



“The world’s first responsible
real estate fund”



Allie's Kitchen and Bar

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London - Bermondsy Square

The Bermondsey Square development was undertaken as part of a holistic economic, social, environmental and physical intervention in partnership with Southwark Council, the London Development Agency and the local community. Apartments, offices, a boutique hotel, shops, restaurants and an independent cinema are set around a new landscaped square which continues to host the long-established Antiques Market. Events such as farmers' and fashion markets, exhibitions, and outdoor cinema screenings add to the vibrancy of life in Bermondsey. <<http://www.bermondseysquare.co.uk>>

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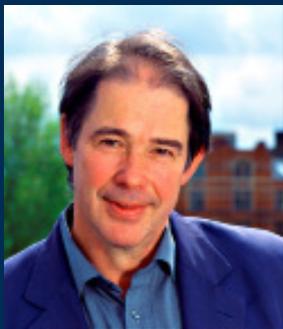
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Foreword



10 years ago, when this Footprint® policy was first developed, people and politicians were only just getting their heads around the fact that the world as we know it today isn't going to be with us for much longer. Climate change, rising fossil fuel prices, social instability, obstinately high levels of poverty, crime and alienation – against that kind of backdrop, “business as usual” models of economic development and regeneration just didn't sound credible. The challenge then was to turn all that gathering awareness into much more ambitious and urgent action on the ground.

The igloo Regeneration Partnership responded to this new world by developing a set of sustainable investment policies called Footprint®. The partnership then asked Forum for the Future to establish a Sustainable Investment Steering Group to review these policies and the extent to which they have been implemented in the schemes funded through the igloo regeneration fund. These policies put igloo ahead of the curve - and not just at the level of reassuring rhetoric. We are pleased to report that Footprint® has fundamentally changed the way that igloo schemes are designed, specified, built and managed. This has not been easy and there are times when the Sustainable Investment Steering Group has been critical of the pace of progress. However the commitment is there to do things differently as we all must.

Professor Anne Power, Paul King, Sunand Prasad and Charles Seaford all share my sense of excitement that this is an initiative is really helping to drive much better practice across the sector as a whole - and not before time!

A handwritten signature in blue ink that reads "Jonathan Porritt". The signature is written in a cursive, flowing style with a long underline.

Jonathan Porritt
Founder Director of Forum for the Future



Foreword



The igloo investment fund has been described by the United Nations as the world's first responsible real estate fund. This has been achieved through the development of the unique Sustainable Investment (SI) Policy, which we launched at the commencement of the Fund in 2002.

We believe that the application of SI principles in a real estate investment fund requires an ongoing programme of research and innovation in order to make better decisions to maximise investment returns.

From the outset we saw that a regeneration fund which embraced the principles of SI could help local councils and central government's regional and national regeneration agencies to deliver their social and economic outputs. Since 2002 igloo has demonstrated, through the implementation of its SI Policy in schemes as diverse as Bermondsey Square in London, the new BBC Studios in Cardiff, the Round Foundry and Granary Wharf in Leeds and Green Street and the Science Park in Nottingham that we are serious about using it to change the way we work. This includes the way that we work with public and community sector partners to achieve physical, economic and social transformation as well as environmental performance. This underpins igloo's objective to secure the best financial returns for the people who invest their pensions and savings with us.

igloo has pursued sustainable urban regeneration from the outset and yet we recognise that we are learning with every step we take. I believe these updated policies will extend the abilities of our development teams to push the boundaries of sustainable institutional property investment, to the benefit of our investors, our public sector partners and the communities within which we work.

Chris Brown
Chief Executive, igloo Regeneration Ltd

Introduction

♥ Leeds - Marshall's Mill/Round Foundry

The Marshall's Mill regeneration project in Leeds is located in a contemporary and locally distinctive, sustainable, fine-grained, mixed-use, e-connected, inclusive, media-savvy, buzzing community in a historical environment-enhancing e-neighbourhood within the Holbeck Quarter. The development makes a socially responsible return on capital creating a place appealing to creative, design conscious, environmentally sensitive people as a place to live, work and play.



Why Sustainable Investment?

The igloo Regeneration Partnership (the Fund) is managed by Aviva Investors to invest in the physical regeneration of the UK's top 20 cities. The Fund is committed to a policy of sustainable Investment (SI) that will deliver long-term social, economic and environmental benefits whilst delivering acceptable financial returns.

igloo continues to develop a real estate investment portfolio founded on a Sustainable Investment or SI policy. Its SI policy has been developed with URBED (Urbanism, Environment and Design) and aims to screen and assess urban regeneration schemes, in which igloo propose to invest, for their SI characteristics. In order to do this igloo has defined four SI themes:

- **Health, happiness and wellbeing** – Investing in people and communities in order to change lives and realise potential;
- **Regeneration** – Investing not just in physical regeneration but in the social and economic lifeblood of urban neighbourhoods;
- **Environmental Sustainability** – Investing in more environmentally sustainable forms of urban development, and associated infrastructure and services;
- **Urban Design** – Investing in placemaking to create distinctive, vibrant and mixed-use neighbourhoods that are urban in character.

These themes are based on the belief that igloo's investments will perform better if they contribute to the regeneration of the area they are in (and therefore benefit from that regeneration), if they are environmentally sustainable (and therefore 'future-proofed', against higher energy costs for example), and if they are well designed (and therefore more attractive to occupiers). But above all igloo believes that investment in the health, happiness and wellbeing of people and communities should form the basis for successful regeneration projects.

Furthermore, igloo will not invest in schemes that accommodate activities that are blacklisted by its investors, specifically excluding facilities for the undertaking of animal testing.

SI policy implementation

The SI policy is being implemented across all of igloo's investments either in its complete form or in an adapted form where igloo is investing in partnership.

Blueprint which is a joint venture between igloo and the HCA is committed to using Footprint as a tool to guide its developments. The same is true of the Carillion igloo partnership where the board has approved the adoption of footprint for all of its projects.

The development managers within the igloo family are responsible for overseeing the implementation of SI policy, with ongoing support provided by URBED. An independent Sustainable Investment Committee has been set up to review SI performance and to advise on continuous improvement to the policy and its implementation. This Committee is chaired by Jonathon Porritt, Founder Director of Forum for the Future. There are four additional members who are leading practitioners in each of the SI themes:

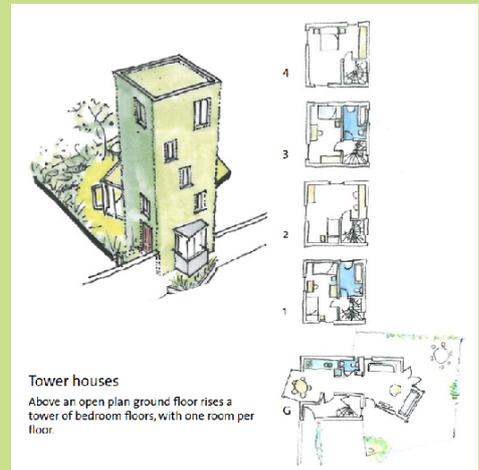
- Professor Anne Power ([regeneration](#)) London School of Economics
- Paul King ([environmental sustainability](#)) Chief Executive UK Green Buildings Council, and
- Sunand Prasad ([urban design](#)) Past President of RIBA
- Charles Seaford ([health, happiness and wellbeing](#)) New Economics Foundation

The Committee's terms of reference are to review SI performance audits and to advise on means of continuous improvement to the Policy and its implementation.



Ouseburn - Newcastle

The Ouseburn Valley between Newcastle city centre and the Byker Estate is a fascinating place. Once the industrial heart of the city it is now the centre of a creative community with wonderful pubs, artists studios, galleries and workspace - but also a lot of vacant land and very few people actually living there. Carillion igloo have been appointed as development partners for the valley. Working to a masterplan by Studio Egret West, the first phase of housing (pictured below) has been designed by Ash Sakula Architects. As of early 2013 this scheme has scored the highest score ever on the footprint assessment.



Strengths of the SI approach

footprint® is a bespoke assessment tool developed by igloo. In a sector where there is no shortage of sustainable development guidance, the key strengths of the policy are that it:

- meets the need for an assessment tool that is specifically tailored for mixed-use, neighbourhood scale 'urban renaissance' schemes
- brings together in a holistic way the four themes of health, happiness and wellbeing, regeneration, environmental sustainability and urban design
- places a strong emphasis on the need to respond to the opportunities created by the site and its context, including engagement with stakeholders
- encourages developers and project teams to think more strategically, enabling the added value of SI implementation to be realised, and
- considers the development and innovation process, seeking to benchmark performance against European Union and Global industry practices and identifying potential risks to implementation.
- It is, wherever possible, quantifiable so that performance on schemes can be assessed against a definable target rather than vague good intentions.
- It assesses schemes through their design, construction and post completion to ensure that targets set at the outset are carried through into the completed development

igloo recognises that footprint® is a starting point for a learning process by project teams. It will need to be backed up by drawing upon the full range of available tools and techniques that can be used to support implementation. Therefore, in order to get the most out of the Policy,



Glasgow - Spiers Lock
Speirs Locks is quietly emerging to be a neighbourhood where creative people thrive - a daring and distinct place, with culture, creativity and art at its heart. It is fast becoming Scotland's centre for creative and cultural production. Starting with Scottish Opera and GAMTA, a series of former industrial premises have been converted for the National Theatre of Scotland and the Royal Conservatoire of Scotland, who opened a new £6.3M campus to provide for its dance curriculum.

A former Glue Factory has become a pop-up gallery and artists' studio, and the Whisky Bond will become a creative factory for Glasgow, a place for like-minded entrepreneurs to run a business, and an accessible venue and gallery for a wide audience to enjoy.

The ideas for change were developed following an extensive process of engagement with local residents, businesses and stakeholders. The approach focused on opening up new links and connections to the canal whilst cultivating the vibe of a creative neighbourhood through high profile arts and public realm initiatives.

- project managers and their professional teams receive an induction in the policy in order to ensure a good level of familiarity with its aims and objectives;
- project teams set performance benchmarks at the outset in response to the opportunities created by a scheme; and
- project teams are encouraged to use other assessment tools to complement and improve the SI policy and scores. These could be linked to the planning process and could include BREEAM, the Code for Sustainable Homes, Sustainable development checklists and Design Quality Indicators; as well as specific requirements such the Greater London Authority's energy planning policies.

Policy guidance notes have also been produced in response to requests from project teams for greater clarity on the assessment criteria for specific policies.

How a scheme's performance is assessed

Assessment of a scheme's performance is based on 24 SI policies that have been specially developed to cover the urban regeneration activities that igloo undertakes. Each of the footprint® themes: wellbeing, regeneration, sustainability and design are broken down into 6 sub-themes and in turn into a series of rules.

These rules are used to assess schemes brought forward at four key stages during the development process:

- **Stage 1 — Screening:** This is undertaken early on in the process to decide whether a scheme should be pursued further.
- **Stage 2 — Design:** This is a detailed assessment of the design of the scheme before it is submitted for planning. Sometimes larger schemes will have a Stage 2 for the masterplan and separate Stage 2 assessments for each phase as they are brought forward.
- **Stage 3 — Construction:** This takes place towards the end of the construction process and assesses the scheme as built and gets feedback from the consultancy team.
- **Stage 4 — Occupancy:** This is undertaken around 2 years post completion to determine the actual performance of the scheme against the SI policies. This includes a review of energy use, regeneration outputs and occupier feedback.

The themes and sub-themes are described in the following sections. These are supplemented by a set of guidance notes that are available in a separate volume. Where possible quantitative targets and objective requirements have been set to ensure clarity. However, the wide range of coverage means that for some policies – particularly under the urban design theme – an informed judgement will have to be made by a suitably qualified assessor.

Brentford Lock West

This is a mixed use scheme being developed by Isis in West London. The first phase which includes the Karakusevic Carson building below was assessed in 2012 as shown on the facing page.

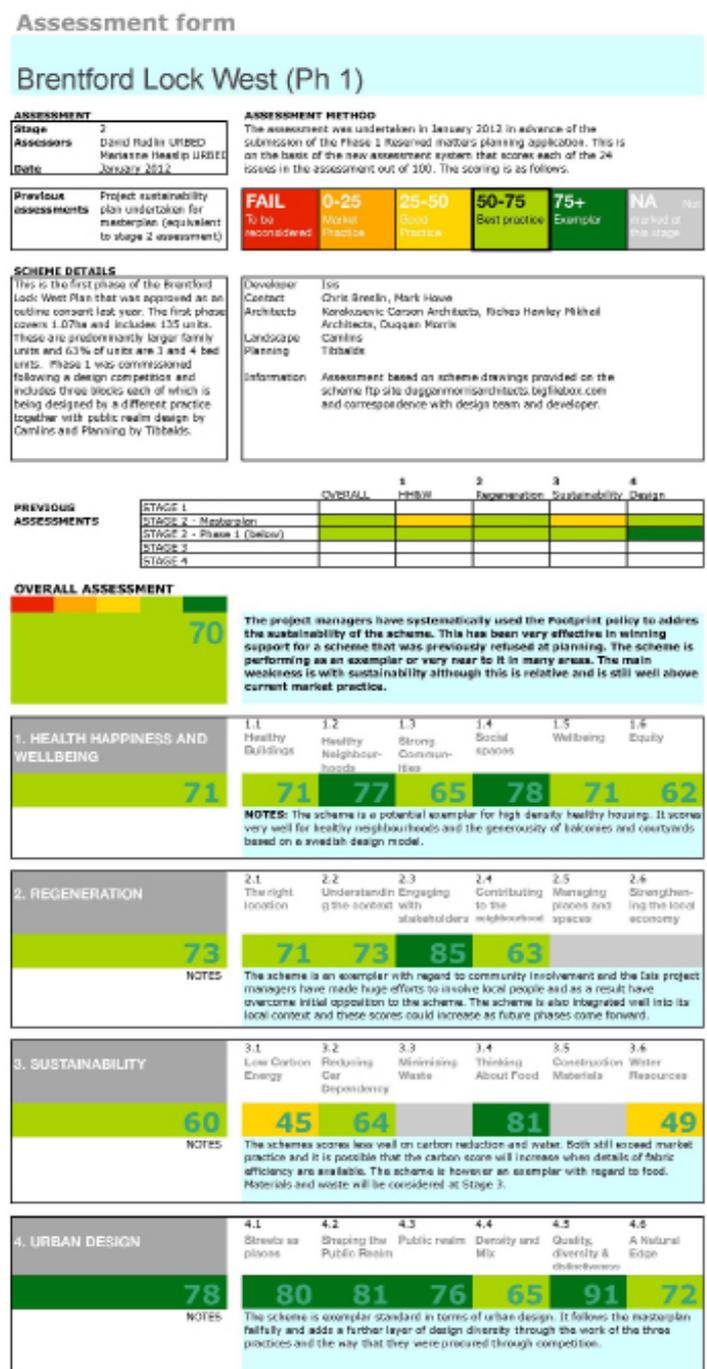


Benchmarking performance

The scoring of each scheme is based on a combination of quantitative and qualitative assessment criteria. The scoring system seeks to benchmark the performance criteria against best practice both in the UK and across the world. The scoring for each criteria is based on five benchmarks, which are defined as follows:

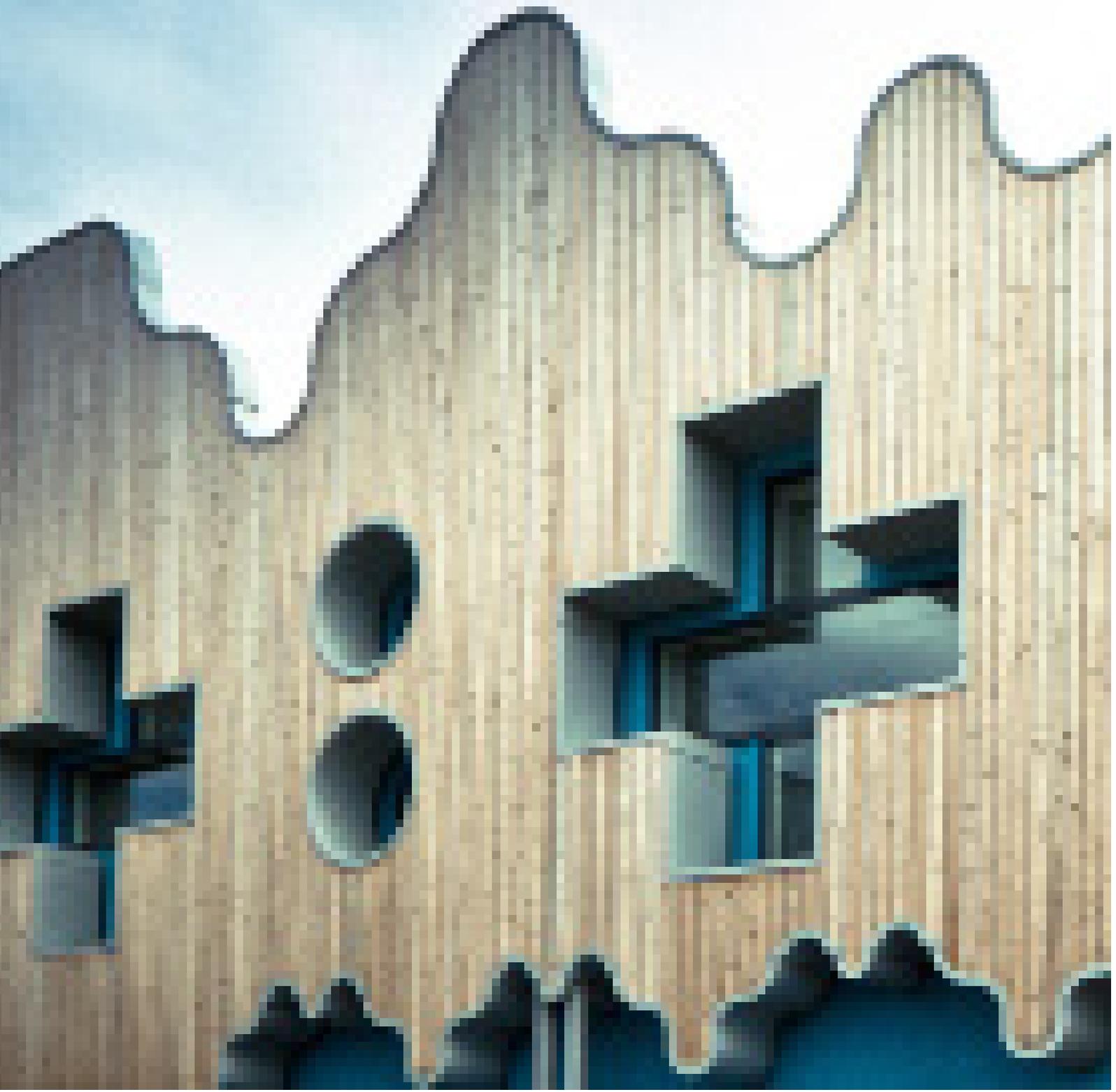
- Bad Practice** - That has fundamental weaknesses and which represent an inadequate response to the policy
- Market Practice** - Average market practices and minimum compliance with regulatory standards
- Good Practice** - Performance that is ahead of market practice and which has begun to address key requirements of the policy
- Best Practice** - Performance which meets key requirements of the policy and is comparable with the leading UK examples
- Exemplar Practice** - performance which has met the policy in full and is comparable with the best schemes across the world.

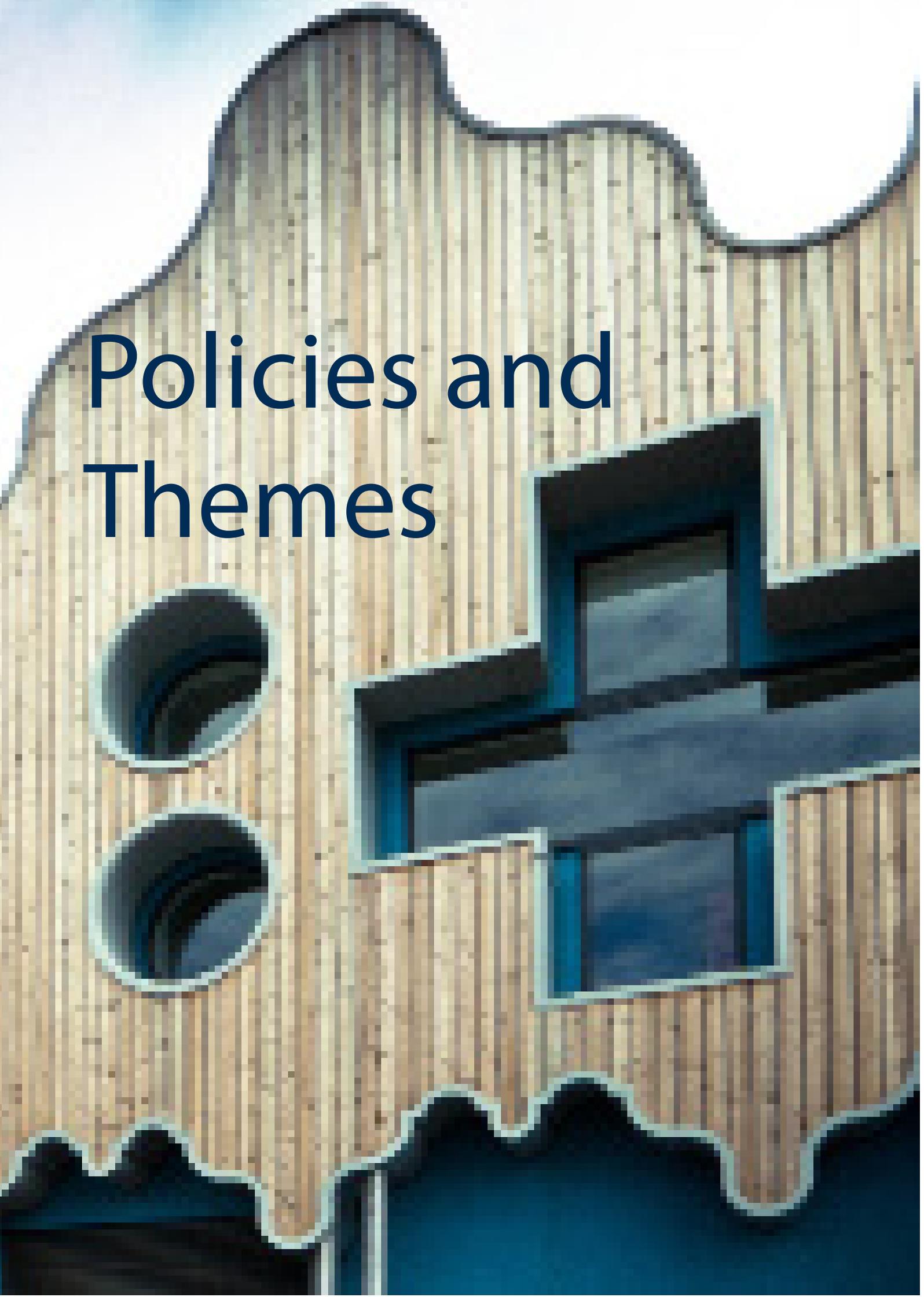
These benchmarks are used to score each scheme out of 100 on a detailed matrix. This produces a summary sheet such as the example to the right which gives a clear overview of the scheme's performance strengths and weaknesses.



Cardiff - Porth Teigr

Porth Teigr is a joint venture between igloo – an Aviva Investors Real Estate Fund - and the Welsh Government. The venture is responsible for developing 38 acres of land – on the south side of Roath Basin in Cardiff Bay - for an environmentally sustainable mixed-use development including 2.2 million ft² of commercial, retail, community and residential space. Plans to create this vibrant new commercial and residential community at Porth Teigr are already underway. The centrepiece of the development is the new 170,000 sq foot drama production studio complex being leased by the BBC – Roath Lock studios – which is one of the largest investments in new drama facilities of its kind in Europe and has been completed to BREEAM Outstanding. The studios are home to flagship BBC shows including Doctor Who, Casualty, Pobol y Cwm and Upstairs Downstairs.





Policies and Themes

footprint® Theme 1:

Health,

Happiness

and

Wellbeing



The Pursuit of happiness

The notion of a property developer seeking to protect and enhance people's health and wellbeing might seem natural in the light of current thinking on Corporate Social Responsibility and value creation. However the notion of increasing people's happiness is a uniquely modern proposition. But the happiness of individuals and communities is intimately related to the places that they live, work and spend their daily life and how they are organised and designed. This is something that has occupied people for centuries.

The city as a place of contradictions

Cities have always been places of contradictions and are often portrayed as unhealthy places characterised by pollution, crime and the worst of human nature. They are places where people live closely together but often know nothing about one another's lives and where the values of community have sometimes been eroded.

On the other hand the 'wit and mess' of urban life has always attracted people, creating new possibilities for free expression and for meeting people from different places and walks of life with new perspectives – 'town air makes the man free' wrote George Simmel observing German cities in the 18th Century.

Cities have always acted as a breeding place for new ideas and thinking, challenging human ingenuity to respond to the needs of urban society. Great cities are creative and dynamic places, where people and place come together to create something really special. But despite this potential societal trends and the poor quality of the urban environment in many of the UK's cities have served to reinforce the unhealthy image of our cities. Examples include:

- Badly designed buildings without sufficient natural daylight and ventilation, containing toxic materials and finishings,
- Air pollution from vehicles and increasing congestion which reduces life expectancy and increases stress,
- Dependence on the car and more sedentary lifestyles which together have reduced physical exercise and increased levels of obesity,
- A degraded public realm and a lack of green space that limits the potential for exercise, relaxation and social contact,
- Social exclusion and deprivation that has proved consistently difficult to tackle, leaving whole sections of society without hope for the future,
- Status anxiety, stress and time pressure which have contributed to a dramatic increase in mental health problems.

The challenge for igloo is how to make careful interventions that respond to these problems in a way that makes a difference for both new and existing communities.

Does regeneration improve wellbeing?

It is important to recognise that there are large areas of urban Britain where hope for the future is hard to find. These areas have experienced dramatic decline in the post-war era brought on by the decline of manufacturing. Slum clearance in the 1960's and 1970's created immense upheaval and served to accelerate erosion of the social fabric of these communities.

The modern drive to 'regenerate' carries the risk of further polarising the haves – those with the wealth to sustain an increase in values and buy into 'urban living' and healthy lifestyles – and the have-nots – the socially excluded living in poor quality housing, without access to employment and basic amenities, exposed to crime, social breakdown, insecurity and a degraded local environment.

To try and change things a careful approach to regeneration is needed that looks wider than just the red line round a site. The psychologist Abraham Maslow's observations that certain basic needs had to be fulfilled in order to secure people's wellbeing provides an insight into where the emphasis should be placed.

The pursuit of happiness

Happiness is equally as precious but less easy to reliably orchestrate than wellbeing. In modern consumer society people often define or calibrate their happiness against their peers, or what clever marketing establishes as lifestyle aspirations. This has created the modern Catch 22 of status anxiety in which we demand greater choice but as a result can never be happy. Increasing mental health problems are a symptom of this, together with the increased pace of modern life in which time is a commodity.



The new bridge at Porth Teigr Cardiff

Living within environmental limits is an important theme for igloo, and should not be a barrier to happiness and wellbeing. Research by the New Economics Foundation, amongst others, has highlighted the fact that these need not be mutually exclusive, having found that "people are just as likely to lead satisfied lives whether their levels of consumption are very low or high".

Building on the thinking of contemporary sociologists such as Gehl, Puttnam and Oldenburg, igloo's approach seeks to sidestep consumer pressures by creating fundamental opportunities

for people to define happiness on their own terms – by creating the space and time to nurture social bonds and networks, and in whatever form they might take, whether in streets, spaces or via the internet – but also through:

Bermondsey Square
Farmers Market



- ensuring a close proximity of home and work in order to promote a healthy work/life balance,
- supporting people to establish their own businesses and realise their potential,
- people participating in shaping, influencing and investing in the future of their neighbourhood.

Bringing together this thinking has resulted in four new policies on 'health, happiness and wellbeing'. These have been informed by three basic premises:

- **Celebrating the city** – That the focus should be on celebrating and emphasising the positive contribution that cities have made to civilisation, the ways in which they can improve people's quality of life, and how their more detrimental effects can be minimised or even designed out.
- **Context is everything** – That the starting point for an igloo regeneration project should be an appreciation of the wider neighbourhood, and the impact each intervention will have on neighbourhood wellbeing.
- **Happiness but not at any cost** – That igloo should seek to create opportunities for people to live fulfilling and happy lives, based on a generic understanding of the human condition and basic needs, but bounded by a strong social contract and the need to live within environmental constraints.

The new policies set out measures and standards that at first glance seem common sense but in modern developments are overlooked. They also focus attention on the wider neighbourhood, and in the spirit of urbanism, the chance to harness the potential of cities to change lives and realise people's potential. It is in this way that the long-term value of investment in regeneration can be unlocked, to the benefit of investors, communities and the environment.

footprint® Principles:

Health Happiness and Wellbeing

1.1

Healthy Buildings

We expect buildings and homes to be designed to create healthy and comfortable environments in which to live and work.

1.2

Healthy Neighbourhoods

We expect the neighbourhoods that we create to support healthy living and encourage active lives by making positive choices safe, attractive and convenient.

1.3

Strong Communities

We expect our schemes to be designed and managed in a way that encourages the growth of a strong community.

- A. Housing standards:** Projects should be designed and managed in order to respond to people's changing circumstances, now and into the future.
- B. Visual and thermal comfort:** All buildings should use natural daylight and be well ventilated.
- C. Dual aspect homes:** All residential accommodation should have windows on two faces.
- D. Toxins:** All buildings should be free of materials that constitute a potential risk to health.
- E. Noise and vibration:** Projects should be designed and managed in order to minimise stressful noise that could be detrimental to people's health.
- F. Privacy:** Within the home people should have private space free from overlooking by other property.
- G. Security:** All buildings should be secure and be designed to reduce the risk of crime.
- A. Walking and cycling:** Streets and the public realm should be designed to be safer, less polluted and more pedestrian and cycle friendly (see also 3.2d).
- B. Opportunities for exercise:** Projects should be designed and located in order to provide access to safe leisure walking and cycling routes, as well as facilities for formal recreation.
- C. Fresh Food:** People should have easy access to fresh, organic produce and, wherever possible, explore how they could contribute to its availability.
- E. Public services:** Projects should ensure that people can access quality local facilities including health services.
- F. Safe neighbourhoods:** All neighbourhoods should be designed to make people feel safe and to reduce the risk of crime.
- A. Nurturing community life:** Projects should be conceived and managed in order to help nurture community life and to integrate with existing communities.
- B. Virtual spaces:** Projects should make use of IT connectivity to provide services that facilitate social contact and information sharing across the community.
- C. Life/work balance:** Projects should incorporate features that support flexible working patterns in order to reduce the need for long commuting journeys (see 3.2e).
- D. Mixed communities:** Projects should seek to promote a broad mix of people within schemes.
- E. Tolerance and respect:** Projects should, in their management, seek to promote tolerance and mutual respect amongst residents and between residents and the wider community.

1.4

Social Spaces

We expect neighbourhoods to offer spaces that create opportunities for community life to flourish. This requires a clear hierarchy of space from lively public streets to more private secure areas.

- A. Engaging streets and public spaces:** Projects should be designed and managed to nurture a vibrant street life.
- B. Communal courtyards and shared spaces:** Many urban housing types are based on perimeter blocks with communal space at the centre.
- C. Gardens and balconies:** All homes should have access to private external space.
- D. Second living rooms:** Projects should be designed to incorporate inside spaces that can play a role in community life as second 'living rooms'.
- E. Community facilities:** Projects should seek to incorporate and/or support community spaces.

1.5

Promoting Wellbeing

We expect buildings and homes should to be designed to create living and working environments that respond to the paths to wellbeing as set out by the Directory of Social Change. Those not covered elsewhere in the policy are:

- A. Connect:** Project teams should take care to value and preserve distinctive identities and culture in local neighbourhoods.
- B. Take notice:** Designers should ensure that schemes create visual interest.
- C. Keep learning:** Projects should explore the role they can play in promoting opportunities for learning, skills development and new interests

1.6

Supporting Equity

We expect schemes to be designed and managed in such a way as benefits the whole community and builds bridges between existing and new residents and businesses.

- A. Realising aspirations:** Project teams should work with local people to identify, nurture and build on their aspirations for the future and how they could be realised.
- B. Balanced communities:** Project teams should take a balanced approach in order to minimise extremes of income and status within a neighbourhood that may be created by investment.
- C. Access to employment:** Project teams should identify how they can create routes to meaningful and fulfilling employment for local people.
- D. Affordability:** Schemes should not include retail services, housing and workspace that are beyond the affordability of existing residents and workers.

ReGeneration

footprint® Theme 2:



Creating sustainable urban neighbourhoods

With the 'urban renaissance' of the UK's towns and cities achieving momentum of a kind unthinkable even two or three years ago, igloo believes that the time is right to reflect on the processes of regeneration taking place and whether they are capable of creating truly sustainable urban neighbourhoods. Above all, for urban renaissance to be long-term, thought must be given to the attributes which make urban neighbourhoods attractive to the majority of the population.

Underlying this is the need to get to grips with the fundamentals of creating a civilising urban culture. The European model is seen as the very essence of the urban renaissance - with its combination of:

- high density urban living accessible to all;
- strong social contracts to ensure the vitality and quality of the public realm;
- street, community and family life which creates the social glue of neighbourhoods;
- provision of valued community facilities and resources; and
- a diversity of smaller-scale, independent and locally distinct economic activity.

igloo strongly believes that more progress is needed to adapt and nurture these in a UK context.

For the most part, the mainstay of regeneration has been physical intervention to break up social housing ghettos, raise property values and attract inward investment. But with local concerns often centered on issues such as jobs, skills and education, crime, housing and health, high value gentrification and design quality can seem at best an irrelevance and at worst a threat - with the potential to transform an area to the detriment of local people and businesses.

From the outset, igloo has sought to take a different approach, responding to the opportunities created by an area and building on its distinct characteristics. igloo believes that this can deliver a range of benefits both for the Fund - by creating stable, long-term investment opportunities - and also for the local community - by maximising the regeneration impact. The SI policy seeks to realise these benefits by:

- **choosing the right sites** - being ones that are accessible and which have good potential to contribute to physical, social and economic regeneration of the urban fabric;

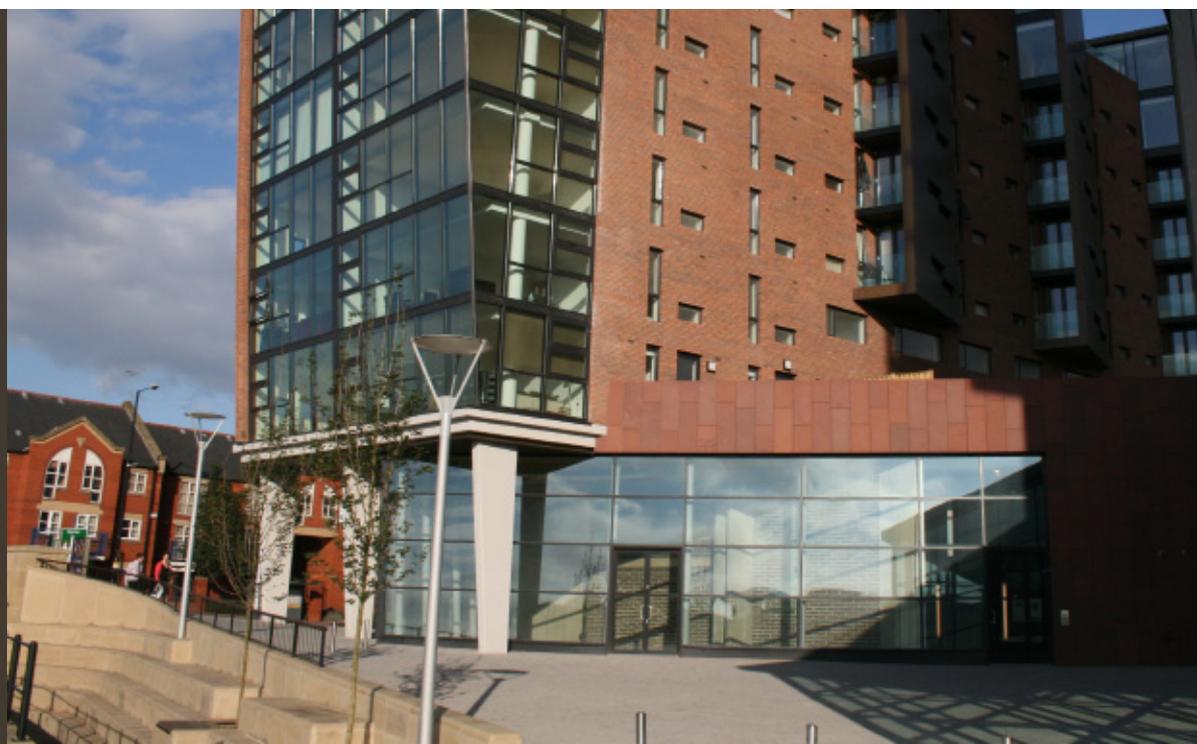
- **carrying out a thorough process of contextual analysis** – focusing not just on the historical and contemporary urban fabric, but getting a real feel for the life of an area and exploring, amongst other issues, its economy, cultural characteristics, its liveability, local hopes and aspirations, and sustainability initiatives;
- **managing a meaningful process of engagement with stakeholders** - being clear from the outset about what can be achieved and looking more widely than just local residents (if there are any) to other communities of interest, such as business clusters, as well as wider social and cultural networks, and
- **taking the long view** - looking at how management structures can be put in place that can identify the communal infrastructure of each new neighbourhood and help to sustain these into the future. This, in turn, to be used to nurture the social capital and creativity of the community - both residential and business.

By taking this approach igloo seeks to use the development process to maximise 'buy-in' and support for regeneration at the front-end, backed up by its longer term commitment to an area. igloo recognizes that the potential benefits are far wider as its experience has shown that well resourced and managed processes can help to:

- create a firmer footing from which to build a livable neighbourhood;
- meet the needs and aspirations of local communities of interest;
- populate a scheme with a distinctive mix of occupiers; and
- encourage greater community stewardship.

In this way igloo will put in place the right ingredients to create livable neighbourhoods that maximise an area's potential.

Islington Wharf,
Manchester



A further vital ingredient in sustaining regeneration is a strong economy. Whilst most would agree that job creation and economic activity should be a long-term regeneration aim, in an era of footloose investment and flexible labour markets there is little consensus as to how this can be successfully achieved. Regeneration spending has, in many cases, exacerbated the problem by a short term drive to meet job creation targets.

It has long been argued, by organisations such as the New Economics Foundation, that economic self-determinism is the only firm basis for long-term regeneration. igloo supports this view and believes that its schemes will thrive through supporting a healthy local and regional economy, ensuring that independent businesses can flourish through the local circulation of financial returns. igloo's belief is that for these benefits to be fully realised a number of economic threats need to be countered:

- **Manufacturing decline** - The opening up of EU markets, commodity retailing and the growth of Asian economies has accelerated further the decline of UK manufacturing and engineering. Competitive advantage has been lost in many areas, particularly as prices have progressively been driven down, and survival cannot be guaranteed unless opportunities to add value or create distinctive niche products can be successfully exploited.
- **Inward investment** - Reliance on inward investment has left local and sub-regional economies increasingly exposed to competitive pressures and changes in economic conditions in the EU and global economy.
- **Service sector** - Moves towards flexible service sector employment have hastened the loss of tacit knowledge, skills, apprenticeships and above all an entrepreneurial culture that used to sustain the local economy in a range of traditional sectors.
- **Commodity retail** - The growth of large supermarket chains and the accompanying commoditisation of both food and non-food goods has forced the decline of many high street retailers - with an accompanying loss of small retail culture - and pushed UK farmers to the brink of bankruptcy.
- **Retail multiples** - Whilst the urban renaissance creates significant opportunities to populate mixed use blocks, the need for large pre-lets and financial covenants means that many schemes tend to attract an identikit mix of multiple retailers.

A distinctly different approach is needed - one that has formed the basis for many of the most successful and vibrant regeneration projects in the UK, from grass roots schemes such as Coin Street and Trinity Buoy Wharf in London to public-private sector schemes such as Temple Bar in Dublin, the Custard Factory in Birmingham and the Round Foundry in Leeds. Creating the right conditions for independent economic activity to thrive is key, based on an understanding of the barriers that small businesses face, the distinctive opportunities that can be created, and the contribution they can make to the life of neighbourhoods.



footprint® Principles:

Regeneration

2.1

The right location

We expect our schemes to be located in well-connected, mixed-use urban areas that can be integrated into the wider city and contribute to its regeneration. This relates to the location of the scheme, its connectivity and the way that it is designed to integrate with its surroundings.

2.2

Understanding the context

We expect project teams to understand the local context and to use it as a resource for ideas to make projects more distinctive. We therefore expect projects to demonstrate a thorough process of contextual analysis in order to gather local knowledge.

2.3

Engaging with stakeholders

We expect project teams to engage meaningfully with stakeholders and communities of interest. This will help shape distinctive projects and maximise their contribution to regeneration. We will not support projects that encounter significant and broad-based opposition.

- A. Proximity:** Projects should be located within a 10 minute walk of a local centre with a good range of associated facilities and amenities.
- B. Accessibility:** The project should be located within easy reach of good quality public transport that can provide a high level of accessibility to the wider conurbation and rail network (see also 3.2b).
- C. Permeability:** Schemes should be physically integrated with the surrounding area (see also 4.1a).

- A. History and culture:** The project team should develop an understanding of how the area, its people and cultures have developed over time.
- B. Stakeholder mapping:** The project team should map communities of interest relating to the site and its surrounding area
- C. Wellbeing:** The project team should map the area in terms of issues such as environmental risks, healthy living and sociable spaces.
- D. Regeneration:** The project team should gather local knowledge on the housing market, neighbourhood facilities/amenities and the local economy.
- E. Sustainability:** The project team should identify projects and initiatives in the local area.
- F. Urban form:** The project team should understand the urban grain and townscape of the area.
- G. Local Knowledge:** Project managers should introduce local knowledge into project teams by using local people and consultants where possible.

- A. Engagement process:** An engagement strategy should be devised at the start of the scheme.
- B. Transparency and openness:** The scope for community influence should be clearly set out.
- C. Shaping the brief:** Community stakeholders should be consulted in the formative stages.
- D. Shaping the project:** Consultation should start before major design work has been undertaken.
- E. Designing the project:** The community should be engaged in shaping the project concept.
- F. Wider community involvement:** All schemes should be subject to wider community consultation.
- G. Resolving conflict:** Disagreements should be negotiated in an open and transparent way.
- H. Partnership working:** Project teams should identify opportunities for joint working with local organisations.
- I. Future community:** Project teams should use market research to engage with future occupiers.

2.4

Contributing to the neighbourhood

We expect schemes to make a contribution to the vibrancy and liveability of the neighbourhoods where they are built, making places more attractive both for existing residents and for people moving.

2.5

Managing places and spaces

We will expect projects to demonstrate how provision will be made for neighbourhood management and to encourage stewardship now and into the future.

2.6

Strengthening the local economy

We will expect projects to play an active role in growing and diversifying the local economy and in supporting a creative, entrepreneurial and forward thinking business culture.

- A. Housing Market:** The project team should identify opportunities and shape proposals to respond to local housing needs, choices and aspirations.
- B. Facilities amenities and services:** The project team should identify shortfalls in the range of basic provision within a walkable distance and anticipate changes in demand over time.
- C. Public Realm:** The project team should identify and formulate proposals for interventions to improve and/or maintain the quality of the public realm.
- D. Common Spaces:** Projects should look to incorporate facilities and amenities that will foster social interaction between different tenures and businesses, different parts of the community and between residents and non-residents.
- A. Accountable management:** The project team should put in place local management structures for buildings, spaces and neighbourhoods.
- B. Being outward looking:** The project team should identify ways of supporting the wider community and neighbourhood management activities.
- C. Resource ongoing management:** The project team should establish a self-sustaining mechanism for funding neighbourhood or building management.
- D. Encouraging future improvements:** Management structures should encourage initiatives by residents to make their neighbourhood more sustainable.
- E. Animating spaces and communities:** The project team should support ongoing programmes to build community and animate spaces.
- F. Thinking ahead:** Estate managers should be involved in project design and developing future management arrangements.
- A. Finding a focus:** The project team should use local knowledge to identify a distinctive economic theme for each project.
- B. Fine tuning the lettings policy:** The project team should adapt the lettings policy based on the chosen economic focus.
- C. Getting the specifications right:** The project team should use their knowledge of local opportunities and needs to design and specify the mix of uses to be incorporated into the project.
- D. Nurturing business cooperation:** Projects should create a business environment which nurtures co-operation and creates opportunities for themed clusters.
- E. Nurturing economic activity:** Projects should contribute to the creation of a thriving local business community in the wider area.
- F. Harnessing inward investment:** The project team should ensure that inward investors take a proactive role in supporting the local economy.

Nottingham - Science Park

Now a major landmark on a main route into the city, No.1 Nottingham Science Park was designed from the outset to raise business park design and environmental standards, with its brown roof aiding insulation and encouraging biodiversity, biomass-fuelled heating system, energy efficient adiabatic cooling system, high energy efficiency standards and use of natural light among its sustainable features. EPC A-Rated, No. 1 significantly reduces running costs for occupiers. Developed on brown-field land, the bold and striking building, designed by award-winning architects Studio Egret West and Hawkins Brown. It extends to approximately 40,000 sq ft, and is intended for occupiers in the science, technology and research sectors wanting space from 1,000 to 20,000 sq ft. The building's public areas have been designed to encourage interaction between tenants and the site's close proximity to the University of Nottingham encourages a two-way flow of research.

footprint® Theme 3:

**Environmental
Sustainability**

Urbanism: the most sustainable form of development?

It is a fact that the majority of people live in urban areas. Whilst the phenomenal growth of towns and cities over the last two centuries has undoubtedly improved people's quality of life, this has come at an increasing environmental cost. Urban society has gone hand in hand with the creation of a consumer society. This in turn has driven increased resource consumption and made people more disconnected from the source of our food, materials and energy and where we dump our waste.

When we look at the resource 'metabolism' of a city such as London – with its reliance on food transported from across the globe, demand for a supertanker of oil every week and the need to transport 23 million tonnes of waste out of the city every year - it seems hard to imagine a less sustainable form of development. But would London's 8 Million people live any more sustainably if they were spread at Garden City densities across southeast England? The answer is most certainly not. It may look greener, but increased distribution and transport distances would more than cancel out any savings. We believe that, with the exception of food growing, pretty much everything can be done more sustainably within cities. This is why we only work in the centre of the UK's main cities on sites that are well connected to facilities and linked by public transport.

This has the following environmental benefits:

- **Density and travel** - With car use driving-up CO₂ emissions, high-density mixed-use urbanism creates the potential to reduce car dependency by ensuring that facilities and amenities are within walking distance, and by ensuring there is critical mass to sustain excellent public transport services.
- **Economies of scale** - The ability to cost-effectively deliver, at a neighbourhood scale, innovative infrastructure and services such as renewable energy, district heating, materials recycling and water recycling in a way that would not be possible for individual homes.
- **Thermal efficiency** - Urban blocks have less heat-loss walls, with smaller ratios of surface-area to volume for individual units than detached or semi-detached properties. There is also potential for symbiosis between different uses, with homes being able to make use of waste heat from businesses.
- **Improved microclimate** - An appropriately proportioned urban grain, combined with street trees and green space, can reduce exposure to seasonal extremes of weather - creating the potential to cut heating and

cooling requirements. Water can also be used to provide passive cooling.

- **Urban economies** - Mixed-use urban neighbourhoods have the potential to sustain a rich diversity of independent retail and commercial activity, which can in turn support shorter and potentially 'bioregional' supply-chains for locally distinctive goods and services, including farmers markets and recycling enterprises.

These urban sustainability principles suggest a range of urban solutions to environmental problems. Our schemes will build on these inherent advantages to create environmentally responsible schemes that minimise their carbon footprint and the environmental impact of their construction and operation. This urban approach to sustainability dictates a slightly different approach to sustainability issues.

- **Location:** The first issue relates to the location of development and the availability of services and transport within easy walking distance of the scheme.
- **Urban networks:** The second issue relates to the systems and networks that the scheme can develop and support. This includes renewable energy generation and combined heat and power networks. It also relates to recycling systems, food growing and distribution and ecological networks.
- **Fabric:** The third issue relates to the fabric of the building, its embodied energy and thermal efficiency as well as the impact of its extraction, manufacture and transport.
- **Management:** The final issue is the operation of the scheme, the behaviour of occupiers and the management of the buildings and their services.

The aim is to encourage project teams to think beyond simply buildings and infrastructure, and to explore how neighbourhood management, services, commerce and retailing can encourage more sustainable patterns of living and working. Our aim is not to promote eco 'bling' but to embody a responsible attitude to the environment into the way that we work on every project.



Manchester - Islington Wharf
ISIS completed construction in 2007 of phase 1 of a 300,000 square foot mixed use scheme (www.islingtonwharf.co.uk) in partnership with Manchester City Council. The scheme is next to the Ashton canal alongside the government's New Millennium Community. New Islington (www.newislington.com), part of the New East Manchester Regeneration area (www.neweastmanchester.com). When complete overall with a new hotel, offices, local retail and waterside restaurant, the Islington Wharf development brings local jobs, new homes and a new future to the abandoned listed lock-keepers cottages.



footprint® Principles:

Sustainability

3.1

Low Carbon Energy

We will expect our projects to deliver buildings that have a very low energy demand and, where possible, have net zero carbon emissions.

3.2

Reducing Car Dependency

We will expect projects to achieve a substantial reduction in car use by reducing the need to travel and making low carbon forms of mobility the first choice.

3.3

Minimising Waste

We expect projects to minimise waste and promote sustainable resource use at all stages in the project lifecycle – from design through to occupation.

- A. A Strategy for Carbon Reduction:** Project teams should develop an energy strategy to minimise energy use and work towards achieving net zero carbon emissions for all energy use associated with a project.
- B. Passive urban design and architecture:** Projects should be designed to reduce energy use and manage the positive and negative effects of the sun, wind and rain.
- C. Low energy design and specification:** Projects should incorporate low energy design and specifications.
- D. Metering and Monitoring:** Design teams should value the benefits from an implemented and comprehensive metering strategy. Good metering is fundamental to the monitoring and targeting process that is, in turn, an essential part of energy management (CIBSE Guide F).
- E. Low or zero carbon energy supply:** Investment should be made in low or zero carbon energy supply technologies and infrastructure.
- A. A strategy for modal shift:** Schemes should maximise the modal share of journeys by walking, cycling and public transport.
- B. Connecting with public transport:** Projects should be fully integrated with nearby public transport links.
- C. Managing car parking:** Projects should aim to minimise car parking provision.
- D. Walking and cycling:** Projects should provide safe cycle and walking routes for frequent journeys and recreation
- E. Flexible living and working:** Projects should support flexible working to reduce commuting and shopping related journeys.
- F. Car and cycle services:** Project teams should explore car clubs and cycle hire schemes.
- G. Green travel plan:** Project teams should work with prospective estate managers to develop a Green Travel Plan.
- A. Designing out construction waste:** Schemes should 'design-out' construction waste.
- B. Construction site waste reuse and recycling:** All site waste should be segregate for re-use and recycling as part of a Site Waste Management Plan.
- C. Working with occupiers to minimise waste:** Projects should identify how they can work with commercial occupiers to minimise waste.
- D. Recycling services for occupiers:** Scheme recycling rates should be significantly higher than the national average.
- E. Community recycling projects:** Projects should identify opportunities to work with service-providers that are members of the Community Recycling Network.
- F. Closing the loop:** Project teams should identify opportunities to specify construction products and recycling services that support-markets for recycling and re-use.

3.4

Thinking About Food

We expect projects to celebrate the importance of food and enabling people to make positive choices about where it comes from.

- A. Encouraging specialist food uses:** Schemes should identify and work with food uses that actively promote local, seasonal, sustainably sourced and fairly traded food.
- B. Animating space with food uses:** Project teams should work to attract and incorporate food markets into public spaces.
- C. Engaging with occupiers:** Project teams should identify opportunities to promote local, seasonal, sustainably sourced, fairly traded food to residents and business space occupiers.
- D. Opportunities for growing:** Project teams should identify and promote local opportunities for occupiers and local communities to become involved in local food growing projects (See also 1.2d.)

3.5

Construction Materials

We will expect projects to minimise the environmental impacts of construction through careful design and sourcing of construction materials.

- A. Specification system:** Project teams with contractors should set up a system to monitor the performance of construction materials against this policy.
- B. Minimising carbon intensity:** All materials will be specified with a view to minimizing their material and carbon intensity.
- C. Local sourcing:** Local construction materials should be specified to minimise transport related CO₂ emissions.
- D. Certification:** All naturally-grown materials should be certified as being from legal and sustainable sources.
- E. Minimising toxicity:** All materials should be specified to avoid exposure to potential health and environmental risks.
- F. Creative reuse:** Project teams should look to creatively re-use buildings and construction materials

3.6

Water Resources

We will expect projects to make efficient use of water resources, particularly in areas of scarcity and environmental sensitivity.

- A. Water resource strategy:** Project teams should develop an overall water resource strategy to make efficient use of local sources of water.
- B. Water saving:** Projects should incorporate measures to minimise water use.
- C. Water recycling:** Systems should be explored to reuse rainwater and wastewater.
- D. Run-off and flooding:** Schemes should be protected from flooding and should be designed to minimise water run-off.
- E. Valued waterscapes:** Sustainable Urban Drainage Systems (SUDS) should be integrated into the urban environment in a way that creates visual interest
- F. Managing waterscapes:** Management strategies should be put in place for waterscapes – both new and existing – in order maintain and enhance their value.

A photograph of a modern multi-story building. The left side of the building features a dark, textured brick facade with several rectangular windows. The right side features white balconies with vertical railings. The sky is blue with scattered white clouds. The text 'footprint®' is overlaid on the right side of the image.

footprint®

Theme 4:

Urban Design

Urban design, not just big architecture

We focus on schemes within the UK's great cities, and through our work we are committed to making these cities greater still. We believe in the value of high-quality design to create places that have lasting. We do this by using the best architects and designers. However they need to work within a strong urban framework established by the principles of urban design which are at the heart of everything we build.

Most of the world's beautiful cities in fact are made up of unremarkable buildings. These buildings are joined on either side to their neighbours, face the street and back onto private courtyards. Large parts of Berlin, Paris and Barcelona consist of such unremarkable buildings often dating from the architectural periods of the 1950s and 60s, which did so much damage to British cities. So why does Barcelona work so much better than Basildon or indeed why do many Spanish, Italian or French towns look and feel so much better than their British equivalents? Their architecture is no better, they wrestle with the same problems of traffic and suffer the same pressures of growth and decline. The reason that they work better is that on the whole their buildings follow a simple set of rules:

- they respected a common building line;
- their height is related to the scale and proportion of the street;
- they provide a continuous urban street wall;
- they spill their activity onto the street;
- they accommodate a range of uses;
- they manage the transition between building and pavement; and
- they generally have active ground floor frontages.

These are the good manners of urban design. They are about streets that end in other streets to create permeable street networks. They are about development that is organised as urban blocks with buildings facing outwards onto the surrounding streets and backing onto creating private courtyards and gardens. They are about urban blocks and city quarters that contain a mix of uses and a critical mass of activity so that the streets feel active and safe. Follow these simple rules and even the dullest buildings can make beautiful urban places.

Historically the masterplan has provided a means to shape urban places and nurture the etiquette of good urban design. Contrary to the views of many architects, masterplanning is not architecture writ large. Too many masterplans

rely on striking architecture for their power. However a good masterplan will create a framework that can be built out over time by many hands, creating a rich and responsive urban area that is not reliant on a few grand architectural statements. At its simplest, a masterplan is little more than a trellis upon which the vine of the city can grow. In many great cities such as Barcelona, New York and Glasgow, this trellis is a simple grid. Their genius lies in understatement. The combination of a grid with good urban manners goes a long way to creating high quality urban areas.

However, igloo believes that there is an opportunity to go further, using a combination of masterplanning and design to create that spark of inspiration. This may be the 10% of buildings that are not plain, such as Gaudi's Casa Mila



in Barcelona. It could also be an irregularity in the grid, such as the diagonal sweep of Broadway in New York. Great urban places are about the variety of streets and public spaces, about concealment and surprise, containment and exposure, vistas and landmarks, focal points and nodes. It is the combination of these elements in Haussmann's Paris or Nash's Regent Street that create special urban places. It is the role of masterplanners to create this specialness.

Masterplans create a three-dimensional envelop for large schemes which can be developed over time in a number of phases. The masterplan should establish scale and principles but say little about architecture. Each phase can then be developed by different architects, maybe a number of architects each adding to the richness and beauty of the whole. In this way we will build small pieces of city that feel like they have grown naturally rather than artificial and sterile 'estates'.

Central to every masterplan is the public realm. The good manners of urban design and the masterplanning process are about creating a clear definition between public and private space and ensuring that the latter is a well-proportioned, attractive stage for public life. Look at any great street or public space such as Regent Street in London, Stroget in Copenhagen or Piazza Della Signoria in Florence and the detailed design of public realm is not what matters. Good street furniture and quality surfacing helps and street trees can be very important but the quality of the space is created not by the details but by the arrangement of buildings.

This is one of the few areas where Mies Van Der Rohe's maxim 'less is more' really does hold true. Too often, detailed urban design clutters and distracts from good urban space. Witness the wall-to-wall crazy paving and chaos of street furniture that characterises most of our pedestrianised shopping streets. Good urban designers understand that streets and squares are not stars that should strut and shout for attention. They are a stage-set upon which the real drama of urban life itself is played out.

These principles will be central to everything we build. Only in this way will we create schemes that add to the diversity of urban life and create places where people want to be. This is central to creating sustainable urban development and will we believe also attract occupiers, raise values and make schemes more profitable.



Leicester - Phoenix Square:

Phoenix Square, a mixed-use building in the heart of Leicester's St George's Cultural Quarter, combines contemporary living space, with an independent arts cinema, digital gallery, media production facilities, café bar, workspace and office studios tailored to appeal to creative businesses. Phoenix Square has been designed by award-winning architects Marsh Grochowski and enables interaction between public, private and transitional spaces by blending the living, workspace and social elements of the scheme. The building makes use of solar hot water systems, ground source heat pump, grey water recycling and natural light wherever possible. The homes are amongst the most energy-efficient in Leicester and have appealed to energy conscious buyers.

footprint® Principles: Urban Design

4.1

Streets as places

We expect schemes to create urban neighbourhoods that are based on a hierarchy of streets that act as places as well as public routes. This will generate activity, creating areas that are busy with life, safer and which can support commercial activity and public services.

4.2

Public Space

We expect public spaces to be well proportioned and scaled appropriate to their function. Shaping streets and public spaces that are full of activity and life will be a key ingredient in the creation of successful urban neighbourhoods.

4.3

Public realm

We expect our schemes to focus on the creation of a public realm that is the stage upon which the life of the city is played out, which accommodates a range of healthy activities and which people can make their own.

A. Permeability of streets: Projects and masterplan layouts should be as permeable as possible taking into account the surrounding context and be located on streets that make clear links through to surrounding areas.

B. A hierarchy of streets: Schemes should respect the existing hierarchy of high streets, secondary and local streets and in larger masterplans should create such a hierarchy.

C. Urban grain and block dimensions: Urban blocks should be no more than 100 metres wide on their longest dimension so that streets are not too widely spaced apart.

D. Street Character: There should be a hierarchy of different characters and dimensions of streets and spaces with the potential to provoke different reactions and feelings – from surprise and delight to intimacy and safety.

A. Building Line: A building line should be set as part of the masterplanning process to regulate the way that all new buildings address streets and public spaces.

B. Enclosure and urban character: The width between building lines, the height of the buildings and the extent to which the street wall is broken or continuous determines the character of the street and will be an important part of the masterplanning process.

C. Sense of place: Masterplans should seek to create memorable spaces by exploiting views, vistas and landmarks.

A. Access from the street: All buildings should be accessed from the street and spill their activity into the public realm.

B. Public realm: The public realm strategy should develop a hierarchy of spaces alongside the street hierarchy and a consistent approach should be developed to the design, materials and specifications of all of these spaces.

C. Open space: Schemes should add value by using green and blue space as part of masterplans to create opportunities for play and recreation.

4.4

Density and mix

We expect schemes to be sufficiently dense and mixed to animate streets, support commercial activity and enhance safety. Buildings should also be sufficiently flexible for uses to change and adapt over time.

- A. Creating urban densities:** Projects should achieve sufficient density of uses to create efficient walkable neighbourhoods and to animate public spaces.
- B. Vertical and horizontal mix:** All projects should include a mix of uses where possible. This creates activities throughout the day and makes for more a robust development.
- C. Flexibility and adaption:** Project teams should consider how well buildings can support changes of use over time.
- D. Access requirements:** Project teams should consider and resolve potentially conflicting requirements for access and servicing from residential and commercial occupiers and associated servicing.
- E. Tall Buildings:** Tall buildings can play an important role in urban, mixed-use schemes, provided that they are carefully designed.

4.5

Quality, diversity and distinctiveness

We expect to creating places that are distinctive in their design and how they respond to their context. Use of a range of designers will introduce new diversity and character into the urban fabric.

- A. Design Diversity:** Design diversity should be introduced into buildings and other key elements of a project concept.
- B. Nurturing new talent:** Project managers should use their commissioning power to create opportunities for new talent including architects, landscape architects and artists.
- C. Design Critique:** All schemes should be subjected to design review at the national or local level.
- D. Valuing heritage:** Projects should seek to value and reference heritage alongside contemporary design.

4.6

A Natural Edge

We expect projects to incorporate a natural edge in order to improve the quality of the urban environment. Green infrastructure reconnects people with nature, creating a healthier urban environment and encouraging a greater respect and value for biodiversity.

- A. Green Infrastructure:** Project teams should develop a Green Infrastructure plan that should be integrated into the overall approach to urban design.
- B. Natural Heritage:** Projects should value and reference natural heritage as part of their green infrastructure plan.
- C. Edible landscapes:** Projects should identify opportunities to incorporate edible landscaping – trees, plants and land that can provide fresh fruit, herbs and vegetables.

