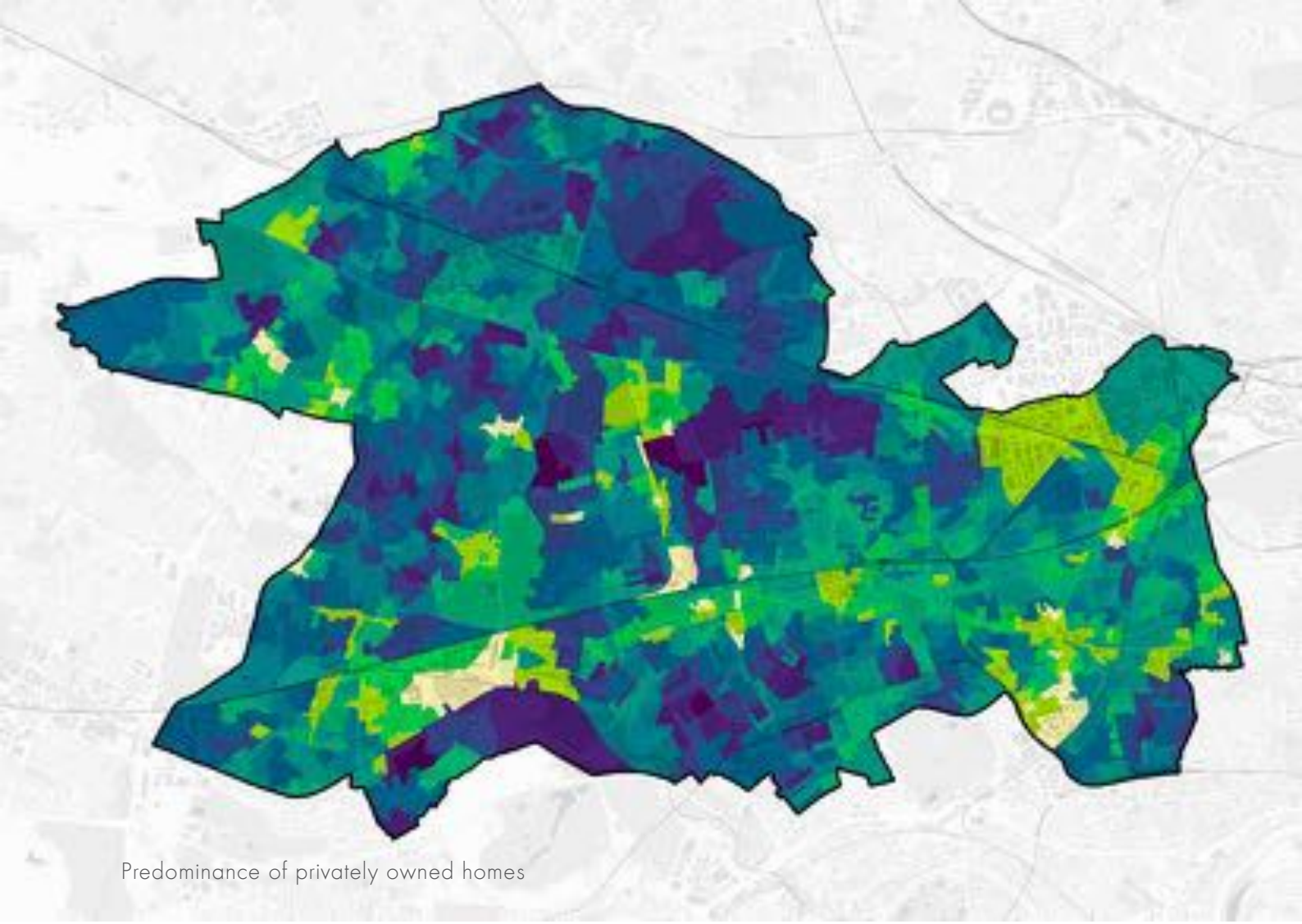
Housing affordability

Housing affordability reflects average house prices for a local area divided by the average annual income in that area. Overall, the borough has a patchwork of affordability rather than a clear cut pattern.

The data shows that the north west of the borough is generally more affordable for residents. However, there are pockets of unaffordability where house prices are 9-15 times annual incomes in the Southall area.

South Ealing, the Pitshanger area and central Ealing and a large part of Acton all have house prices between 11 and 15 times annual income.

Particularly unaffordable areas are found at Bedford Park, in pockets of south Acton, and to the north west of central Ealing.



Predominance of privately owned homes

Housing tenure

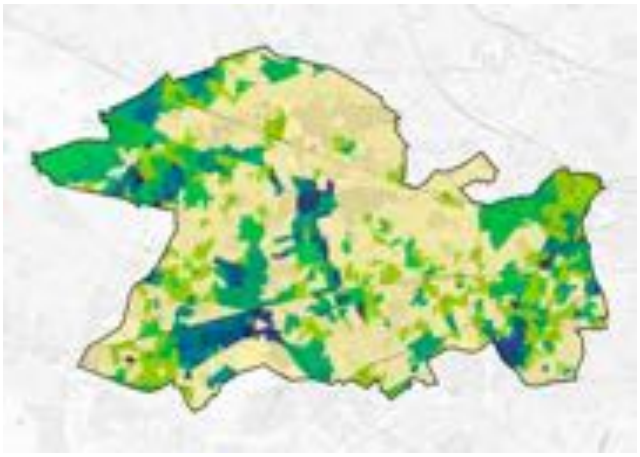
The data shows that the borough has high levels of owner occupier housing across the borough, with this being particularly high in north west Ealing, south of Southall and in Greenford.

The east of the borough has lower levels of ownership, and a spine of lower ownership levels can also be seen running alongside the Great Western rail line.

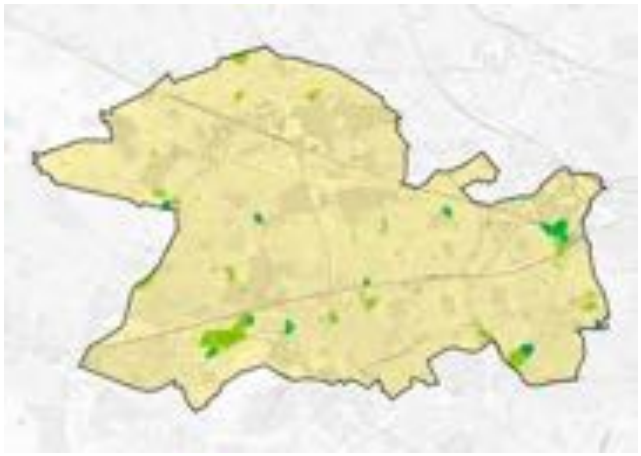
Privately rented homes are found in slightly higher concentrations in the central Ealing area, close to the Uxbridge Road heading between Ealing, Acton and Shepherd's Bush, and west of Ealing, close to the rail line and Uxbridge Road. This may relate to homes close to transport links being purchased as investment properties and rented out.

Socially rented homes have clear concentrations, relating to estates at South Acton, north Hanwell, Southall, and Northolt.

Predominance of privately rented homes



Predominance of socially rented homes



Predominance of shared ownership homes

Predominance of people living rent free

Shared ownership homes at Southall Waterside

Privately owned homes in south Acton

Maisonettes just off the Uxbridge Road, many of which are privately rented

Recently replaced social housing in Dormer's Wells

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8 CONSIDERING INTENSIFICATION

An understanding of the physical, functional and socio-economic characteristics of the borough is crucial in planning for future areas of housing intensification within the borough, and for ensuring that these new developments integrate well and can enhance local character rather than compromise this.

In anticipation of Stage 2 of the study, it is useful to reflect on the GLA criteria for small sites, and where these will be deemed suitable within the borough.In addition to reviewing the three core criteria for small sites, it is also worth reflecting on factors that will help to provide a good quality of life and address local needs in the borough.

The following pages, therefore, map the three criteria for small sites against areas for regeneration, those with good access to open space, and those which are likely to deliver homes that are most afffordable to local people.

This section also sets out initial reflections on recent residential development within the borough and key issues that they raise for delivering new homes in Ealing. These reflections are based on site visits with officers and online research. The examples will be further explored and expanded during the next stage of the project.

A new family home on an infill site close to Ealing town centre

Goshawl Court: a terrace of townhouses, on sloping land in Sudbury Hill

Arthur Court: a residential block with communal garden and cycle parking in Greenford

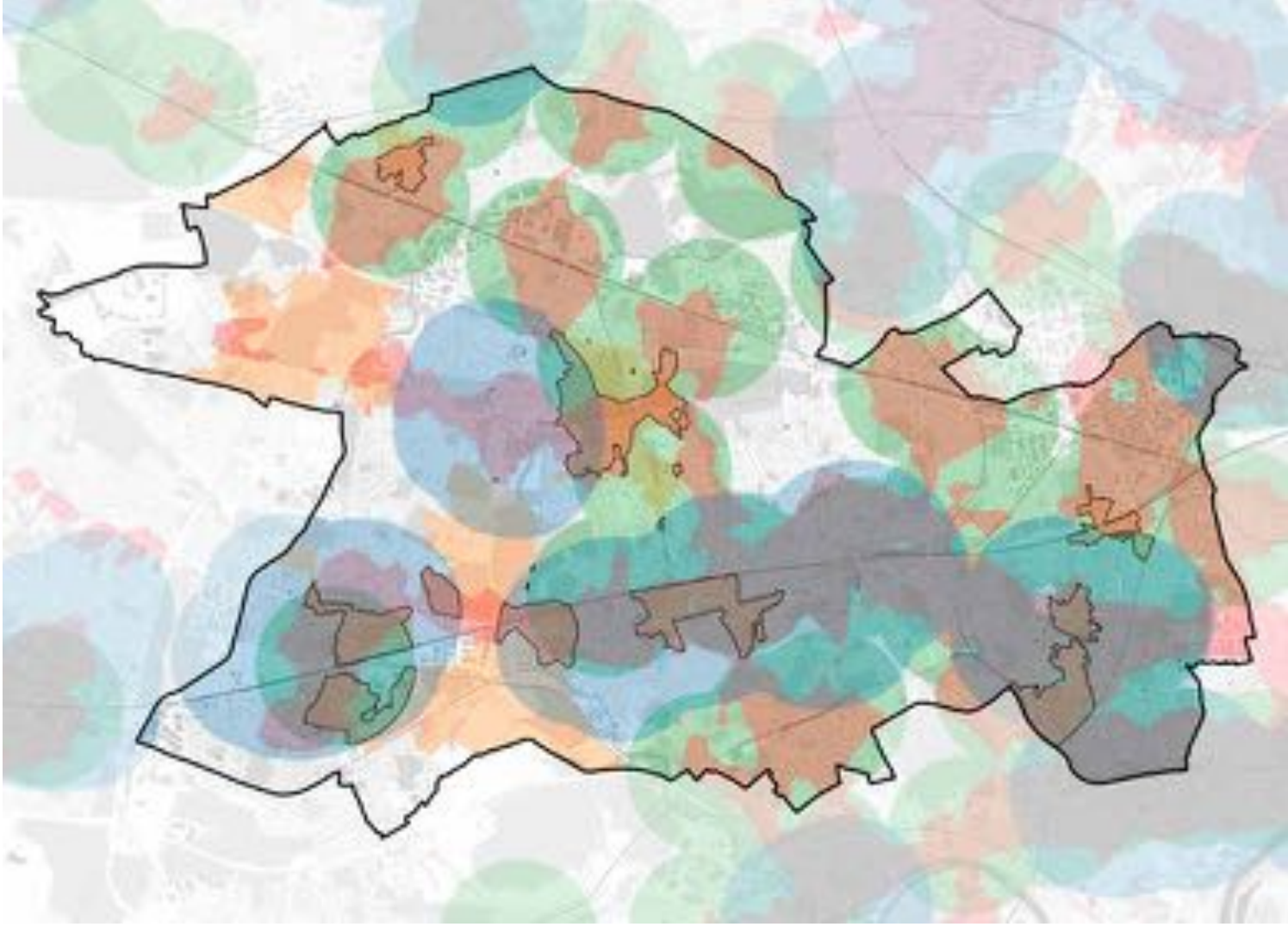
SMALL SITES CRITERIA

The Intend to Publish London Plan (2019) identifies the contribution of small sites development (those being 0.25ha or smaller) as being a significant source of housing over the plan period. A substantial number of homes has been targeted for small sites across London, with Ealing requiring 4,240 homes over the next ten years.

The qualifying criteria for small sites includes areas that are within 800m of a train or tube station; within 800m of a town centre; or within PTAL 3-6b.

The plan above illustrates that a significant portion of the borough is covered by one of these three criteria and is, therefore, eligible for consideration in delivering homes on small sites.

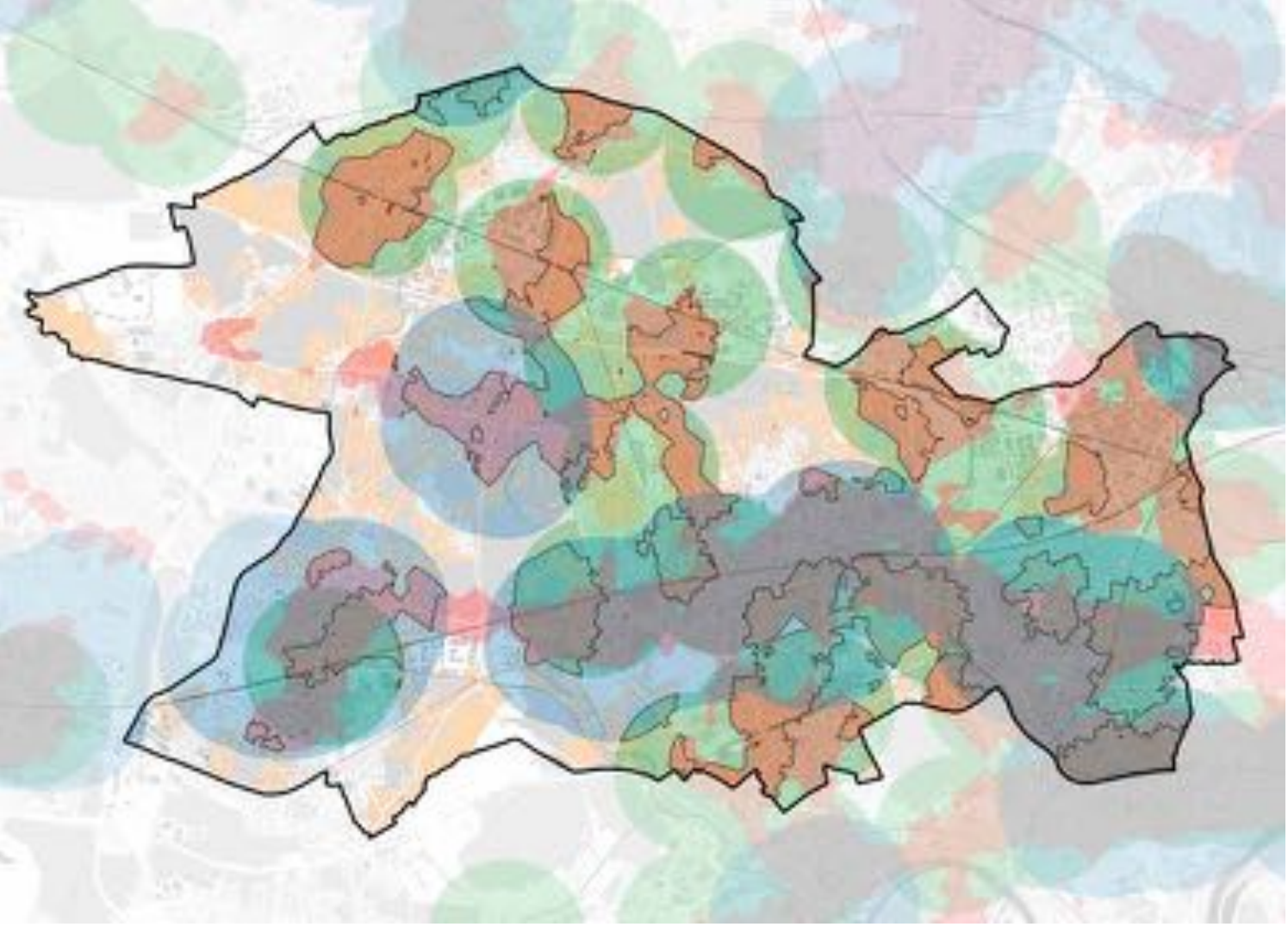
In identifying priority areas for intensification through small sites, it is worthwhile overlaying this data set with other factors that might influence new homes delivery.



AREAS OF REGENERATION

The Intend to Publish London Plan (2019) identifies areas within the top 20% national rank of Indices of Multiple Deprivation as priorities for regeneration, where new homes can be focused but where development should help to address any locally-specific deprivation issues and help to overcome inequality rather than simply providing new homes.

The plan above illustrates areas that meet two of the London Plan small sites criteria and are within the top 20% of relative multiple deprivation nationally. These could be areas for strategic investment in new homes, alongside related regeneration measures.

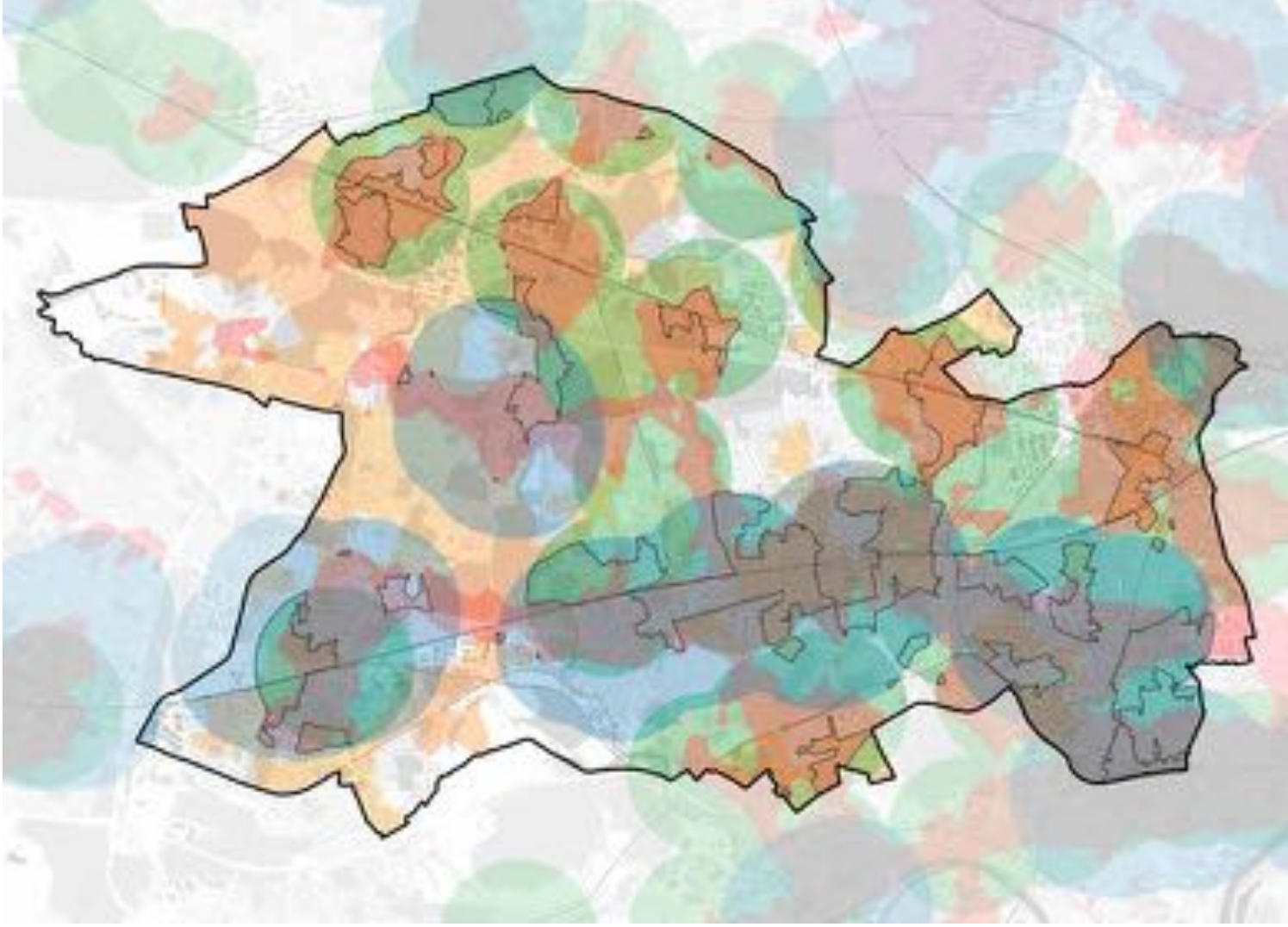


ACCESS TO OPEN SPACE

The Intend to Publish London Plan (2019) stipulates that all new homes should be within walking distance of an open space which is two hectares or larger.

If possible, it would be sensible for Ealing to prioritise new housing (both on small sites and large) that meets these criteria for open space access and can help to support the physical and mental health of residents.

The plan above illustrates the areas within Ealing that meet two of the London Plan small sites criteria and are also within walking distance of open spaces which are two hectares or larger.



AREAS OF AFFORDABILITY

Finally, we are mindful that London has not only a shortage of housing in general, but an intense shortage of affordable homes for Londoners.

It would be helpful if new homes could be focused in areas that are most likely to be affordable for local residents and residents of neighbouring boroughs.

The plan above illustrates areas within the borough which meet two of the London Plan small sites criteria and are also within the two most affordable categories for housing in the borough - homes which are between 4.2 and 7.8 the average annual salary for the local area.

It is worth noting that by overlaying the London Plan small sites criteria with these relevant data sets, areas of commonality emerge which could be useful in prioritising the location of new homes on small sites in the future.

EXISTING HOMES INTENSIFICATION

Side extensions

Side extensions are found across the borough and range from modest extensions to increase the size of internal rooms to significant expansions introducing new rooms at ground and upper levels. Key considerations for side extensions include:

- The scale of the extension and its relationship to the original building
- The treatment and pitch of the roof to the extension
- The fenestration and its relationship to the original building; materiality and its relationship with the original materials; and
- The relationship with the road and pavements if the building is on a corner plot.

Loft conversions and roof extensions

Loft conversions are very common in Ealing's Victorian, Edwardian and 1930's homes across the borough. Loft conversions themselves have limited impact on the streetscene and provide valuable additional space in homes. Roof extensions as part of a conversion have a greater impact and key considerations for these include:

- The inclusion of box dormers and the scale of these in relation to the original roofline - both in terms of height and width
- The conversion of hipped roofs to gable roofs and the impact on the street
- Where homes are terraced and, particularly, semi-detached, the relationship with the neighbouring, attached roofline
- Fenestration and material choices and their relationship with existing and adjoining materials

Rear extensions

Significant rear extensions are found in particular areas of the borough, including close to the A40 Western Avenue spine, in Southall and in Greenford. These are generally not visible from the street so have minimal impact on the streetscene, but can reduce outdoor amenity space and affect drainage levels, placing pressure on infrastructure in local areas.

Outbuildings

Southall has a proliferation of outbuildings and 'granny annexes' in the rear gardens of Edwardian and inter-war terraced housing, resulting in high levels of population density and high levels of concealed households. As with rear extensions, these are not visible from the street and often occur in buildings with generous rear gardens, but can impact on drainage and amenity space.

A residential block with a single storey extension in west Ealing

Loft conversions and roof extensions in Acton and Greenford, with varying levels of impact

Side extensions range from modest additions, flat roofed extensions and continuations of the roofline for full height extensions

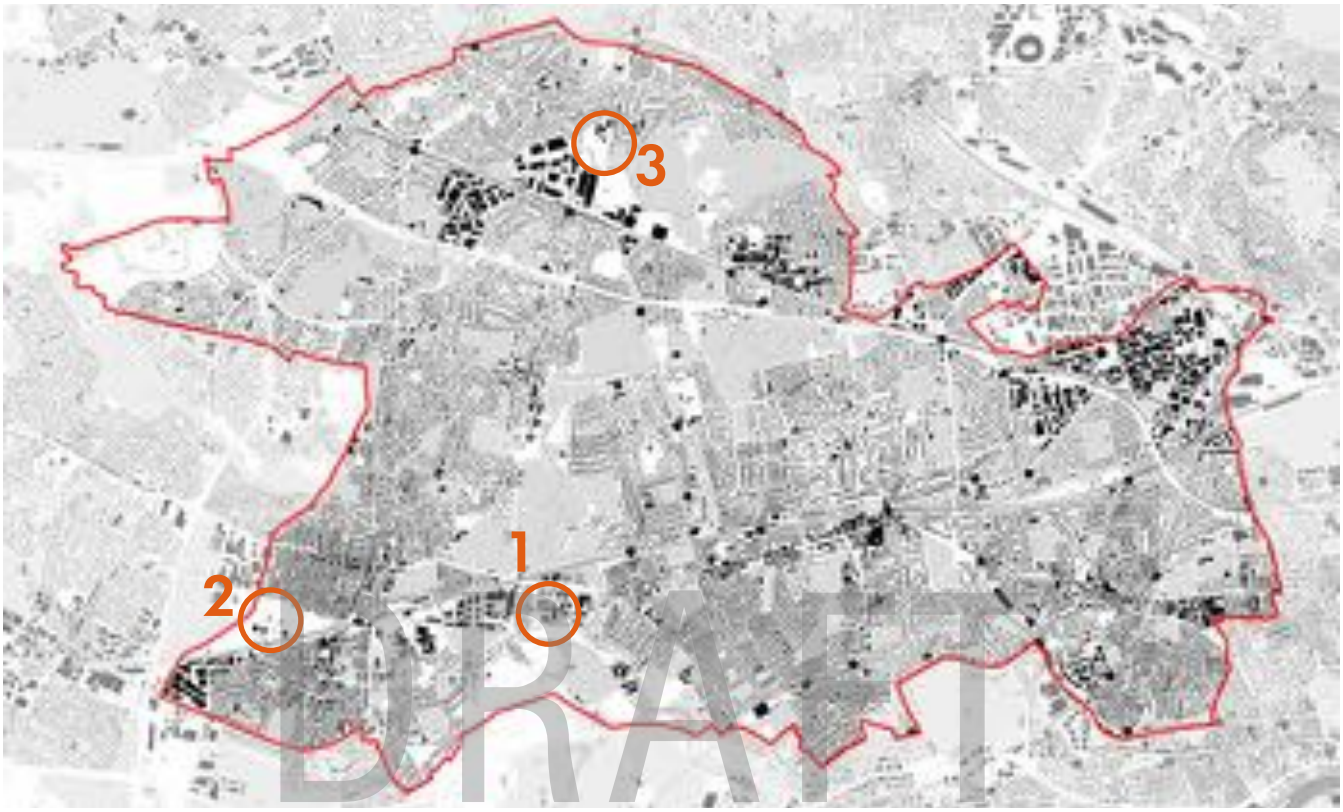
Outbuildings and substantial rear extensions found in Southall

LARGE DEVELOPMENT SITES - ESTABLISHING NEW CHARACTER

Ealing has several significant sites currently under construction or recently completed. Initial reflection on these schemes based on site visits provides an indication of key considerations when bringing forward new homes for the borough at this scale. These considerations include:

- Provision of communal play space and its accessibility to all residents
- Investment in planting and landscaping, and the design of this in relation to buildings
- The provision of a local shop, pub or community use to give neighbourhoods a centre of gravity
- Levels of parking and the impact of this on the character of streets
- Physical and psychological integration with surrounding neighbourhoods, open spaces and access to water courses
- The scale and massing of buildings and the impact of this on immediate, medium and long range views
- The impact of wind on comfort levels in amenity spaces (resulting from building configuration, scale and massing)
- The design of different housing tenures as part of the same scheme and the integration of these
- The role of a masterplan in addressing and resolving the issues outlined above

These issues will be explored in further detail and unpacked during the next stage of the Character Study.



1

Development by Middlesex hospital has attractive materials and good use of undercroft space for parking, but lacks play space and is not integrated with its surroundings or between different phases of development

2

Southall Waterside has a good mix of tenure blind social, shared ownership and private apartments. Play space and cycle parking are provided, the new streets connect well with the existing urban structure and the masterplan suggests the same will be true of the canal. Undercroft space is used for parking, so on-street parking does not dominate.

3

Greenford Quays has good quality materials, large windows and a positive relationship with the canal. However, the scale and massing of the building dominates in short and long views and creates wind tunnels that undermine the public amenity space and investment in landscaping.

ESTATE REGENERATION - ESTABLISHING NEW CHARACTER

The borough of Ealing has undertaken a significant amount of estate regeneration in recent years. New homes are more energy efficient and have generally contributed to more liveable neighbourhoods with usable outdoor amenity space. Some key considerations arise from review of recent schemes:

- Provision of usable open space for residents, with play facilities
- Positive street frontage, with doors opening onto streets
- Connecting with nearby green and blue infrastructure
- Reproviding and enhancing indoor community space for local residents of all ages
- Levels of parking and the impact of this on the character of residential streets
- Where scale permits, use of undercroft parking and decked garden space

1 Hillary Road, Southall has play space and a mix of apartments and town houses, but is dominated in parts by parking courtyards and has a poor relationship with the adjacent branch canal. The residential area is rather isolated from local shops and services.

2 Acton Gardens has replaced the South Acton Estate's point blocks with four storey town houses, maisonettes and perimeter blocks. Landscaping and play areas are well integrated and shops and services provided but replacement indoor community space is smaller and less flexible.

3 Dormer's Wells in Southall has replaced slab-blocks with three storey town houses and contemporary slab-blocks. Frontage to streets is far improved and family homes are provided, but the ratio of streets to buildings and the provision of informal parking areas is not always successful.

4 At the Green Man Estate in West Ealing, concrete point blocks have been replaced with perimeter blocks with undercroft parking and decked communal gardens and town houses. The new accommodation is well liked by residents but open space configurations do not maximise usability for residents and glass balconies suffer staining due to the proximity to the service yards of West Ealing's takeaway units.

CORNER INFILL SITES - ENHANCING CHARACTER

Several small corner sites have already been identified by landowners across the borough and have been developed with new homes. The sites range in scale and aspect and initial review raises a number of considerations, such as:

- Building line and how this relates to the road layout. Particularly if the corner is heavily trafficked
- The context of previous buildings on a site and how new development impacts upon the townscape
- The mix of uses, particularly in central locations
- The 'reading' of a building, whereby apartment blocks can 'read' as terraces from street level
- Active frontage at ground level, particularly when in a central location
- Boundary treatments and clear delineation between public and private space

Aerial image of Willett Grove corner site under construction

1

Willett Grove in Acton provides three storey, staggered terrace town houses on a small corner site. The scale of the building and the materials relate well to the context. Front doors and windows address the street.

2

Northfield Avenue provides a three and four storey block that reads as a staggered terrace from the street. Front doors open to the street and the scale relates to the surrounding area. Landscape investment has been made in communal space in front of the block.

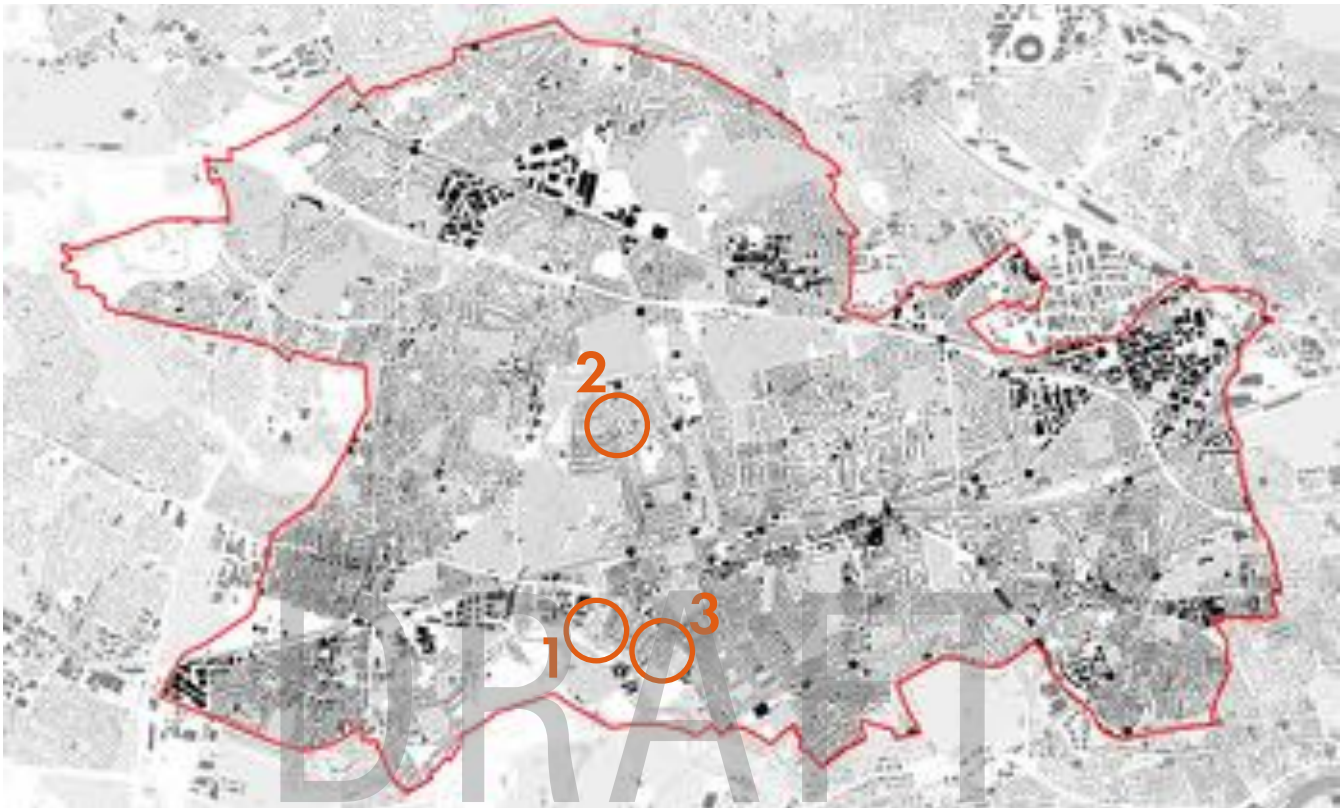
3

At the Greenford central crossroads, the Red Lion pub and generous forecourt has been replaced with a five storey apartment block. The building is not significantly out of scale with the surroundings and an active use is provided in the corner ground floor unit. However, the building line is close to the crossroads giving limited outdoor space and compromising the outdoor seating for the cafe.

GARAGE AND 'LEFT OVER SPACE' INFILL SITES - RESPONDING TO CHARACTER

Garage areas can provide valuable sites for new homes in what is currently unused or underused space. Three examples of this are found in Hanwell. Two of these are garage sites, either behind shops or associated with a housing estate; and one makes use of left over land next to an allotment site. Key considerations include:

- Scale and massing in what are sometimes small and awkward sites
- Careful building configuration to make best use of land
- Frontage relationships on sites that may not 'stitch' into the typical local structure of frontages
- Outdoor amenity space and careful provision for parking on what can be squeezed sites



1

Green Lane in Hanwell has four three-storey terraced family homes in a courtyard setting, with mews style frontages. They provide an attractive setting and make good use of the site for family homes but are dominated by garage doors on the primary facades.

2

Bordars Walk in north Hanwell has seen the insertion of temporary housing for homeless people in place of unused garages. This is a very efficient use of space, with cost-efficient buildings that match the scale of the surrounding area.

3

At Lambourne Close south Hanwell, a similar intervention is planned whereby unused garages are replaced with temporary housing for homeless people, with modular homes being relocated from Southwark.

SPINE ROUTE INTENSIFICATION: CANALS AND ROAD ARTERIES

A process of intensification along vehicular spines such as the A40 (Western Avenue) and the A4020 (Uxbridge Road) is well established within the borough. This provides an opportunity for higher density living in areas in which the immediate setting is not as sensitive to such intensification. However, design considerations include:

- The potential for a focus on private vehicles as the primary means of transport for new residents
- Air quality issues and noise issues - both of which could be in part addressed by a shift to electric vehicles
- Integration with surrounding neighbourhoods and general walkability levels
- The approach to frontages onto a busy road

Intensification is also taking place along the Grand Union Canal at Greenford, reflecting the approach being developed for Old Oak Common further east.

1 Greenford Quays responds to the Grand Union Canal and significantly increases density levels in the local area.

2 High density development by Middlesex Hospital along the Uxbridge Road creates an internal environment but does not relate to neighbourhoods nearby

3 Spine intensification along the A40 on the Ealing border, with homes that turn away from the busy road, avoiding both windows and doors along the main road. Front doors are provided from side roads.

4 New homes under construction along the A40, with windows onto the busy road, but access from side roads. Neighbourhood relationships are very much to the south, with the A40 severing links to the north.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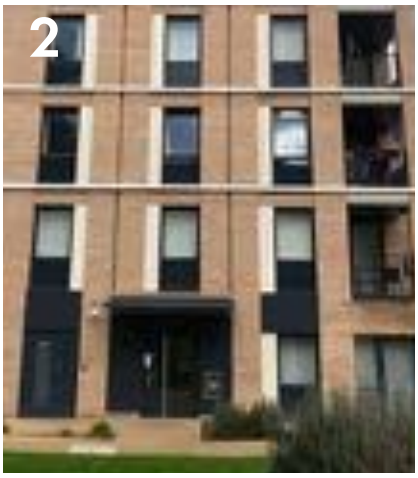
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