



EASTFIELDS

Urban Design Review

Sue McGlynn Urban Design Ltd

This document was produced by Sue McGlynn Urban Design Ltd for Circle Housing Merton
Priority. Released February 2015. All graphics and images produced by Clare Baker and
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About the project

Background | About the study area | Testing the case for regeneration

Background

In 2010 the London Borough of Merton transferred all of its housing stock to Circle Housing Merton Priory following a successful ballot of tenants. Some 9,500 former council homes were transferred, including the Eastfields estate in Mitcham.

The Transfer Agreement included a requirement that Circle Housing Merton Priory bring all the transferred homes up the Merton Standard, effectively 'Decent Homes Standard' improvements plus some locally agreed enhancements. The Agreement required that all these works be completed by December 2015.

The Merton Standard works are well advanced across Merton, with over two thirds of the improvement works completed. However in

preparing the plans for the delivery of the works to the outstanding homes, Circle Housing Merton Priory have come to doubt the value for money case of investing in what are, in some instances, homes and neighbourhoods of a very poor standard. As a result Circle Housing Merton Priory is currently exploring regeneration-based alternatives for three specific estates, including the 466 home Eastfields estate.

Circle Housing Merton Priory see two main options:

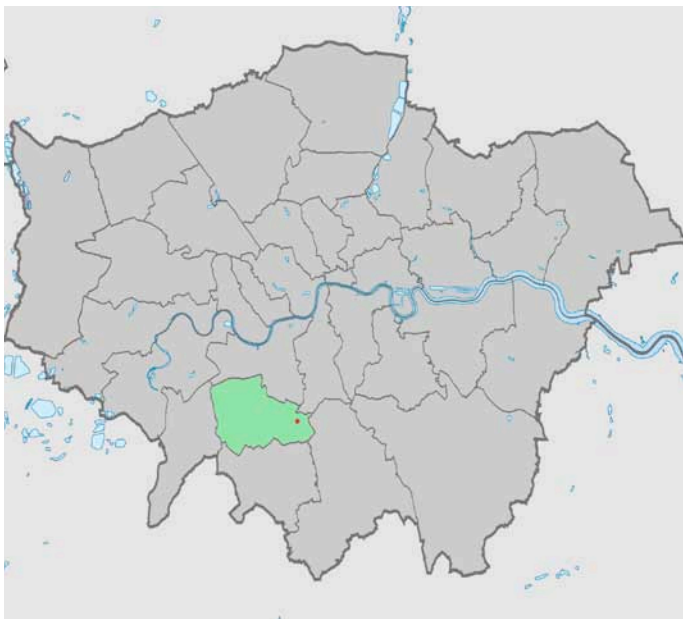
1. The continuation of the Merton Standard works as originally planned
2. The complete regeneration of Eastfields including the demolition of the 466 homes and their replacement with circa 650 new homes.

About the study area

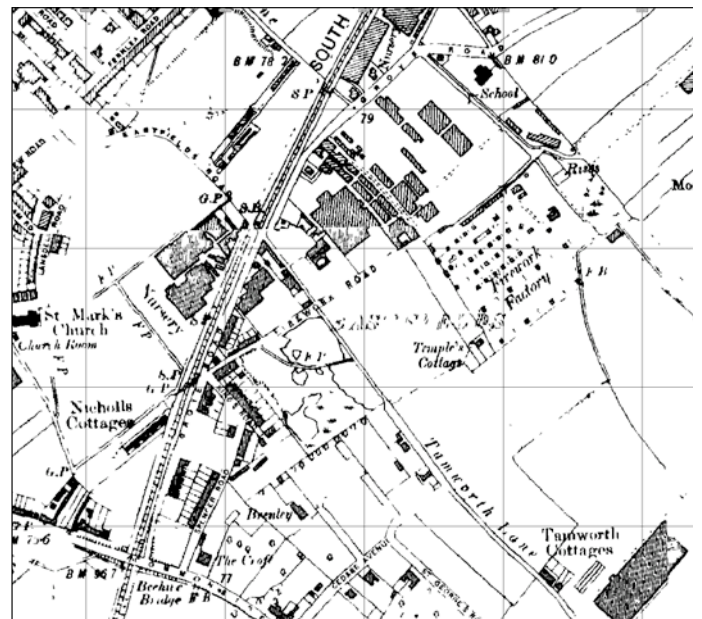
Eastfields is located in Mitcham, towards the south east of the London Borough of Merton. Mitcham and this part of the Borough are predominantly suburban in character with 1,2 and 3 storey houses mainly of the post-war period. The estate is approximately 1 kilometre east of Mitcham Town Centre and about 400m south-east of Mitcham Eastfields station. Immediately to the north of the estate are two schools; a secondary school, the St

Mark's Church of England Academy and the Lonesome Primary School. The western boundary adjoins the rear gardens of houses in Hammond Avenue, while to the south and east the site is surrounded by the South London Crematorium.

From the early 20th century the site was occupied by Pain's Firework factory and in the early 1970s was redeveloped as the Eastfields Estate to a design by Richard MacCormac.



Above: Merton in the wider London context: Map showing the location of Merton and Eastfields in relation to the city.



Above: Pain's firework site, Mitcham. Source: Ordnance Survey 1914

Testing the case for regeneration

As part of their regeneration plans for Eastfields, Circle Housing Merton Priory is continuing to build up a 'layered' approach to the evidential case for comprehensive regeneration, including assessment of building condition and viability of regeneration options.

Another layer in the evidential case will be to examine the quality of the built environment within Eastfields, with particular reference to

permeability and access; usable private and communal open space; densities; adjacencies and overlooking of spaces. This will require a comprehensive and impartial review of the existing Eastfields estate from an urban design perspective.

In January 2015 Circle Housing Merton Priory commissioned Sue McGlynn Urban Design Ltd to carry out the review.



Above: View of Eastfields Estate
Image: Google Earth.



About the Review

Process | Methods

Process

This study sets out to evaluate Eastfields against the established principles of good design.

The National Planning Policy Framework and National Planning Practice Guidance on Design endorse the principles set out in a number of previous documents, such as the *Urban Design Compendium*, *Safer Places: The planning system and crime prevention*, *Manual for*

Streets 1&2, *The Mayor's London Plan (chapter 7)*, and older documents such as *By Design*.

A comprehensive commentary on better design can be found in Circle Housing's own publication *Design Guide for Development Use*.

The National Planning Policy Framework (para.58) defines well-designed places as places that:

- will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;
- establish a strong sense of place, using streetscapes and buildings to create attractive and comfortable places to live, work and visit;
- optimise the potential of the site to accommodate development, create and sustain an appropriate mix of uses (including incorporation of green and other public space as part of developments) and support local facilities and transport networks;
- respond to local character and history, and reflect the identity of local surroundings and materials, while not preventing or discouraging appropriate innovation;
- create safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion; and
- are visually attractive as a result of good architecture and appropriate landscaping.

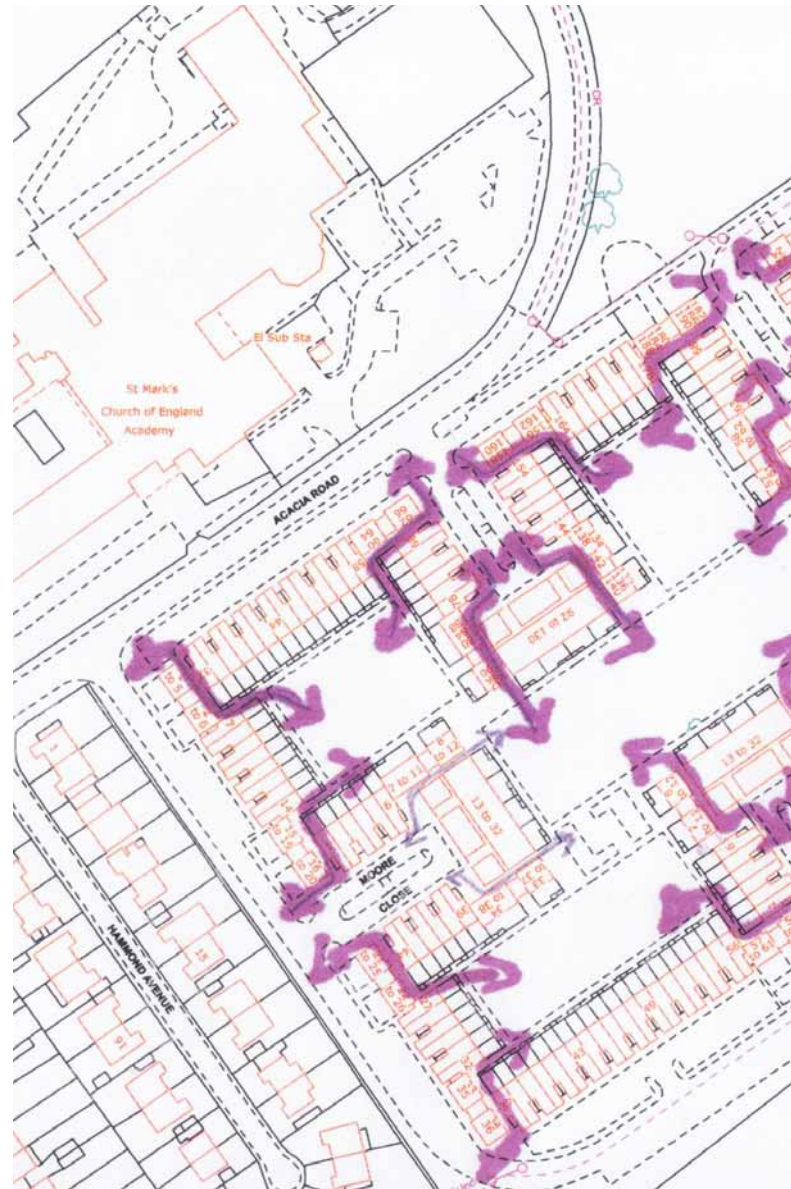
Methods

The review involved an assessment of the elements of the built environment of Eastfields identified in Circle Housing Merton Priory's brief. These are:

- Urban structure and access
- Building layout and alignment in relation to routes
- Façades and their interfaces with public spaces
- Height and massing
- Density and mix
- Building, landscape and public realm quality

A number of key measures were used to evaluate these elements and their performance in relation to current best practice urban design principles and policy:

- Relative integration of the estate with its surrounding area, using techniques developed by Space Syntax Ltd;
- Building position relative to routes to reveal the degree of definition of public and private spaces, using 'figure ground' analysis;
- The extent to which buildings provide active frontage to all public routes for safety, surveillance and sociability, by mapping 'active', 'passive' and 'dead' frontage;
- Safety and perceptions of safety in public and communal space using 'intervisibility' mapping;
- Photographic survey of buildings, landscape, streetscape and open space quality.





In addition, simple mapping and recording of other characteristics of the estate were compiled with a combination of on-site observation and use of secondary sources where data already exists. These are credited in the report where used.

The commission took place over 4 weeks in January 2015. The surveys were carried out during weekdays and during working hours so no assessment has been made of the night-time experience of Eastfields, such as lighting levels or parking.

The report is in three sections dealing with the main themes of analysis:

1. Urban structure
2. Layout
3. Quality of the external environment

Each section of the report provides an explanation of the methods used, an account of the analysis, followed by conclusions and key findings.

At the end of the report, the overall performance of Eastfields is summarized against the Building for Life 12 criteria, the Government and industry endorsed assessment method for residential development.



Review themes

Urban structure | Layout | Quality of the external environment

Urban structure

Urban structure is an important spatial measure of social inclusion or exclusion and therefore a significant factor in deciding whether to refurbish or regenerate Eastfields.

One of the defining characteristics of many 19th and 20th century urban social housing is that 'the estate' is differentiated from its immediate surroundings in an attempt to create a defined and often bounded community, frequently reinforced with innovative design, construction and materials. This is in direct contrast to the open, connected and street-based neighbourhoods of previous centuries.

At Eastfields, the site itself is separated from its surroundings by the railway line, the school grounds to the north and the extensive South London Crematorium to the south and east. In addition to this physical isolation the uncompromising design of the estate's layout, buildings and massing set it further apart from the character of its surroundings.

This review of the estate from an urban design point of view does not attempt to make aesthetic or value judgements on the architectural style of Eastfields. Instead

it concentrates on the physical, spatial and environmental impacts of the design on its users.

This section evaluates two aspects of Eastfields' urban structure, integration and connectivity. Each aspect is considered at two scales – the wider context within which Eastfields is set and the immediate surroundings of the estate.

Integration: Assessing the 'depth' of Eastfields relative to the wider area of south-west London and to its locality. This is an important measure of the extent to which residents have access to public transport and all the other opportunities that living in a capital city offer. Accessibility at this scale is often a significant indicator of life chances and residential value.

Connectivity: Assessing the relative interconnectedness of routes around and within the estate. This type of analysis reveals the nature of pedestrian access and the ease, convenience and safety of moving around the immediate neighbourhood. Accessibility at this scale is often a significant indicator of legibility and perceived safety of routes in the locality.



Above: A fully connected 'deformed grid' in the Merton district.



Above: A 'Radburn' layout in Grove Hill, Hemel Hempstead, with segregated routes and a confused building arrangement.

Space Syntax

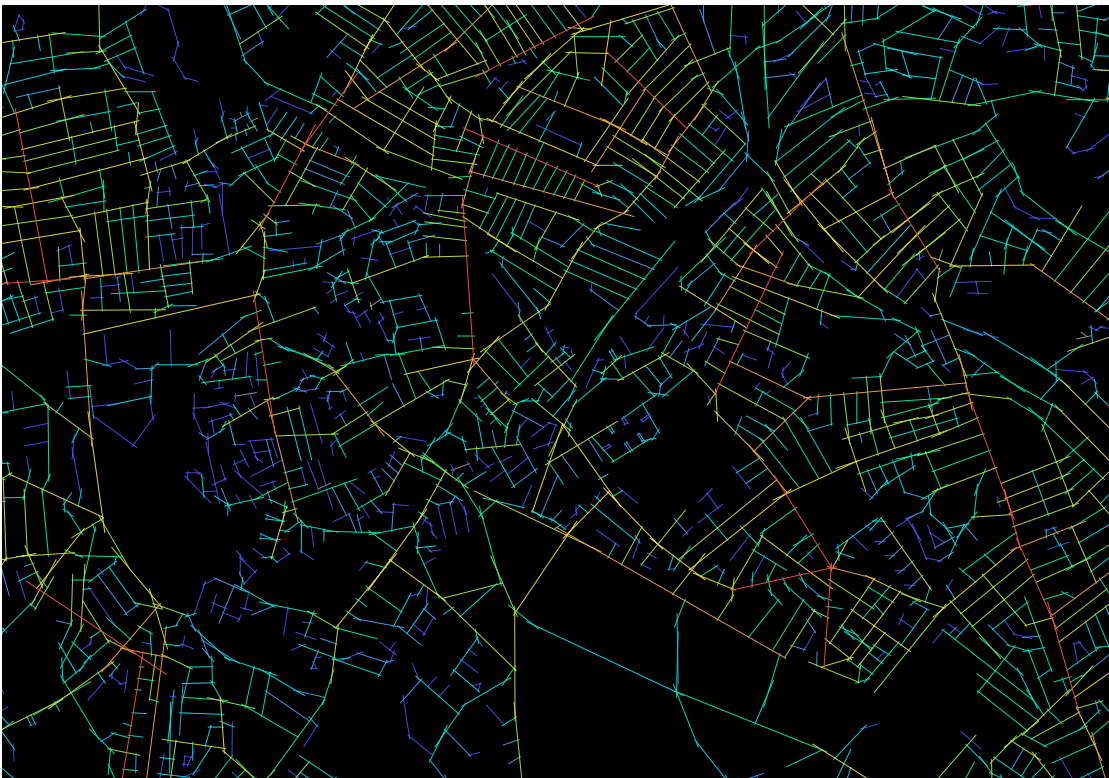
We have used Space Syntax theory and its techniques of analysis to measure Eastfields' level of integration and connectivity. The study area for the analysis was defined by bounding features such as railways, rivers, major routes and open spaces and encompasses most of the district of Merton.

Research since the 1970s by Bill Hillier and his colleagues at The Space Syntax Laboratory, University College London has led to a fundamental understanding of the relationship between spatial design and the use of space, the emergence of land uses and longer-term social outcomes.

Analysis of connected street systems reveals a structure of a few long straight lines that form the main settlement-wide movement routes.

The remainder, the more numerous and shorter lines, represent the more local movement system. These are the quieter streets that carry less movement but are still connected to the wider movement network.

In the hierarchical movement systems introduced from the 1950s onwards, the pattern of development is very different, with pedestrians frequently segregated from vehicular movement at the local level. The very ends of the movement system are the culs-de-sac so familiar from the 1960s onwards in both public and private sector housing development. This has frequently resulted in pedestrian paths that are routed along the backs of property with little or no surveillance, that are less direct and legible and have a very low quality of walking experience.



The wider Merton context in 'axial line' form, showing routes open to all modes of transport and coloured for integration.

Recent design guidance has recognized that we need streets that are designed for all modes of movement to be integrated within the same space; streets that are convenient for vehicular movement but are also safe, convenient and attractive for walking and cycling at a local scale (Manual for Streets 1 and 2, Building for Life 12).

Hillier et al's Space Syntax approach uses a number of geometric measures to represent the relative connectivity of the 'segments' of public space, defined by drawing lines, called 'axial lines', through the system being analysed.

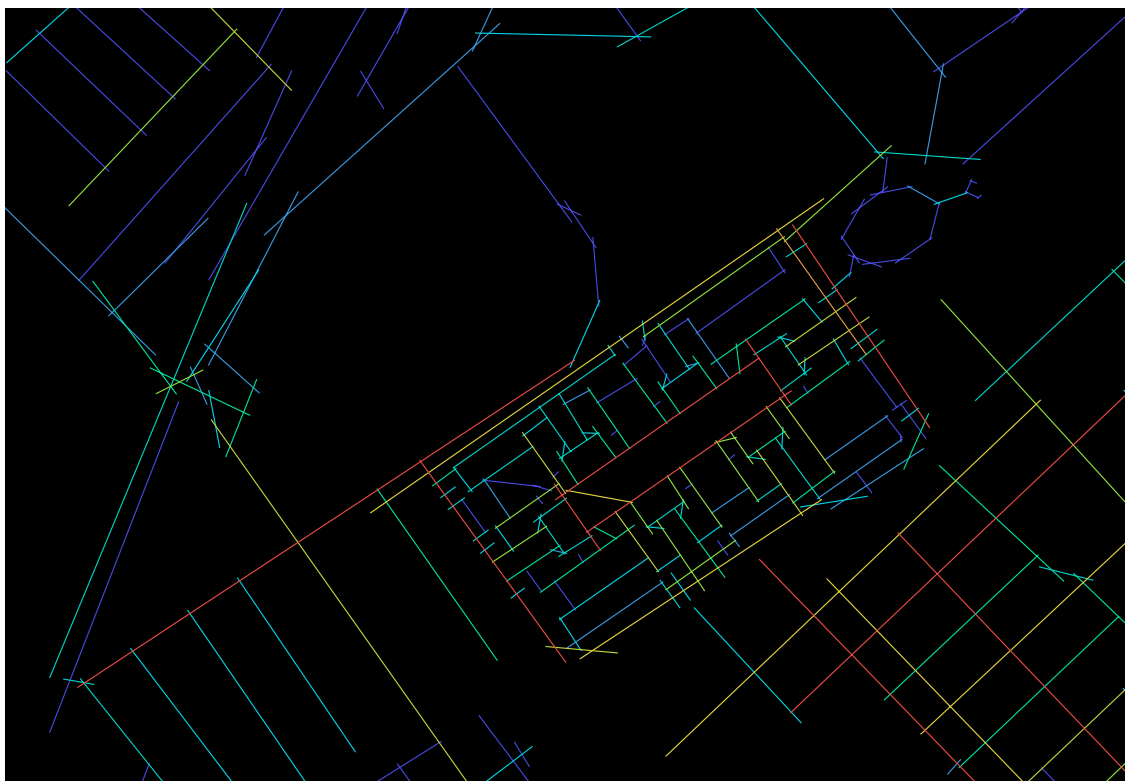
These studies show that the movement intensity along any line segment – that is, any length of line with an unobstructed view from one end to the other – depends on the segment's pattern

of connections to all the other segments in a given area around it.

Segment length depends on the bendiness of the corridor with the longest segments tending naturally to pick up the largest number of connections.

The most intensive movement will flow along these straightest, most-connected segments (in hotter colours in the diagram), while the shortest, least-connected segments will be quietest; as shown by the cooler colours.

The geometry of a layout has a pronounced effect on actual and perceived connectivity and legibility as well as actual and perceived levels of safety.



Eastfields in axial line form for pedestrian-accessible routes, analysed for integration.








Wider context: accessibility

Eastfields is approximately 400m to the south-east of Mitcham Eastfields Station and is also well-served by bus services in the surrounding streets, Tamworth Lane and Grove Road. Other stations are accessible from the estate as shown on the diagram. Mitcham town centre is the nearest retail and service centre but this is 1 kilometre to the north-west and so beyond walking distance for most people. Eastfields falls within an area with a Public Transport Accessibility Level (PTAL) of 2, defined as 'poor' by The London Plan.

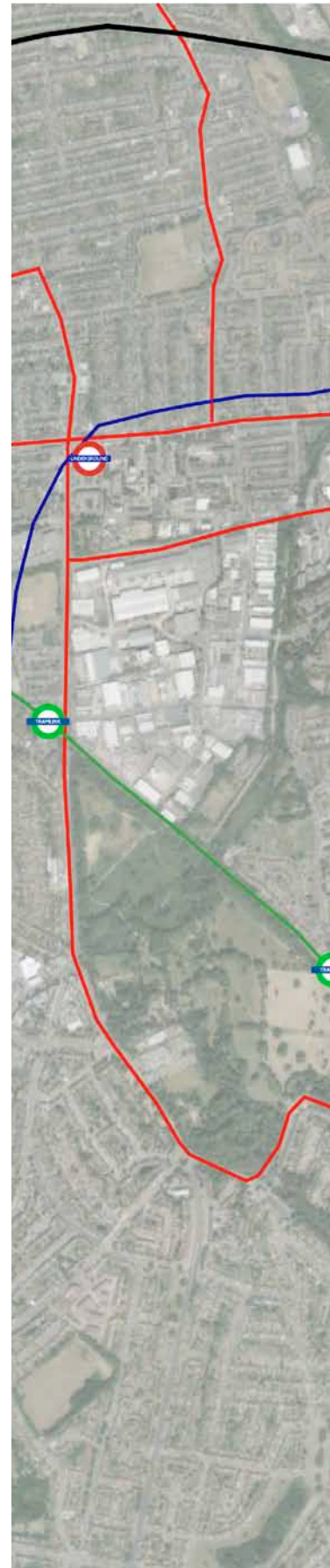
This rating reflects the peripheral location of Mitcham within the Greater London area and is compounded by the relative isolation of Eastfields from its immediate surroundings. The PTAL score is used as an initial basis for determining housing density and parking ratios as defined in the London Plan and so has implications should the decision to regenerate Eastfields be taken. Generally, the higher the score, the higher the housing density with significantly reduced car parking levels. In lower PTAL areas, such as at Eastfields, dense flatted development is unlikely to be acceptable and parking levels need to reflect the relevant London Plan or local authority standards compatible with the likely car ownership levels.

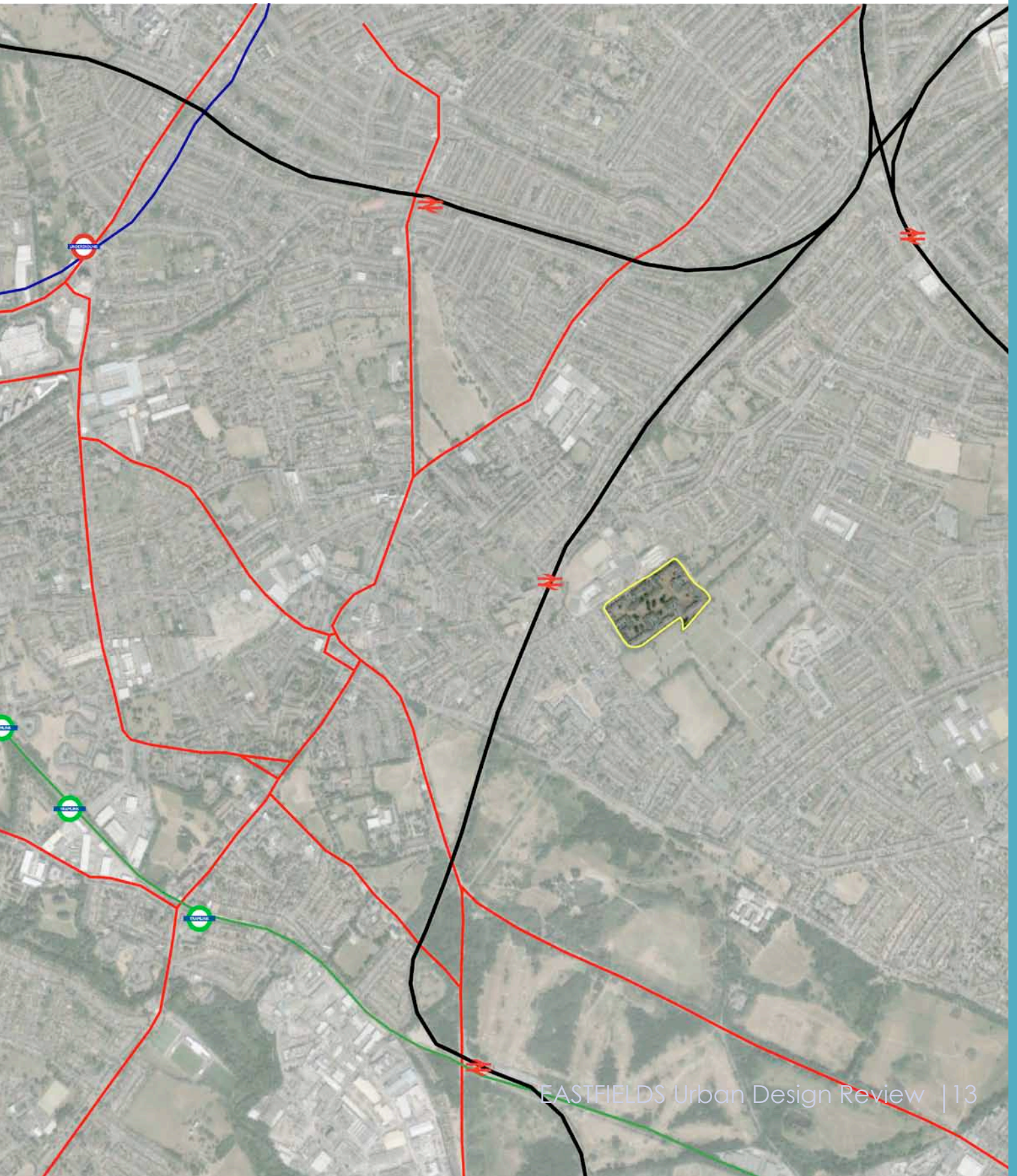
Accessibility is well-documented in transport and planning policy documents. A summary diagram of accessibility is included here.

Key:

-  National rail
-  Underground
-  Tram stop
-  Underground rail line
-  Overground railway line
-  Strategic route
-  Tram line

Right: Major access and movement infrastructure for Eastfields and surroundings.





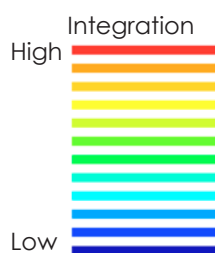
Wider context: Integration analysis R8

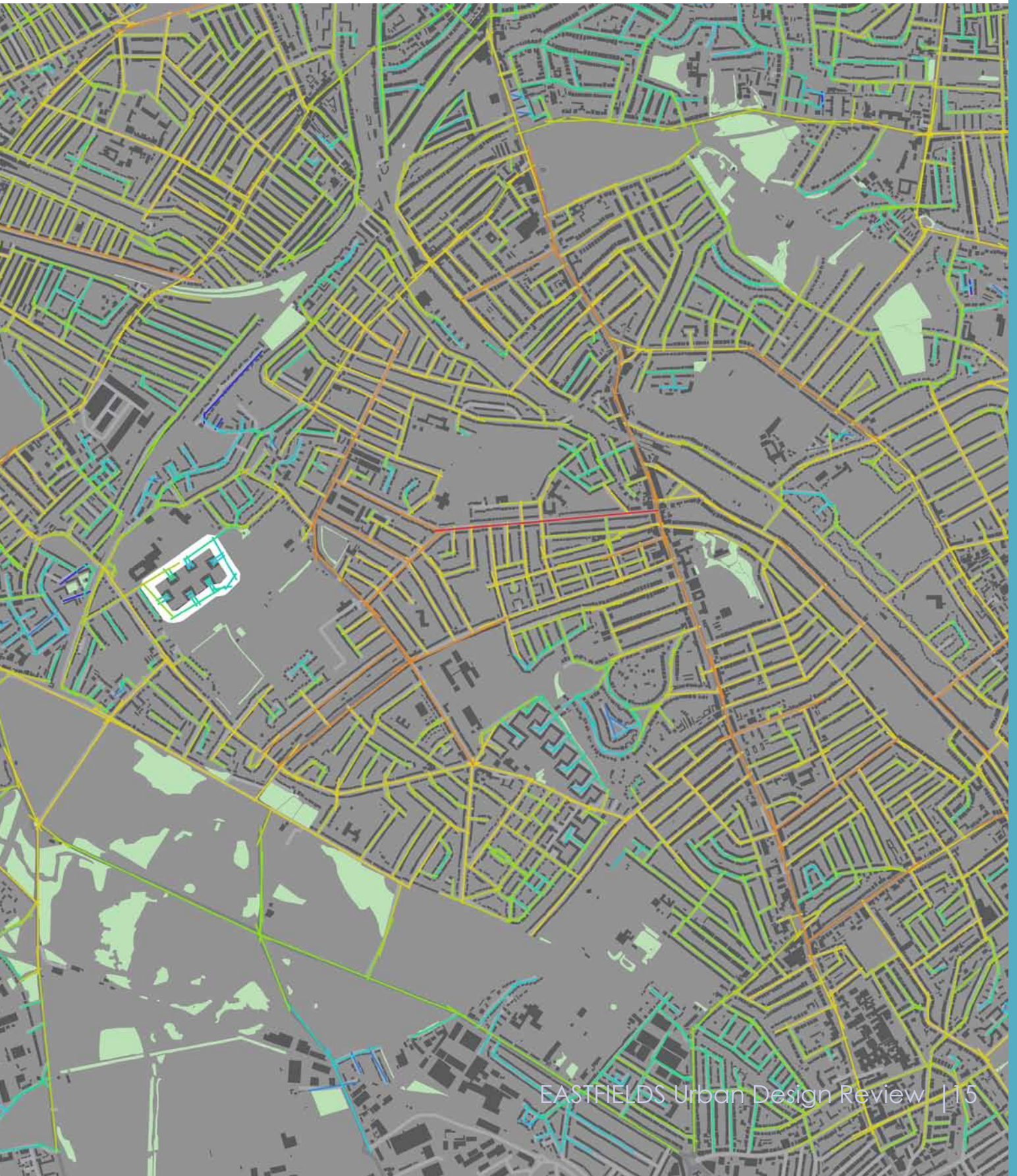
Using the Space Syntax 'Depthmap' software, here we perform graph analysis on an 'axial map' of the study area of wider Merton.

Integration is a measure of the average depth of a space to all other spaces in the system. The spaces of a system can be ranked from the most integrated to the most segregated. The software applies a relative colour scheme to help show a route's level of integration, with the most integrated routes appearing in warm colours (red, orange yellow) and the most segregated routes showing in cooler colours (greens, blues, purples). As such, integration analysis is a measure of 'depth' in the system.

As Eastfields is embedded within a large city it cannot be analysed as a closed system. 'R8' is used here to help routes near the edge of the area modelled from showing as overly 'cool' when in effect they are just located at the edge of the study area.

Although accessibility has been improved by opening the new station, Eastfields is located in a relatively isolated part of the Borough. This is due to the number of barriers that cut the site off from its surrounding area - to the north the railway line and grounds of the two schools, to the south and east the extensive area of the South London Crematorium and further south the extensive Mitcham Common and golf course.



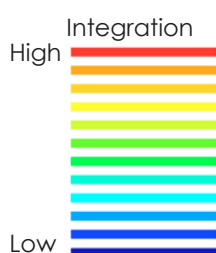


Wider context: Integration analysis R3

As before, integration analysis is useful as a measure of 'depth' in the system. Here we change the analysis to R3 as this is an important consideration for assessing the walkability of a movement system. Radius 3 has been shown to be a 'tipping point' for modal choice; areas deeper than R3 within a system show a marked shift towards motorised travel, likely because routes become unnecessarily indirect and complicated.

Looking at the diagram we can see a contrasting pattern has emerged, with warmer lines in the gridded streets to the north and east of Eastfields and cooler ones to the west and south. These blue areas appear more as enclaves, walkable internally but separated from their surroundings. The R3 analysis reveals another significant issue. Where cool areas become as extensive as shown here there is a more than local, cumulative effect. The repetition of segregated enclaves over time begins to erode the integration of the whole wider area.

The challenge for every new development in the Borough therefore is to make a small but potentially significant improvement in integration, particularly when situated in an already relatively isolated location such as Eastfields.





Wider context: Comparing integration at different R values



As the diagram shows, even at R8 Eastfields is relatively 'deep' from the most integrated routes ie the strategic movement routes that provide access to the wider area of south London. The routes to and around the estate itself are all showing as cool colours (green, blue and deep blue), with only Tamworth Lane

immediately west of the estate coloured yellow in the mid-range of integration. This highlights its significance in connecting Eastfields to the transport and town centre facilities of Mitcham as it is the only vehicular route nearby that crosses the railway line.



At R3, the 'depth' of the estate becomes more pronounced, with few areas showing 'warm' within the immediate vicinity of the site. The site is particularly 'deep' to the facilities in Mitcham centre for walking and cycling. The importance of London Road and Church Road (red) for integrating the area as a whole can be seen more clearly here above too, although neither offer a pedestrian or cycle freindly user experience.

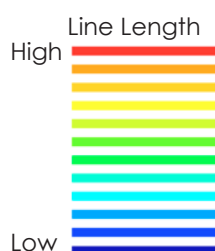
This analysis demonstrates that Eastfields is poorly integrated into the wider area of Mitcham and beyond. The relatively isolated nature of the estate cannot be significantly improved. However, this sets up an important design challenge at the site level and this will be discussed in the analysis of the local context in the next section.

Wider context: line length across the study area

The final analysis undertaken looks at the length of the axial lines in the study area. Line lengths can be used as a proxy for intelligibility. Longer sight (warm) lines allow you to see further ahead on your journey, identify possible junctions and route options and assess alternatives in terms of direction and convenience. This is an important feature of movement networks as it allows us to move confidently even in unfamiliar places as we are able to judge which routes are part of the overall movement system and which give access only to more local areas. By contrast, short (cool) lines with frequent changes of direction mean it is difficult to understand at ground level how one route relates to another and whether the route you are will take you in the right direction.

The analysis (right) reveals a very high number of 'cool' lines in the whole study area. This confirms observation on the ground that the relatively small number of longer, warmer-coloured lines identify historic routes, such as London Road, Commonside East, or those dating from the 19th and early- to mid- 20th century periods of suburban development, such as Helmsdale Road, Tamworth Lane and Stanford Road.

By contrast the short lines are seen almost exclusively in the later 20th housing developments in this part of the Borough, reflecting the radically different attitude to movement and connection introduced by highways and planning practice from the 1950s onwards. The repetition of this kind of enclave development over time will reduce the intelligibility and walkability of the whole district.



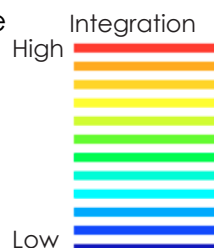


Local context: Integration analysis R3

The analysis of the wider context has shown that Eastfields is located in a relatively isolated part of the Borough. On average, it is necessary to travel through at least 5 axial deflections/ changes of direction to reach a warm line segment from Eastfields. This is largely dictated by the nature of the surroundings which contain many barriers to movement. On the one hand this creates a quiet residential environment but on the other hand restricts movement options for residents and is likely to encourage more trips to be taken by car.

Moving to the site in more detail, we can see that low levels of integration are apparent here too. For instance, to the south, the nearest hottest routes are the 'orange' lines of Manor and Northborough Roads. These routes are cut off from Eastfields by the large area of the Crematorium and, although there are many pedestrian paths running through it, the whole area is necessarily surrounded by security fencing. It therefore provides a positive open aspect for residents but restricts access to better -integrated routes beyond.

The R3 analysis of the local context reveals that the design of the estate itself generates a curious pattern of connection that is the inverse of nearby older residential developments. As would be expected, the warmest lines are Acacia Road and the western and eastern sections of the perimeter road. However, the other 'hot' lines are the internal routes of the communal courtyard that run through the more private spaces of the estate. This sets up a pattern whereby the most integrated spaces for pedestrian movement around the estate itself are inside the block. However, these can only be accessed via the least integrated lines – the alleyways shown as the coolest lines in the diagram.





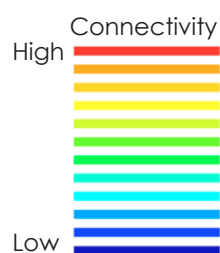
Local context: Connectivity analysis

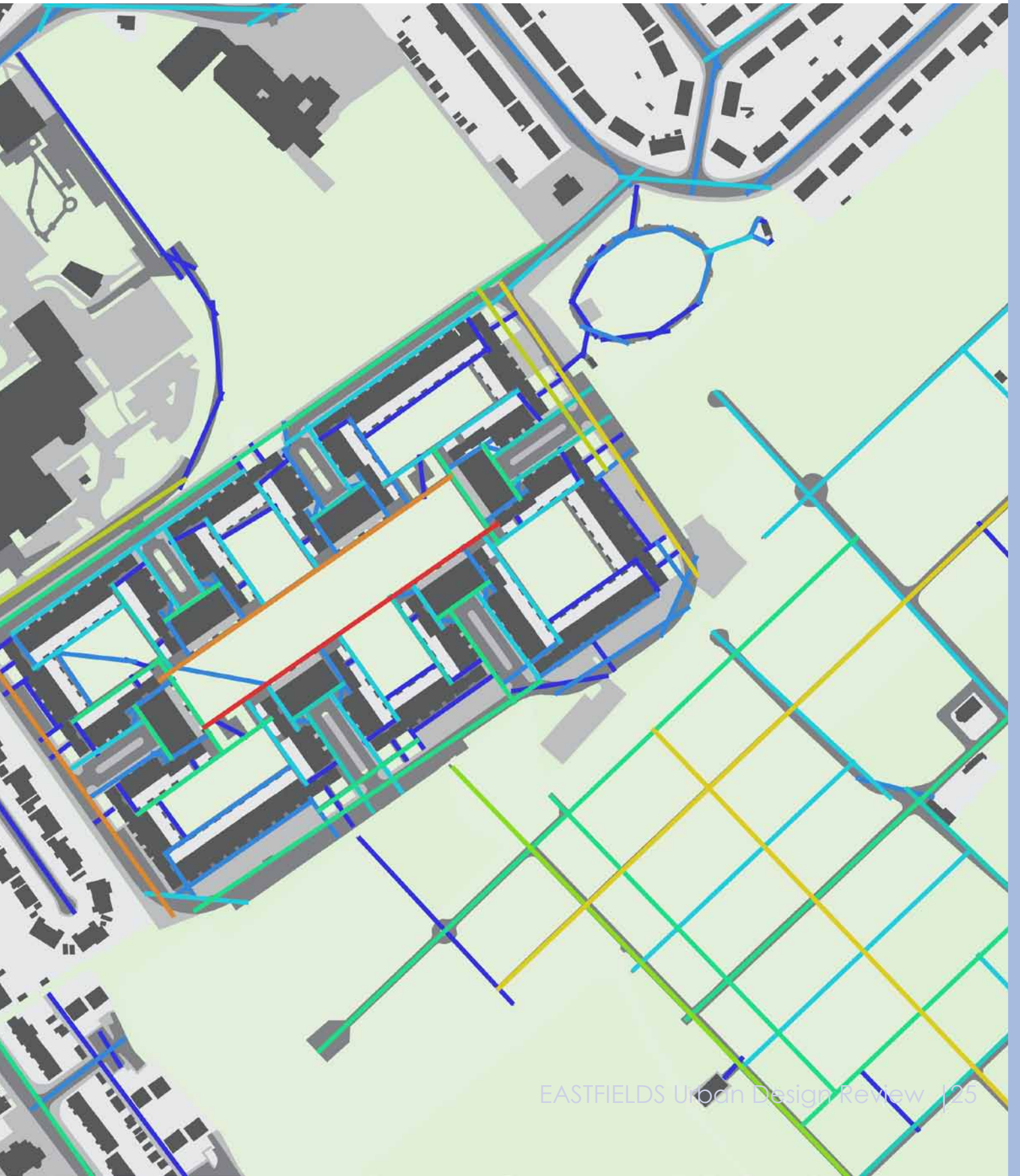
Connectivity can be used as a proxy for the intelligibility of a layout. The ability to understand how the route you are on is connected to other routes has been shown to be a key factor in developing a 'picture' of an overall system. Poorly connected routes give little information about an overall structure and make navigation more difficult, whereas highly visible, connected routes allow users to gather a great deal of information about the place they are in and whether they can move through it easily and without backtracking. Put simply, connectivity is a measure of the number of times a line in the model is connected onto other lines.

It is clear that the estate has a very high number of lines, particularly by comparison with older residential neighbourhoods. Most of these lines are in cool and cold colours and connect only internally to the estate. The analysis reveals that the estate:

- Is poorly connected to its local area
- Is over-connected internally due to the very large number of routes into the central communal space;
- Has its hottest lines on the inside of the block

It is interesting to compare the connections of Eastfields' internal pedestrian routes with those of the Crematorium. Crematoria are laid out primarily with pedestrian movement in mind. The diagram illustrates a simpler movement grid of a coarser grain that enable ease of movement and legibility within the Crematorium.





Urban structure summary

The design of routes at the estate level creates the worst of all possible worlds by contributing further layers of segregated space in a location that is already poorly integrated with the wider movement system. Regeneration of the estate would provide an opportunity to redress this problem.

1. Although accessibility has been improved by opening the new station, Eastfields is located in a relatively isolated part of the Borough, as reflected in its PTAL classification of 'poor' (2).
2. Eastfields as a location is relatively 'deep' from the most integrated routes that provide access to the wider area of south - west London.
3. This relative isolation creates on the one hand a quiet residential neighbourhood but on the other hand restricts movement options for residents and is likely to encourage more trips to be taken by car.
4. There are extensive 'cool' areas in integration terms to the west and south of the estate and Mitcham town centre. These were found to co-incide with housing developments of the second half of the 20th century, reflecting a radically different attitude to the movement and connection of vehicles and pedestrians after the 1950s.
5. The repetition of segregated enclaves begins to erode the integration and walkability of the whole area over time.
6. At the estate scale of analysis, Eastfields generates an unusual pattern of connection that is the inverse of nearby older residential developments. It is over-connected due to the very large number of routes into the central communal space and, apart from sections of the perimeter roads, the most integrated spaces for pedestrian movement around the estate are inside the block.
7. The challenge for every new development in the Borough is to make a small but potentially significant improvement in integration, particularly where situated in an already relatively isolated location such as Eastfields.

Layout

The previous section analysed various aspects of the movement network in both the wider area and local to Eastfields. This section evaluates the layout of buildings on the estate and the way that they are oriented to the perimeter streets and to the internal pedestrian routes and open spaces.

The purpose of the analysis is to assess whether the building layout and facades provide the required level of surveillance and activity to animate the street and route hierarchy.

Three aspects are considered:

- Building layout
- Layout and perceptions of safety
- Building interfaces

Building layout

The following sequence of 'figure ground' diagrams illustrates the ways in which buildings define both public and private spaces. They compare the pattern seen in Eastfields with that of the surrounding area. A 'figure ground' plan highlights either the 'figure', ie the enclosed space of buildings or the 'ground', ie the 'unbuilt' open space in either public or private ownership.

The first 'figure ground' plan maps only the buildings in black. In some areas the street network is clearly visible and well-defined – even though only buildings are mapped. This is because in vernacular layouts there is usually a strong and consistent correlation between building alignment and the line of the street. This is particularly uniform in the residential developments pre-dating the 1950s, as can be seen for much of the area to the north, east and immediately south of the estate. However, the building layout at Eastfields appears almost as a castle or fortress and stands out strongly from the surrounding pattern, both in terms of the larger scale of the block itself as well as its distinctive and indented plan form.

Right: A 'figure ground' diagram of the wider Merton area, with Eastfields estate outlined in yellow. Note the uniformity of the older neighbourhoods to the North.



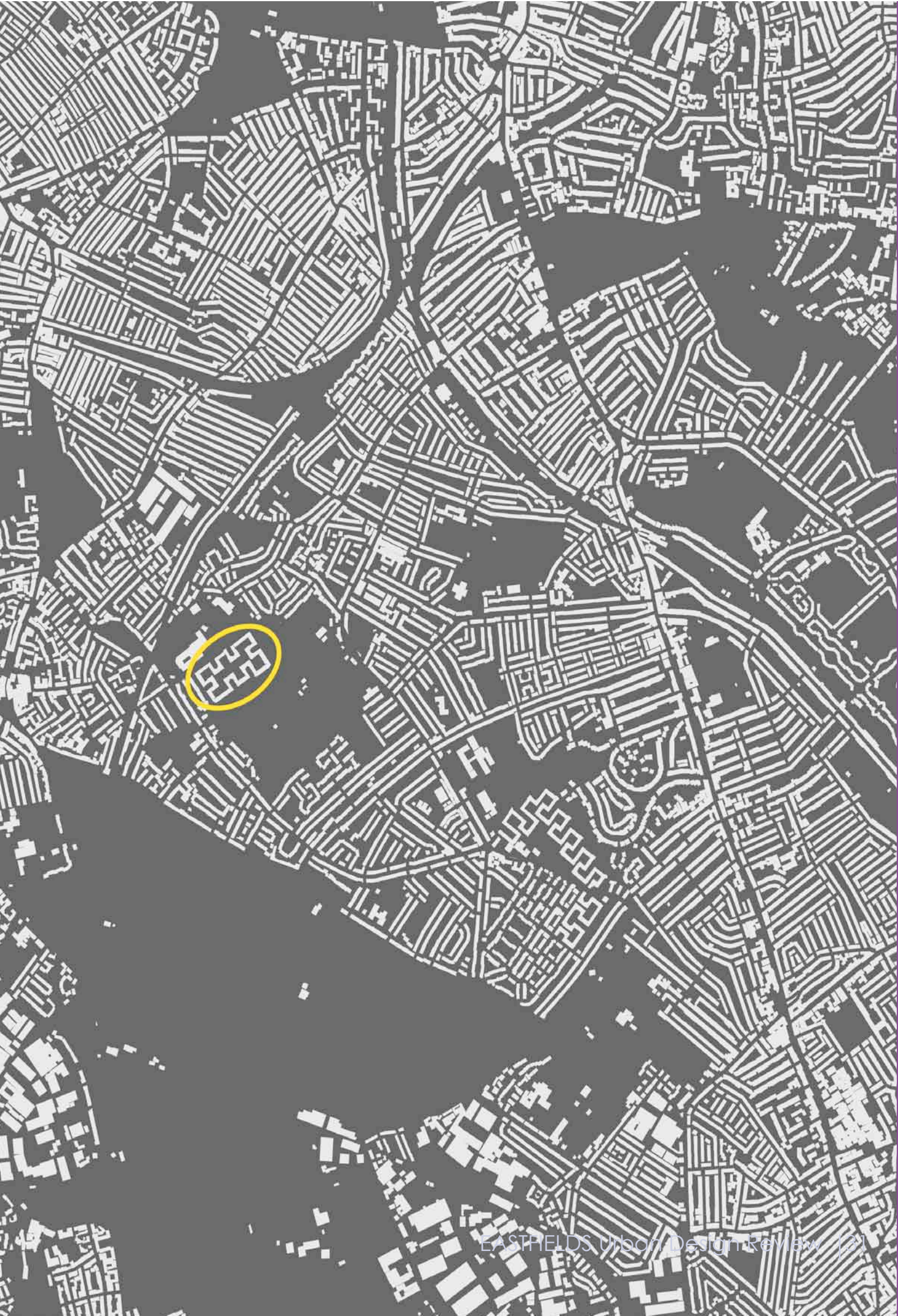


The second figure ground plan maps only the open space in black ie the 'unbuilt' space. Again, there is a strong contrast between the pattern that emerges in Eastfields and the older residential areas. Here, buildings are used to make very clear distinctions between the public space of the street or park and the private space of the home. This is enclosed within the protective wall of buildings – the form of development know as 'perimeter block' development.

Although the building layout at Eastfields is very different to those around it the relationship of private or communal space enclosed at the backs of buildings appears, at first sight, to be the same. However, as we have already seen in the previous section on connectivity, there are numerous routes that break through the perimeter buildings into the central space. The control over access to these internal spaces is therefore lost with the result that the distinction between what is public and what is private space is weakened. This problem has been acknowledged at some stage with the addition of gates to the alleyways, however at the time of the survey all these were open.

Right: Unbuilt space is revealed in this reverse of the normal 'figure ground' diagram and shows the very different pattern of built to unbuilt space at Eastfields.



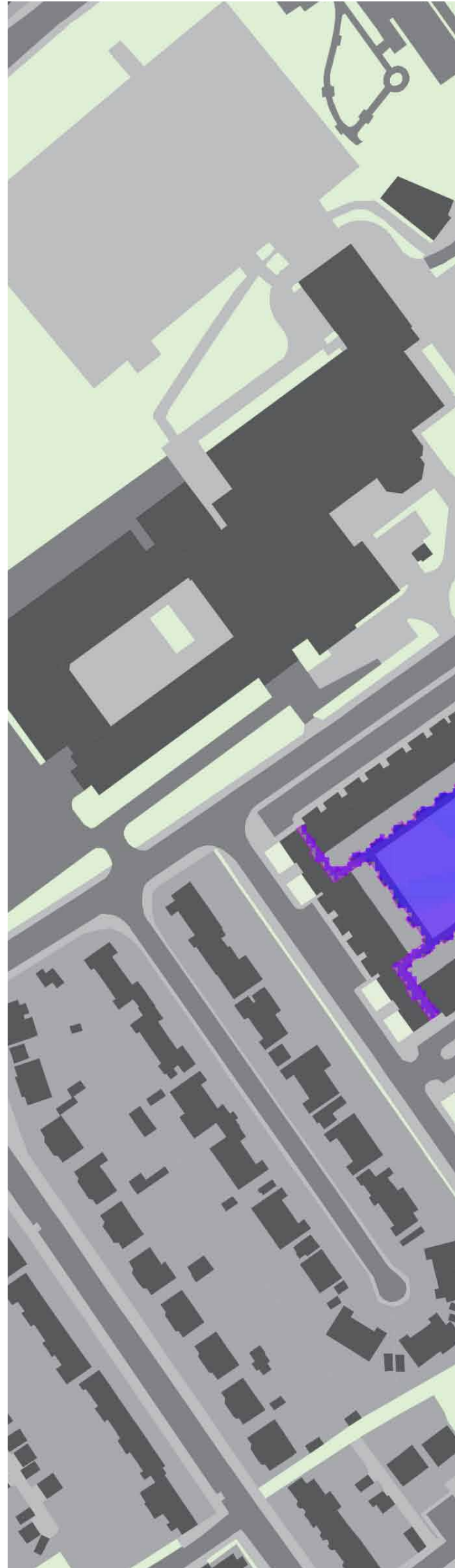
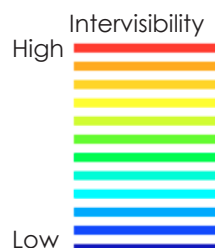


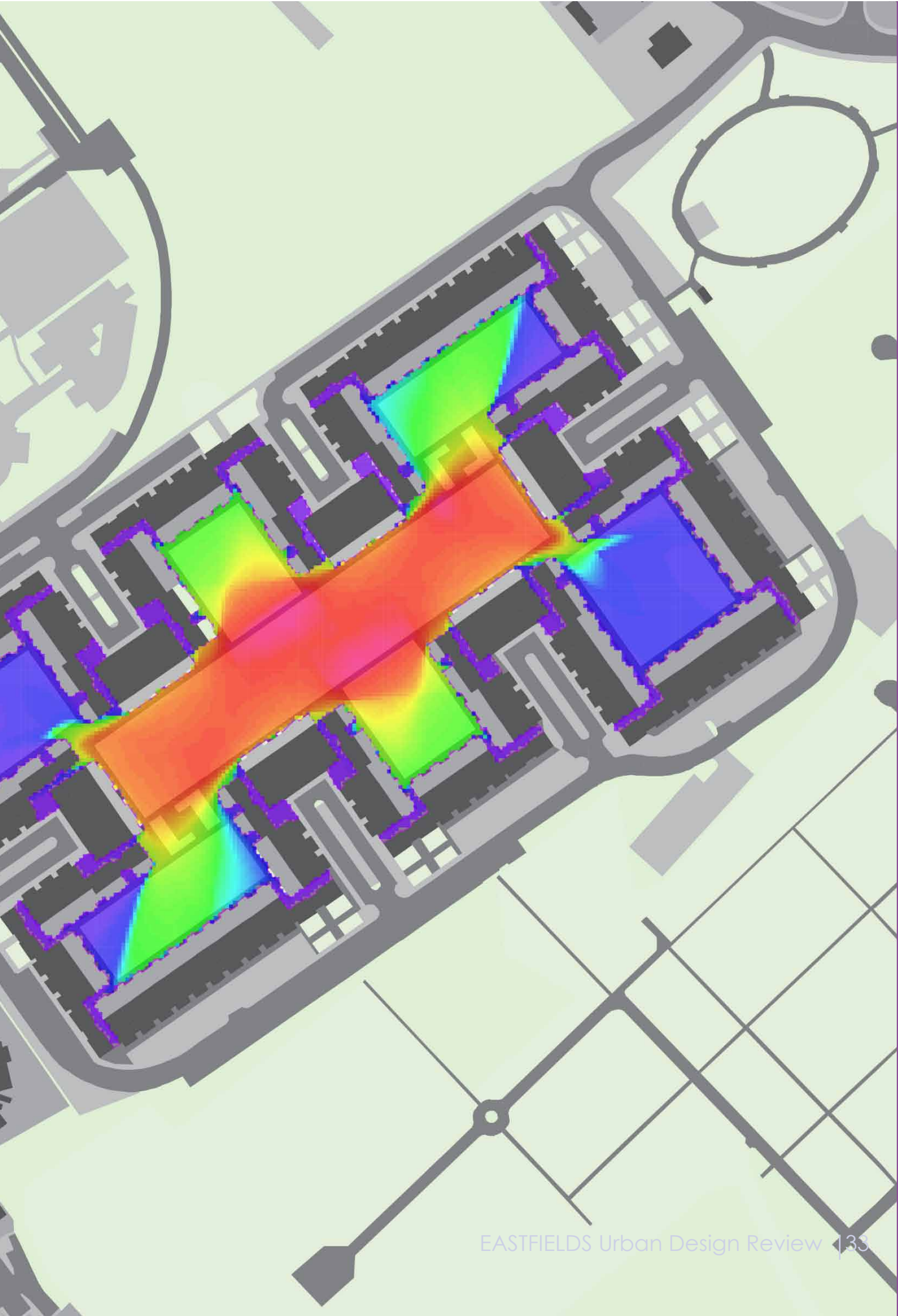
Layout and perception of safety

Intervisibility analysis measures how visually connected one space is from another within a defined area, whether within a building such as a museum, or external spaces such as courtyards and squares. It is a useful tool for indicating how well parts of a space will be used. In public spaces, the research shows that areas with less intervisibility correlate strongly with lower perceptions of safety, higher levels of antisocial behaviour and increases in other sorts of crime.

In conducting our analysis, we divided the interior courtyard space of Eastfields into a 1m² grid, to represent what would normally be considered a reasonable amount of personal space for a single person to occupy when mixing with strangers in a public space. Each of these grid squares is then ranked in order of how visible it is from all the other squares in the space, with warm colours representing units of space that are highly visually connected to others, and cool colours showing areas less well visually connected.

As the diagram shows, in plan the Eastfields interior courtyard space is 'concave', ie it contains areas that are not visible one from another whereas in a 'convex' space all areas are visible from all others. What emerges from this analysis is that the interior courtyard space of Eastfields is arranged in a way that generates distinct types of space with very different levels of intervisibility.



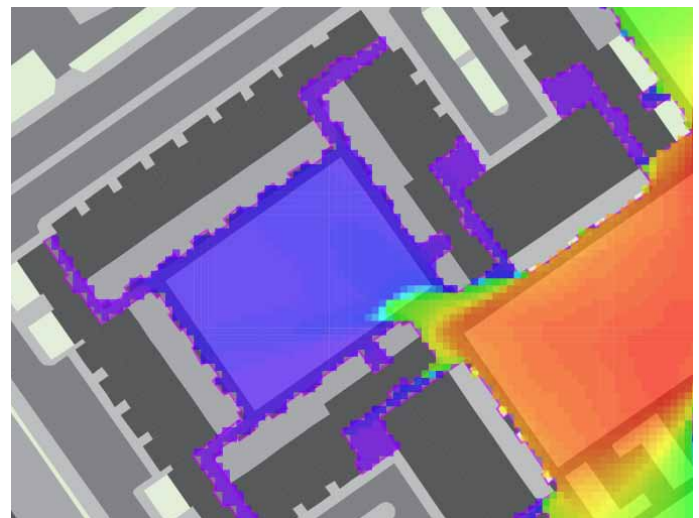
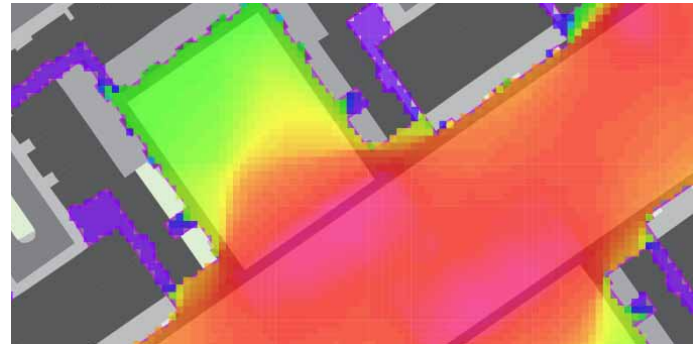


The large central space and those that connect at 90 degrees to its centre show a significantly higher rating for visual connectivity (right top) than the four spaces that make up the courtyards located at its corners (right bottom). The corner courtyards themselves are further differentiated, with the courtyards to the north east (NE) and south west (SW) corners better visually connected than those that make up the north west (NW) and south east (SE) corners. It is the aperture size that makes the difference; by having a deep plan combined with a narrow entrance, the NW and SE corners create large areas contained in 'shadow zones' that are visually disconnected except for a narrow view corridor that penetrates only a short distance into the space.

This is even more problematic as we have seen that the main connections to the outside world are accessed via Acacia Road at the north west of the estate. The most frequent and likely route for moving through the central space of the estate would therefore be in a diagonal line to the north-west corner and this is precisely the area with very poor intervisibility.

So far as we can ascertain during the timescale of this survey there is no particular crime problem associated with Eastfields. However, residents have noted the following issues in their responses to the London Borough of Merton's Issue and Options consultation:

- Limit access to the central open space to prevent anti-social behaviour (1 comment);



- Open spaces frequently vandalised: Ensure that this is not the case with new spaces (1);
- Install CCTV (1)
- Have a warden to patrol the estate (1)
- Remove alleyways to create a safer place
- Improve lighting in external areas/walkways (3)

These comments indicate that perceptions of safety during the day and particularly at night

are affected by the configuration of alleyways and hidden space in the courtyards.

In contrast to these, the NE and SW corners allow for a greater level of inter visibility, with larger areas visible from other spaces within the central courtyard. However, as the diagram shows, the corners of these spaces also suffer from high levels of disconnection, with areas that are hidden from view from the routes that cross the central space.

The spaces with the least intervisibility are the entrance alleyways that link the internal courtyard to the outside world. This is because they are located in corners where they are least visible from spaces within the courtyard and also from the spaces around the external perimeter of the buildings. This is made worse because the routes themselves are convoluted and deflected, so no clear sight lines exist. As a result these routes feel unsafe and are unpleasant to use. When accessing the alleyways, users pass into the least visually connected spaces within the whole estate and so have little feeling of safety and security.

This analysis indicates a structural problem with the arrangement of spaces on the estate. The narrow entrance alleyways are particularly problematic, and it is difficult to see how the problems uncovered in this study can be addressed without major structural changes to building layout, routes between buildings into the communal space and the configuration of the internal communal space itself.

Photos (top to bottom):

1. Alleyways with poor visibility. The gates fitted are left unlocked.
2. Barbed wire on a rear boundary, indicating fears around property security.
3. A fire damaged bin store, with melted light in an already vulnerable location.
4. Entrances and exits to the inner courtyard spaces are hidden from view.



Building interfaces: Active frontages to streets and routes

One of the most important features of 'perimeter block development' is that building fronts and entrances should be oriented to face the street. This sets up the mutually re-inforcing relationship of active and well-surveilled public spaces at the front of dwellings and private spaces away from public view at the rear. The importance of this relationship for creating safe, lively and sociable places is recognized in the National Planning Policy Framework and Planning policy Guidance on Design.

The logical extension of this is that all streets and pedestrian routes should be lined by the front of buildings rather than their sides and backs. The following sequence of diagrams adds a further layer to the analysis by indicating the position of building entrances and mapping the 'transparency' of building facades at ground floor level where they are adjacent to publicly-accessible space.

In the older residential areas this could usually be confined to the front of dwellings. However, at Eastfields buildings are surrounded by publicly-accessible routes and space so all facades have been mapped according to the following classifications:

- Active frontage is defined as facades that having both doors and windows of inhabited rooms (ie not bathrooms, storerooms, lobbies or garages) at regular intervals along the street or route to provide surveillance as well as contact and movement between inside and out.
- Passive frontage is defined as facades with only windows of inhabited rooms but no doorways, providing surveillance but no contact between public and private space.
- Dead frontage is where the edge to the public space or route is a blank wall or wall that is effectively blank, for instance rows of garage doors or where windows are obscured.



Key:

—	Active
—	Passive
—	Dead



1. The perimeter of the estate is lined with 'dead' frontage, with no buildings offering a truly active frontage to the publicly accessible streets.
2. The flatted development that forms the corners of the estate have no habitable space at ground floor level, leading to some prominent expanses of blank edge.
3. The interior courtyard spaces of the estate are formed by high fences protecting gardens and building backs, reducing the level of interaction between buildings and the space.
4. Defensible space adjacent to 'passive' (habitable) frontage is poorly defined, leading to most windows being heavily curtained or in this case, to someone 'claiming' this space as private.

Building interfaces: Doors and building entrances

A number of important issues emerge from the analysis.

- Virtually the entire perimeter of the buildings at ground level is composed of effectively dead frontage, both exterior and interior perimeters
- Externally, this is brought about by garage doors to the town houses
- Internally this is brought about by solid fences between private gardens and the internal communal space
- The entrances and hallways to the flats are the exception but still only provide short lengths of, at best, passive frontage
- Originally designed to have at least passive frontage to the exterior perimeter, the windows of most ground floor flats are obscured by curtains to provide more privacy. This limits the perceived degree of surveillance of the exterior roads.
- Entrances to the flats are easily seen and accessed, with the exception of those accessed via the internal alleyway routes leading to the interior courtyards and communal space
- Doors to the townhouses are by contrast deeply recessed and not visible from the peripheral streets
- The ground level facades contribute little to the surveillance, liveliness and activity of the streets or other communal spaces. Very few ground floor flats have independent entrances from the street or semi-private front garden spaces accessible from inside the flats.



Key:

- Flat entrance/exit
- Double doorway
- Single doorway



1. The flatted development uses single 'cores' serving all the dwellings within the block, reducing the number of entrances and with it activity levels on the street.
2. Highly recessed doors and projecting 'dead' frontage of garages mean that the main house type on the estate offers little to the street in terms of overlooking or activity,
3. Some house entrances appear particularly vulnerable, with a single, deeply- recessed entrance.
4. The blocks of flats on the inner courtyard space have entrances off the tight alleyways and these feel particularly unwelcoming and unsafe.

Layout summary

The analysis indicates a structural problem with the arrangement of spaces on the estate. The lack of active building frontages to streets, routes and other spaces and the narrow entrance alleyways are particularly problematic. It is difficult to see how the problems uncovered in this study can be addressed without major structural changes to building layout, routes between buildings into the communal space and the configuration of the internal communal space itself.

1. The figure ground plans show that Eastfields stands out strongly from surrounding development patterns, both in terms of the larger scale of the block itself as well as its distinctive and indented plan form.
2. The building layout creates an indented but clear definition to the external perimeter roads.
3. However, the analysis of the building facades reveals that virtually the entire perimeter of the buildings at ground level is composed of effectively dead frontage, to both exterior and interior perimeters, contributing little to the surveillance, liveliness and activity of the streets or other communal spaces.
4. Eastfields appears in plan to be a 'perimeter block' form of layout but there are numerous routes that penetrate the perimeter buildings with the result that the distinction between what is public and what is private space is eroded. As a general rule, where publicly-accessible routes penetrate the interior of a perimeter block it is almost impossible to achieve active frontage to both internal and external facades as well as achieving privacy for private gardens.
5. Entrances to the flats are easily seen and accessed, with the exception of those accessed via the internal alleyway routes leading to the interior courtyards and communal space. Doors to the townhouses are, by contrast, deeply recessed and not visible from peripheral streets.
6. Both the R3 integration and intervisibility analyses shows the main central courtyard to be important for pedestrian movement within the estate and that it is a concave space with a high degree of intervisibility. However, the indented building arrangements mean that the courtyards at each corner are convex, with particularly poor intervisibility. Perceptions of safety during the day and particularly at night are likely to be affected by this configuration of hidden space in the courtyards.
7. The spaces with the least intervisibility are the entrance alleyways that link the internal courtyard to the outside world. This is because they are located in corners where they are least visible from spaces within the courtyard and also from the spaces around the external perimeter of the buildings. As a result these routes feel unsafe and are unpleasant to use.

Quality of the external environment

This final theme of the review assesses quality of the external environment of the estate. It reviews Eastfields from an urban design point of view and does not attempt to make aesthetic or value judgements on architectural style. Instead it concentrates on the physical, spatial and environmental aspects of the estate's design.

It does not include stock condition of buildings, nor does it include a survey of the internal condition of homes in Eastfields. A more detailed analysis of dwelling types is provided in Levitt Bernstein's baseline study of the estate.

The elements reviewed are:

Buildings

- Character
- Density and mix

Public realm

- Streetscape
- Open spaces
- Landscape

This review primarily uses photos to identify characteristic types of buildings and spaces and highlights key issues of quality and use.

Building character, density and mix

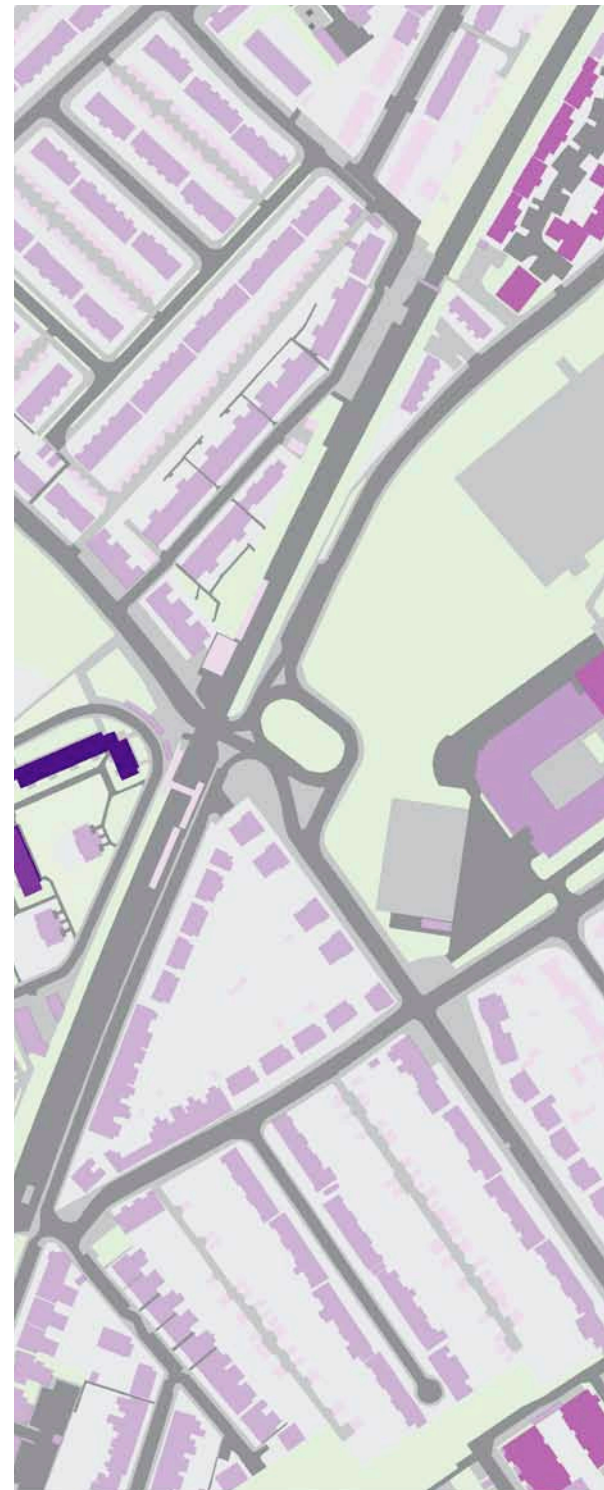
The majority of the area surrounding Eastfields is characterized by early 20th century and post-war suburban housing, typically detached, semi-detached or in short terraces and of one or two storeys in height. There are some higher buildings in Mitcham town centre and recent housing, such as Rowan and Brenley Park, ranges from two to five storeys.

Eastfields has a distinct identity: It is uncompromising in its urban form, adopting a uniform height of 3 storeys across the site and homogenous in its massing and use of materials. There are only two main dwelling types: three-bedroomed townhouses and walk-up blocks of flats of 1-3 bedrooms.

Eastfields' building form, massing, architectural style and materials are all alien to the otherwise suburban character of surrounding context. However, the site's physical separation means that there is no obvious reason for 'keeping in keeping' and with regeneration there is the opportunity to create a distinctive new character for Eastfields with greater variation in architectural treatment, building heights, dwelling types and sizes.

Eastfields has 466 homes in an area of 6.8 ha, giving a density of 69 dwellings per hectare (dph). The range of units is restricted: Of the 251 homes owned by Circle, 190 are 1-bedroom flats. The remainder is made up of 1 x 4-bed unit, 18 x 2-bed units and 42 x 3-beds.

In terms of tenure, of the 466 homes 251 (54%) are occupied by Circle tenants, 151 (32%) are in private ownership and the remaining 64 (14%) in lease hold arrangements. The vast majority of the townhouses are now in private ownership. Regeneration options for Eastfields will allow an opportunity to review the mix of dwelling unit sizes and balance of private, social, rented and intermediate tenures.



Key:

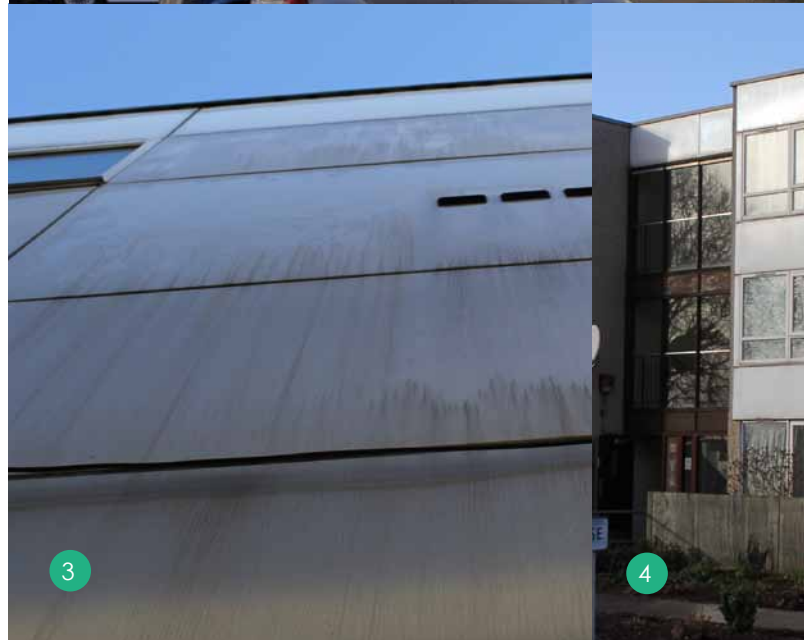
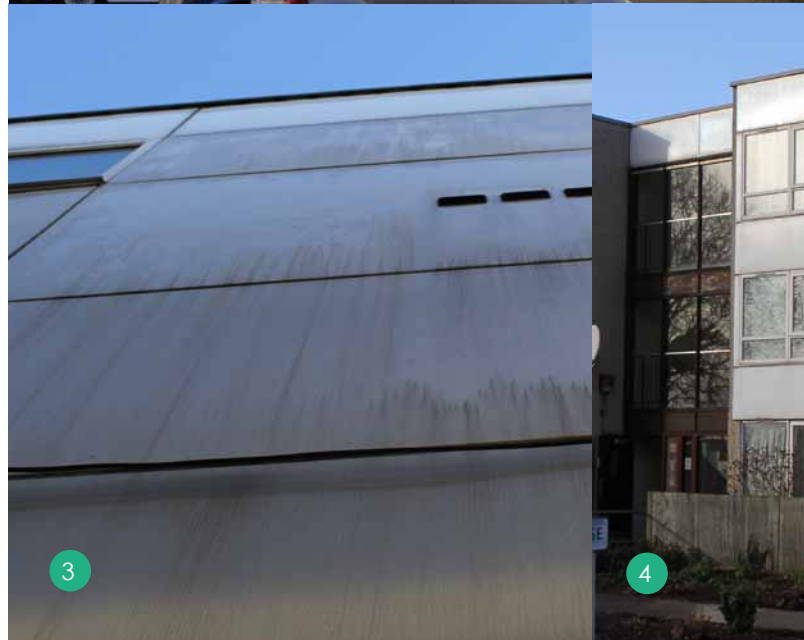




■ 2 storeys ■ 1 storeys

This sequence of images shows the range of buildings present on the estate.

1. The estate is uncompromising in its urban form, adopting a uniform height of 3 storeys across the site. A single type is used for the townhouses, and these form the majority of the perimeter of the estate.
2. The small 'close' spaces around the site edge are terminated by blocks of flats with garages to the ground floor and entrances to each corner.
3. Poor weathering of building materials - not helped by orientation and microclimate.
4. The estate corners are made up of blocks of flats that are serviced by a single core, and this core is accessible from either outside or from the interior courtyard.
5. Roof terraces add overlooking to the main public routes at the edge of the estate, and they also offer a chance for dwellings to be personalised.





Streetscape: vehicular routes



1. The corner of Mullholland Close and Clay Avenue uses block paving to help calm traffic. The rest of the estate uses standard road types and materials.

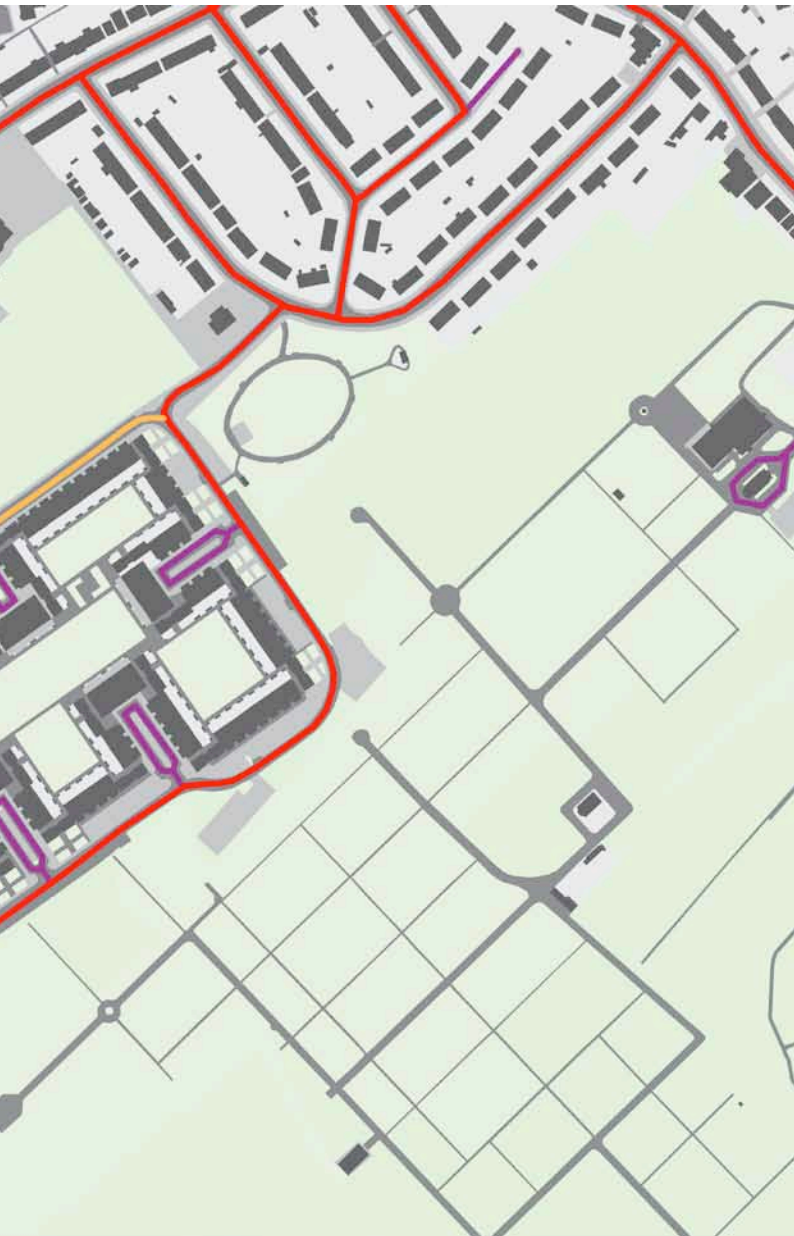


2. High levels parking around perimeter of the estate. Cars dominate streetscape, indicating high levels car ownership and a relatively isolated location



Key:

- Routes fully connected to the wider system
- Connected routes leading to dead ends
- Dead end routes



3. Clay Avenue forms the southern loop of the estate's perimeter, and has closable gates hinting at a potential vehicle management issue.



4. Acacia Road and Mullholland Close are not joined for vehicles, preventing through movement.

Streetscape: pedestrian routes



1. Moving from outside the estate to the internal space requires passing through narrow alleyways, all of which were gated but not locked.



2. The definition between what is public and what is private is sometimes hard to discern, and above, a resident has more clearly defined what is private through the use of a fence.



Key:

---➤ Pedestrian routes



3. Diagonal routes have been retrofitted to the western courtyard space, reflecting the shorter and simpler 'desire line' here as people exit the estate for the surrounding area.



4. The routes internal to the courtyard pass adjacent to private gardens, with high fences and low levels of overlooking.

Open spaces

The open aspect across the Crematorium to the south and east as well as the green internal space with mature trees reduce the perceived density of Eastfields' very urban form. Eastfields' residents value the green space with access for all living there and would like to see this feature retained in any future regeneration option.

The location of the various formal and informal recreation facilities within and adjacent to the estate interior are well-located in terms of intervisibility, meaning that they are well overlooked by passers by even at distance, and will be relatively less likely to suffer from antisocial behaviour.

The edges to all the interior courtyards feature a solid boundary treatment that has also has recesses. Visibility into these spaces is poor, especially when moving along the footpaths that run next to the high garden fences. These recessed spaces could be used as hiding places, to spray graffiti or to dump litter unseen.

1. A hammock in one of the interior courtyard spaces, and someone has left children's play equipment next to it, possibly indicating this is a safe and well-used spot.
2. Poor planting in spaces with ambiguous ownership and amenity value make some of the spaces around the outside of the estate look unkempt
3. The formal social spaces on site lack adequate supports for their intended use.

 Private gardens

 Areas of open space within Eastfields Estate





Play spaces

Eastfields has areas of formal and informal space for play either on the estate or immediately adjacent. The dedicated multi use games facility on the estate is in extremely poor condition and is probably not used. It was open when we visited but the gate and bolt were drawn shut.

The small park on the corner of Clay Avenue is a high quality facility and is easy to access from the north east corner of the development. The main interior courtyard space has limited play equipment and informal recreation facilities but does not appear to be used for play. There are signs precluding ball games etc.

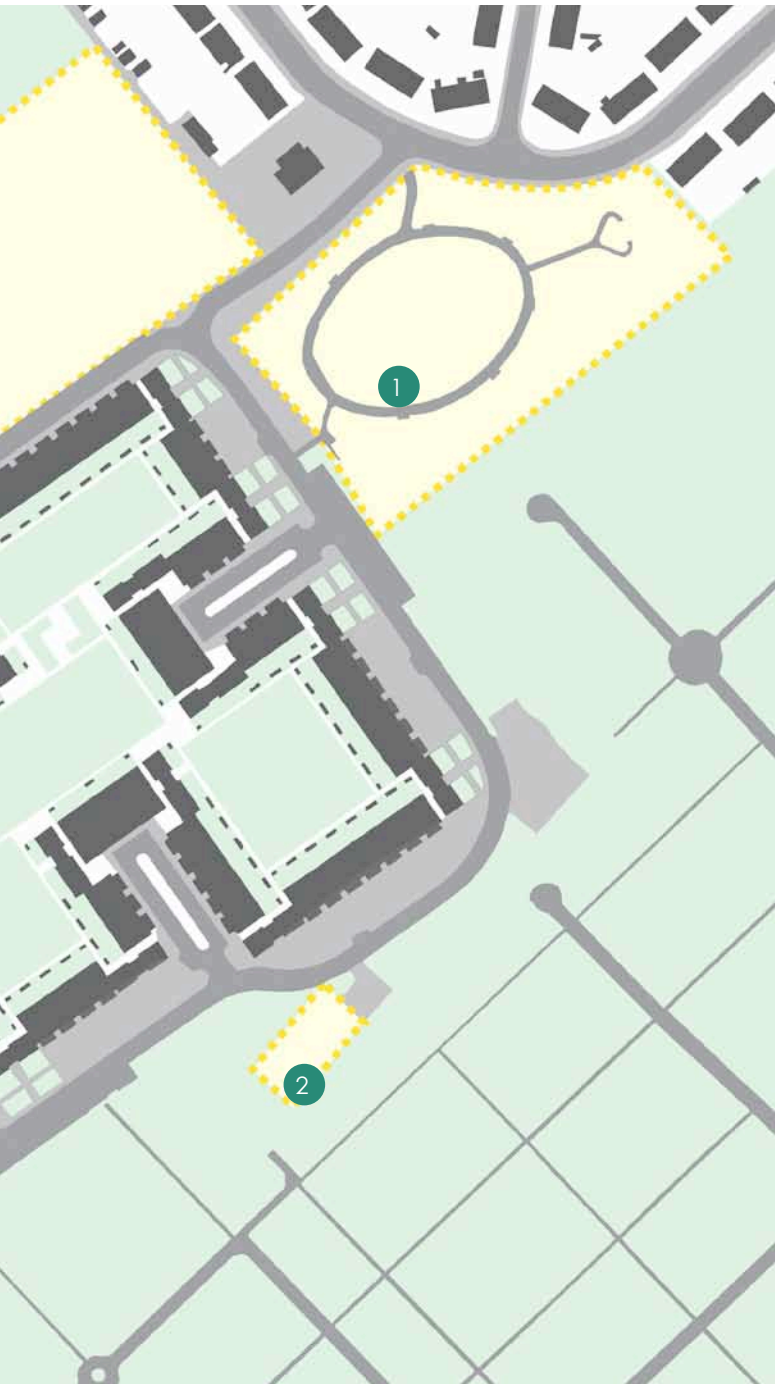
Images:

1. The park on the corner of Clay Avenue features good-quality play equipment. The equipment caters for a range of ages.
2. The basketball court on the south of the estate is in very poor repair and looks unused.
3. Tree stumps provide for informal play in the main courtyard of the estate.



Play spaces on the estate:

1. Long Bolstead recreation ground
2. Basketball court
3. Small scale play, tree stumps and table tennis
4. Mitcham BMX track (not pictured)



Landscape

The role of landscape for this estate is particularly significant given the architectural style. uniformity of buildings and materials. Our visit was conducted in winter, and the impact of landscape on the overall setting is reduced from the experience when trees are in leaf. This is confirmed by using Google Streetview, where at other times of year the landscape is more prominent and attractive.

Images:

1. Potentially attractive 'pockets' of landscape surround the estate but maintenance varies and these are very poor in places.
2. Mature trees in the 'closes' are significant features that add quality and help soften the architecture.
3. The central communal space has a generally open aspect and here the mature trees add a great deal to the character and differentiation of this space.



Quality of the external environment summary

1. Eastfields' building form, massing, architectural style and materials are all alien to the otherwise suburban character of the surrounding context. It has a distinct identity and is uncompromising in its urban form, adopting a uniform height of 3 storeys across the site and homogenous in its massing and use of materials.
2. However, the site's physical separation means that there is no obvious reason for 'keeping in keeping'. With regeneration there is the opportunity to create a distinctive new character for Eastfields with greater variation in architectural treatment, building heights, dwelling types and sizes.
3. The external landscape of the estate is predominantly made up of standard roads and hard-surfaced parking areas. Some pockets for low level planting are provided to break up the hard surfaces but these are poorly maintained in some parts of the estate.
4. The exception to this are the mature trees in the closes and these have a significant impact in softening and greening a street scene that is otherwise dominated by parked cars and hard surfaces.
5. The internal communal spaces of the estate are simply landscaped, with large grassed areas, footpaths generally around the perimeter of the spaces and some provision for play and recreation. Again, the mature trees have an enormous impact on the attractiveness of this central area.
6. However, the central area appears little used as evidenced by the absence of desire lines across the diagonals of the spaces. Only one new diagonal footpath has been retrofitted. This lack of use of an otherwise attractive space is probably due to the blank edges around the whole perimeter and absence of surveillance and activity. However, the survey was carried out in January and so low levels of activity would be expected in outside spaces.



Review conclusions

Building for Life 12 | Review summary

Building for Life 12

Building for Life 12 is a tool kit that is aimed at assessing residential quality. It is a national initiative, endorsed by government for well-designed homes and neighbourhoods that local communities, local authorities and developers are encouraged to use to help stimulate conversations about creating good places to live.

It uses a series of 12 questions to interrogate a place and develop a picture of its likely performance against design best practice.

Each headline question is followed by a series of additional questions, and also provided are five recommendations in the form of 'design prompts'.

The 12 questions are broken into chapters, and there are four questions in each of the three chapters:

- Integrating into the neighbourhood
- Creating a place
- Street and home

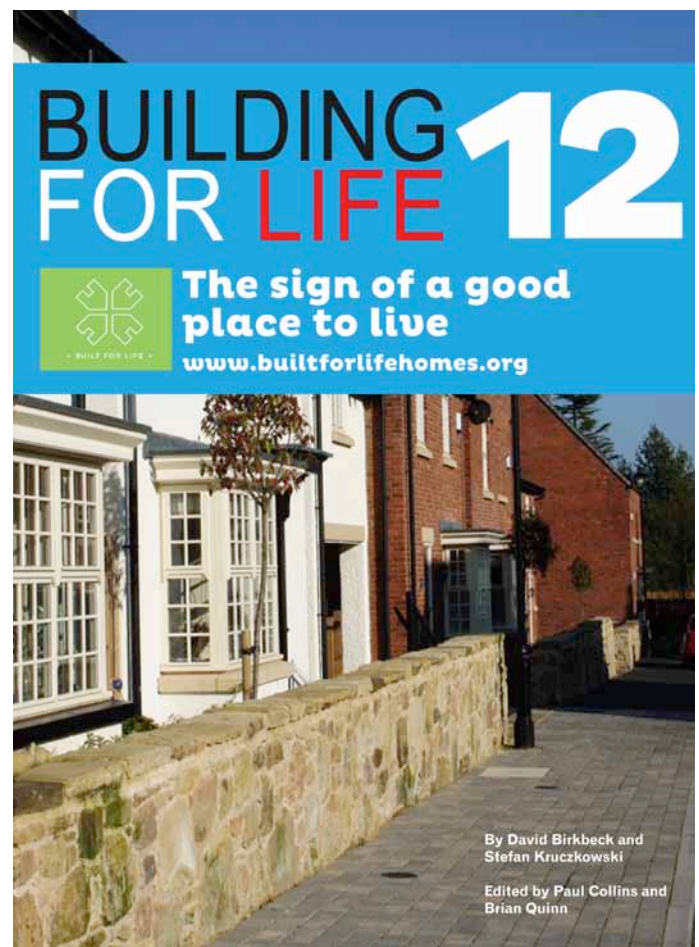
Based on a simple 'traffic light' system (red, amber and green) it is recommended that proposed new developments aim to:

- Secure as many 'greens' as possible,
- Minimise the number of 'ambers' and;
- Avoid 'reds'.

The more 'greens' that are achieved, the better a development will be.





A red light gives warning that a particular aspect of a proposed development needs to be reconsidered.

Here we use the BfL12 questions to compare existing Eastfields with current best practice to draw conclusions on how it performs.







Above: BfL12 (2015 edition)





Integrating into the neighbourhood

Question	Score	Commentary
<p>1 Connections</p> <p>Does the scheme integrate into its surroundings by reinforcing existing connections and creating new ones; whilst also respecting existing buildings and land uses along the boundaries of the development site?</p>		The estate integrates poorly with the surrounding area.
<p>2 Facilities and services</p> <p>Does the development provide (or is it close to) community facilities, such as shops, schools, workplaces, parks, play areas, pubs or cafes?</p>		Although the site is adjacent to a district centre, accessing this is not as direct and convenient as it might otherwise be.
<p>3 Public transport</p> <p>Does the scheme have good access to public transport to help reduce car dependency?</p>		The site is well placed for access to tram and bus connections.
<p>4 Meeting local housing requirements</p> <p>Does the development have a mix of housing types and tenures that suit local requirements?</p>		The current estate offers a range of dwellings sizes and tenures.

Creating a place

Question	Score	Commentary
<p>5 Character</p> <p>Does the scheme create a place with a locally inspired or otherwise distinctive character?</p>		The scheme is completely distinct from the character of the surrounding area.
<p>6 Working with the site and its context</p> <p>Does the scheme take advantage of existing topography, landscape features (including water courses), wildlife habitats, existing buildings, site orientation and microclimates?</p>		The site does not reflect the grain of surrounding areas. However, the site makes use of preexisting mature trees.
<p>7 Creating well defined streets and spaces</p> <p>Are buildings designed and positioned with landscaping to define and enhance streets and spaces and are buildings designed to turn street corners well?</p>		The definition of streets and spaces is extremely poorly handled by the specific building arrangements employed in this design.
<p>8 Easy to find your way around</p> <p>Is the scheme designed to make it easy to find your way around?</p>		Short sight lines and high levels of repetition at the building level make this a difficult estate to navigate.

Street and home

Question	Score	Commentary
<p>9 Streets for all Are streets designed in a way that encourage low vehicle speeds and allow them to function as social spaces?</p>		Vehicle speeds on the streets should be low, but the building interfaces are such that they do not encourage the streets to act as social spaces.
<p>10 Car parking Is resident and visitor parking sufficient and well integrated so that it does not dominate the street?</p>		Parking is poorly integrated throughout the estate and garages look under used.
<p>11 Public and private spaces Will public and private spaces be clearly defined and designed to be attractive, well managed and safe?</p>		Private space is placed directly adjacent public or semi-public routes, and the boundaries, whilst clear, are not attractive and safe.
<p>12 External storage and amenity space Is there adequate external storage space for bins and recycling as well as vehicles and cycles?</p>		Whilst there appears to be adequate bin storage, these are often provided in locations that are remote from dwellings. There was no evidence of dedicated cycle parking and storage.

This summary shows that the Eastfields estate performs poorly against the BfL12 questions, with three only 'greens' being awarded; for public transport, meeting local housing requirements, and for character.

In all other areas, the estate fails to satisfy the requirements of BfL12, and this is partly due to the location of the site and partly to do with the experimental layout and architectural approach used.

