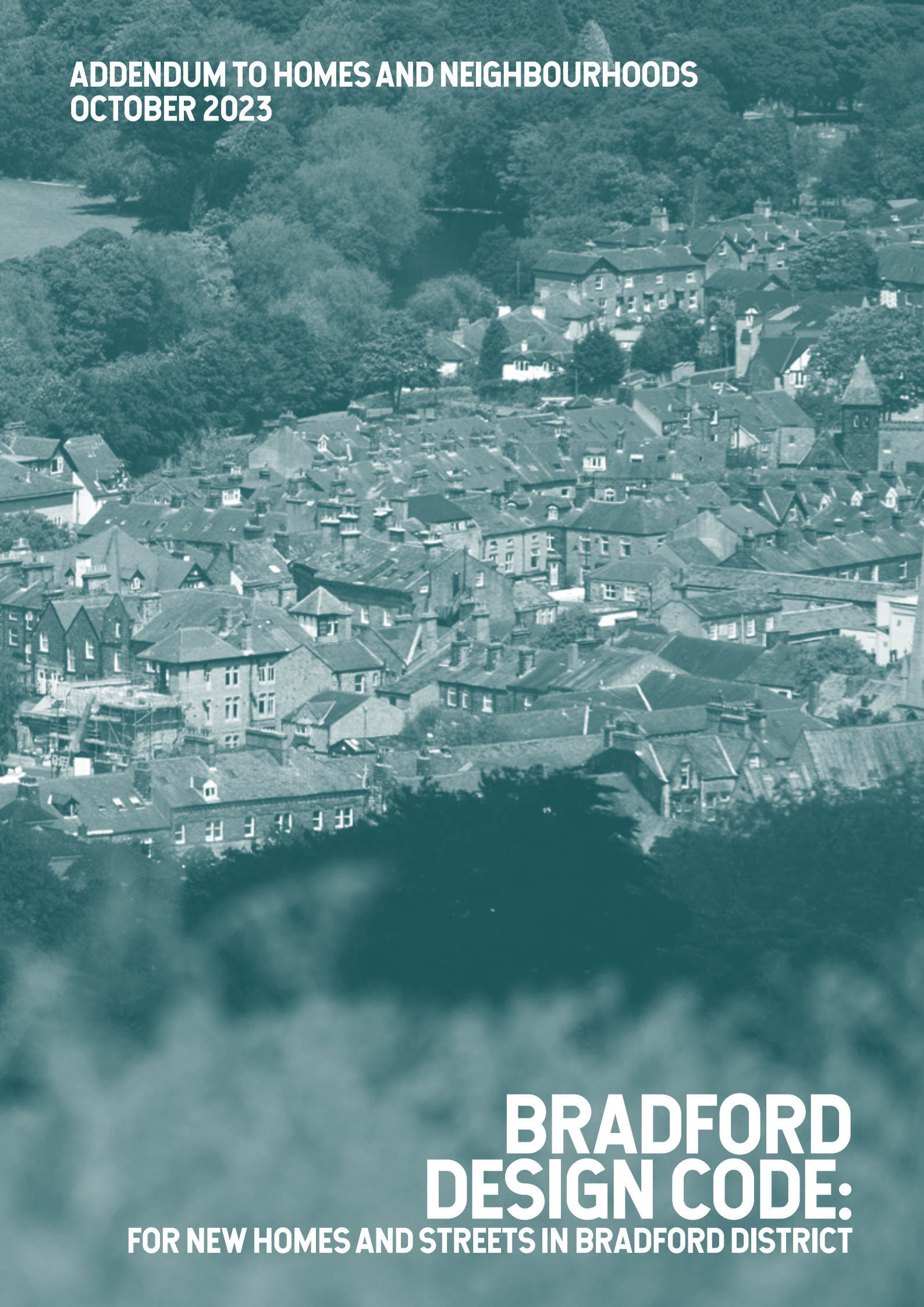
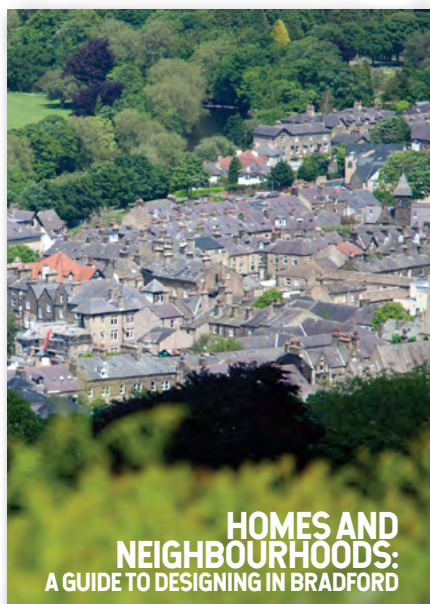




**ADDENDUM TO HOMES AND NEIGHBOURHOODS
OCTOBER 2023**

**BRADFORD
DESIGN CODE:
FOR NEW HOMES AND STREETS IN BRADFORD DISTRICT**



This design code is an addendum to the adopted supplementary planning document, Homes and Neighbourhoods: A guide to designing in Bradford (2020), and should be read in conjunction accordingly.

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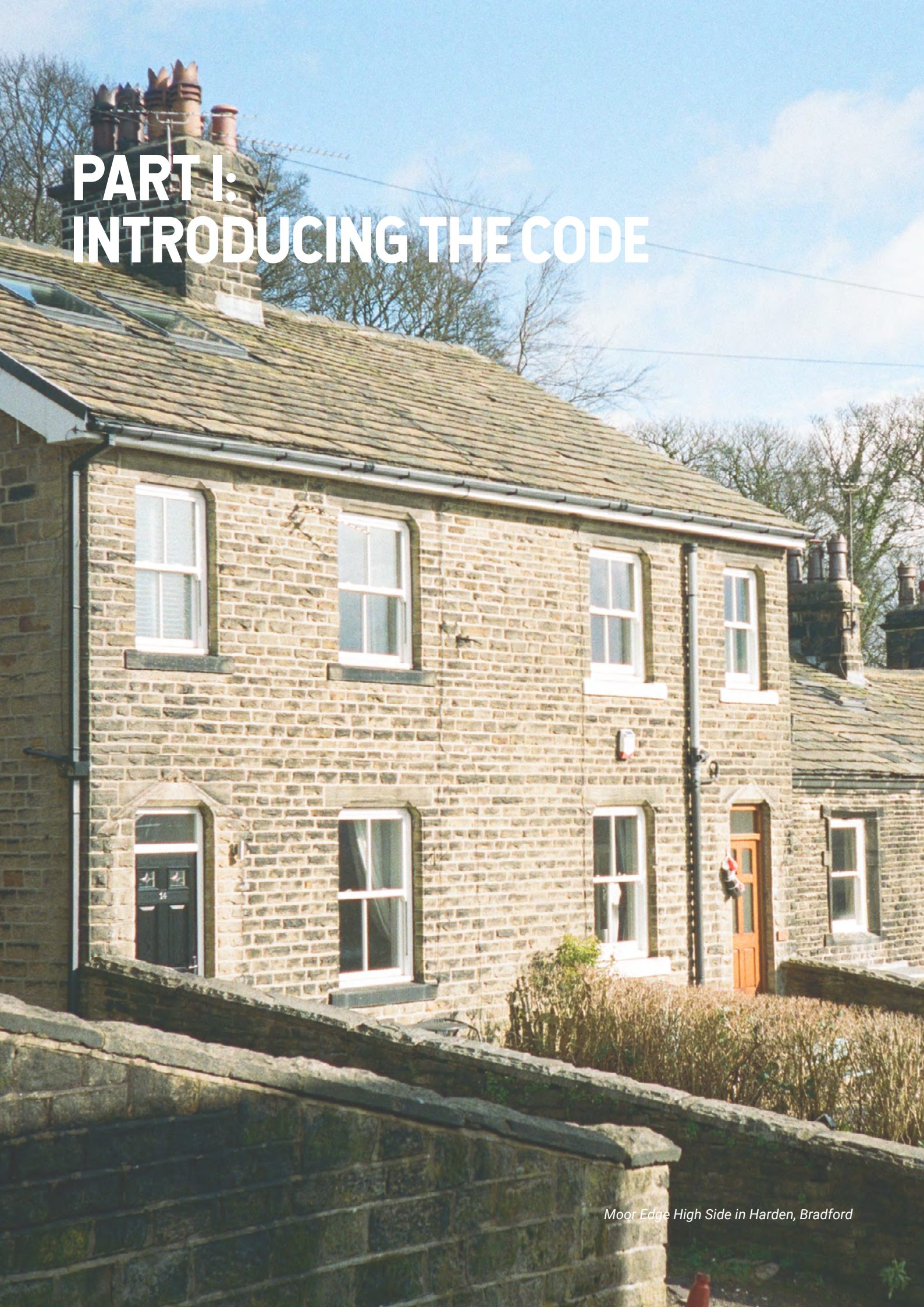
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PART I: INTRODUCING THE CODE

INTRODUCTION

The purpose of the design code is to ensure the quality of new housing development in Bradford District through the planning and design process. Whilst the code requirements will be applicable to all new housing and streets within the settlement boundaries, it has been developed primarily to support the Local Plan's Urban Housing policy (HO3). HO3 promotes intensifying housing density, including increasing the number of family homes, within sustainable 'urban' areas where amenities, including public transport and local facilities, are located within good access, e.g. 15 min walking.

This document forms an addendum to the adopted supplementary planning document, *Homes and Neighbourhoods: A guide to designing in Bradford* (2020), and emphasises key design issues that are still struggling to be incorporated in new development. For example, green streets have not been delivered within many recent development proposals.

Code requirements therefore focus on these issues, and others that emerged through stakeholder consultation that are essential to improving the health and wellbeing of residents. The requirements also aim to help Bradford to achieve its ambitions in becoming a recognised child-friendly city and an exemplar district for clean growth, including making major improvements to air quality and the liveability of the District's diverse urban neighbourhoods.

In focusing on improving the quality of urban housing, the Design Code aims to make urban living more attractive for a wide and diverse range of audiences including young professionals, families, down-sizers and retirees who will all benefit from the local services and

amenities that accompany walkable, and therefore sustainable, neighbourhoods.

Requirements are set out in clear, direct and practical language to minimise the potential for interpretation, with illustrations and/or precedent images to aid both developers and Council officers to easily understand what is expected from new development and accompanying applications.

The document's structure reflects the various 'kit of parts' that make up neighbourhoods, and takes its cue from *Homes and Neighbourhoods* in being ordered in the various scales of consideration. This starts from neighbourhood-scale issues such as the movement network and public open space, to streets, integrating parking, creating a successful transition from street to front door, and finally to the detail of designing homes and buildings.

The following sections of Part I describe:

- Preparing the Design Code - a summary of the stakeholder groups who were engaged throughout the development of the document;
- the Vision and objectives of the Code;
- What is 'urban' in Bradford District?;
- the Coding plan; and
- How to use the Code - referring back to the Coding plan, how code requirements are set out, and where to find supporting information.

This design code was produced as part of the Department for Levelling Up, Housing and Communities' (DLUHC) Pathfinder programme.

PREPARING THE DESIGN CODE

As with *Homes and Neighbourhoods*, this document has been developed in collaboration with key stakeholder groups from across the District to ensure that it responds to Bradford's underlying issues and ambitions for better health and wellbeing outcomes for its residents, and that it is supported by the companies and individuals who will deliver the housing. These stakeholders have included:

- All relevant departments within the Council including Development Management officers and a technical focus group consisting of highways, drainage, landscape, waste, and biodiversity.
- Developers, designers and agents including Bradford Property Forum to provide local industry insight and feedback;
- Community representative groups including older and disabled people, people of minority ethnic backgrounds, and younger people;
- Young Dynamos, a research advisory and involvement group of 15 to 25 year olds with a broad interest in health;
- A youth and health expert group including representatives from Born in Bradford, Act Early, Better Start (Better Place) and JU:MP who are collectively involved in improving children and young people's health and their living environments; and
- Town Councils and Civic Societies.

There have been three key stages of engagement as per the National Model Design Code process stages: 1) Analysis, 2) Vision and 3) Code. Consultation has been designed to be both wide (using an initial online survey and website) and deep (conducting online and in-person conversations and workshops with the key stakeholder groups), and feedback from all activities has been influential.

In addition to influencing the vision, objectives and code requirements, consultation has resulted in a document that is practical to use on a day-to-day basis and enables all those involved in the planning process to understand what is expected. The refinement of code requirements means that the 'essential' codes are the **minimum mandatory requirements** to deliver good and decent homes and neighbourhoods for the health and wellbeing of Bradford's current and future residents.

The Design Code is envisaged to be adopted as a supplementary planning document (SPD), and therefore the requirements set out within support local plan policies. References to relevant policies have been included under each code section.

Formal consultation will be undertaken prior to adopting the Code.

VISION AND OBJECTIVES

The Code's vision and objectives build on the vision and priorities set out in *Homes and Neighbourhoods*, focusing specifically on new homes and streets within urban settings, where the majority of the District's housing need will be focused.

The code requirements set out in Part II have been developed to achieve the vision and objectives, and link back to the design principles set out in *Homes and Neighbourhoods* (for further detail, please refer to p8-13 of *H&N*), and the ten characteristics set out in the *National Design Guide* and *National Model Design Code*.

Our vision for new homes and streets within urban settings is that they contribute towards making life healthier and happier for local communities, enable environmentally-friendly lifestyles, be fit-for-purpose and become part of the established positive local character.

DESIGN CODE OBJECTIVES

MAKING LIFE HEALTHIER AND HAPPIER

- to deliver functional and attractive green and blue streets that provide nature for biodiversity and encourage people to walk, cycle, and socialise whilst accommodating sufficient parking needs;
- to ensure all people have access to space for indoor and outdoor play;

ENABLING ENVIRONMENTALLY-FRIENDLY LIFESTYLES

- to promote walking and cycling as the most convenient and pleasant form of transport and leisure activity;
- to maximise the energy and water efficiency of homes through passive heating and cooling opportunities, building form and orientation, rainwater collection, and sustainable drainage solutions;

BEING FIT-FOR PURPOSE

- to improve the functionality of homes and streets through good internal layout design and integrated storage requirements for bins, cycles and internal needs;
- to address the needs of multi-generational family living and other specific needs of the District's diverse communities;
- to improve the comfort and desirability of living within urban areas through all stages of life;

BECOMING PART OF THE ESTABLISHED POSITIVE LOCAL CHARACTER

- to identify how challenging topography can provide value-enhancing opportunities such as integration into landscape;
- to positively integrate car parking into the built environment; and
- to reinforce the distinctive character of local places through best practice design and planning processes.



WHAT IS 'URBAN' IN BRADFORD DISTRICT?

The term 'urban' has different meanings for different people and contexts. Whilst Bradford District is a diverse area with varied and distinct characteristics, it can be said that the City Centre of Bradford, as well as the town centres and historic cores of Shipley and Bingley, all have urban qualities despite differing in building heights and massing, as well as overall built character.

For the purposes of the Design Code, 'urban' is defined as areas where the built form is the predominant influence on character, generally with **densities of 50 dwellings per hectare (dph) and above**. However, the Code also expands on these areas and defines sustainable urban locations for medium- to higher-density new housing in line with Local Plan policies HO2: Housing Density, HO3: Urban Housing, and TR3: Integrating Sustainable Transport and Development which enshrines 15 Minute Neighbourhood Principles.

These areas are shown as 'inner-' and 'outer-urban' areas on the Design Code's coding plan (refer page 10) and are defined within the adjacent text box (right). As code requirements are District-wide, 'suburban' is also included within the coding plan categories.

**'Urban Terraces' are defined within Principle 1.3 Responding to Character within Homes and Neighbourhoods along with three other Built Character Area categorisations for the District, e.g. 'Urban City Centre', 'Town and village centres', and 'Suburban'.*



Traditional converted mill buildings provide urban densities at 3 to 4 storeys.

CODING PLAN CATEGORIES

● Inner-urban areas include:

- **City, Town and District Centres** as defined by the Local Plan; and
- **areas within 15-minute walking distance of railway stations serving the City and Principal Towns** – Shipley, Bingley, Keighley and Ilkley.

● Outer-urban areas include:

- **Local Centres** as defined by the Local Plan; and
- **areas within 15-minute walking distance of all other railway stations;**
- **areas within the 15-minute walking distance of Centres** (and outside of 'inner-urban' areas - refer coding plan); and
- **areas of existing urban form**, i.e. areas where 'Urban Terraces'*, or terraced housing, already exists

- **Suburban areas:** All other areas within Local Plan settlement boundaries or sites identified on the edges of boundaries.

Note: Development Frameworks and Priority Regeneration areas must be considered according to where they are located within the above categories.

‘Urban’ is therefore not necessarily tall buildings, nor where people have to live and move around in cramped environments without good air and light quality. In Bradford District, ‘urban housing’ in ‘urban areas’ focuses on supporting environmentally, economically and socially sustainable places where a critical mass of people can access a mix of uses and activities without needing to drive a car everyday.

By focusing on code requirements that seek to improve the quality of life for residents in urban environments, the code aims to recalibrate the meaning of ‘urban’ as mixed-use sustainable places. The scale of medium- to higher-density urban housing promoted for this type of environment ranges from 2-3 storey rows of contemporary terraced homes to 3-6 storey developments of townhouses and flats.

The coding plan follows, along with a section on ‘How to use the Code’.

Where tall buildings are proposed, guidance for the appropriate siting of tall buildings can be found in Section 4 of the Bradford City Centre Design Guide SPD (adopted 2006) alongside relevant special design guidance.



Urban mixed-use settings within Bingley (left, photo © Dave Bevis) and Ilkley (right).

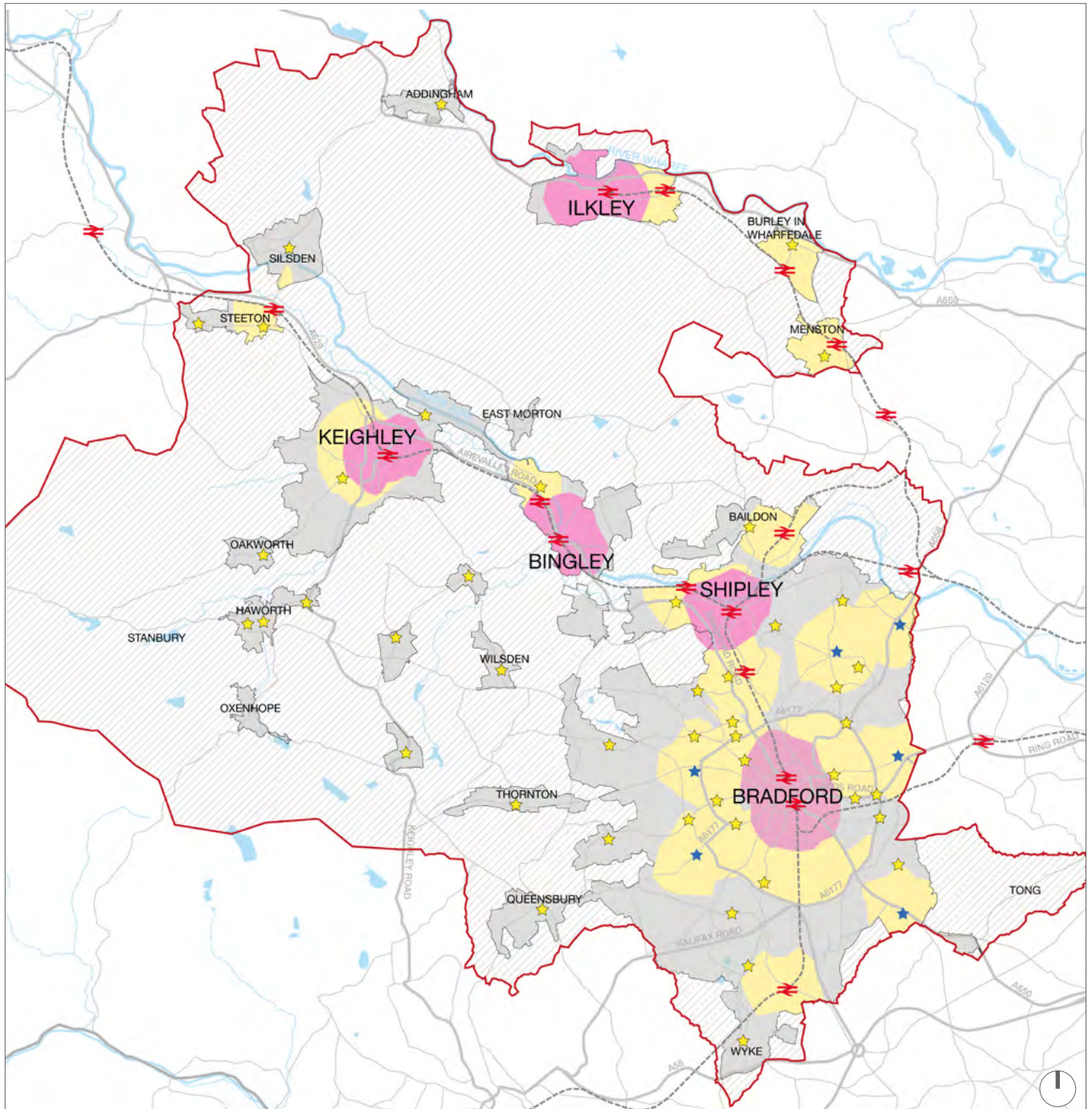


Saltaire village, Shipley, has inspired and influenced many other terraced housing developments within the District.



A contemporary interpretation of Bradford terrace housing on Chain Street alongside a generous area of public open space including informal seating and soft landscaping. (Photo © Bradford Civic Society)

CODING PLAN



CODING PLAN KEY

AREAS WHERE CODE APPLIES	
 Inner-urban	 Bradford Metropolitan District boundary
 Outer-urban	 Road network
 Suburban	 Waterbodies
 District Centre	 Railway line
 ★ Local Centre	 ≡ Train stations
	 Green belt

Refer to [Appendix 3: Detailed coding plan sub-areas](#) for more information.

HOW TO USE THE CODE:

THE CODING PLAN AND THE CODE REQUIREMENTS

Part II of the Design Code sets out the minimum mandatory requirements that must be met by all new-build developments, including streets that provide the opportunity to be retrofitted and improved as a result of highway works or new residential development.

Requirements are categorised into the following sections to provide a 'kit of parts' for local communities, housebuilders and developers to adhere to in order to create good quality, site-specific and contextual proposals that respond to locals' needs:

A.0 CREATING GOOD NEIGHBOURHOODS

B.0 CREATING STREETS

C.0 INTEGRATING CARS AND CYCLES

D.0 CREATING A SUCCESSFUL TRANSITION ZONE - FROM STREET TO FRONT DOOR

E.0 MAKING GOOD BUILDINGS AND HOMES

This structure reflects *Homes and Neighbourhoods* by organising sections in order of the typical design process starting from neighbourhood-wide issues, all the way down to the details of designing buildings and homes.

As an addendum, the Code should be read in conjunction with *Homes and Neighbourhoods* which remains relevant and a material consideration. The code must be read in full as all parts are relevant and reference design principles from H&N.

It will be the responsibility of the applicant to determine - through site and context analysis, character assessment (refer A.6) and planning context appraisal (e.g. "is the development site located within a Conservation Area?") - the appropriate design and form of development for their site, while also considering other policy and guidance, e.g. Bradford's City Centre Design Guide and Sustainable Design Guide SPDs.

At the back of the Design Code, the following information can be found:

- **List of documentation** - a compiled list of the documentation required to demonstrate code compliance
- **Useful references** - a list of documents and hyperlinks to lead users of the Code to other relevant guidance
- **Glossary of terms** - which explain the unavoidable technical jargon that has been used throughout the Code

CODE REQUIREMENTS

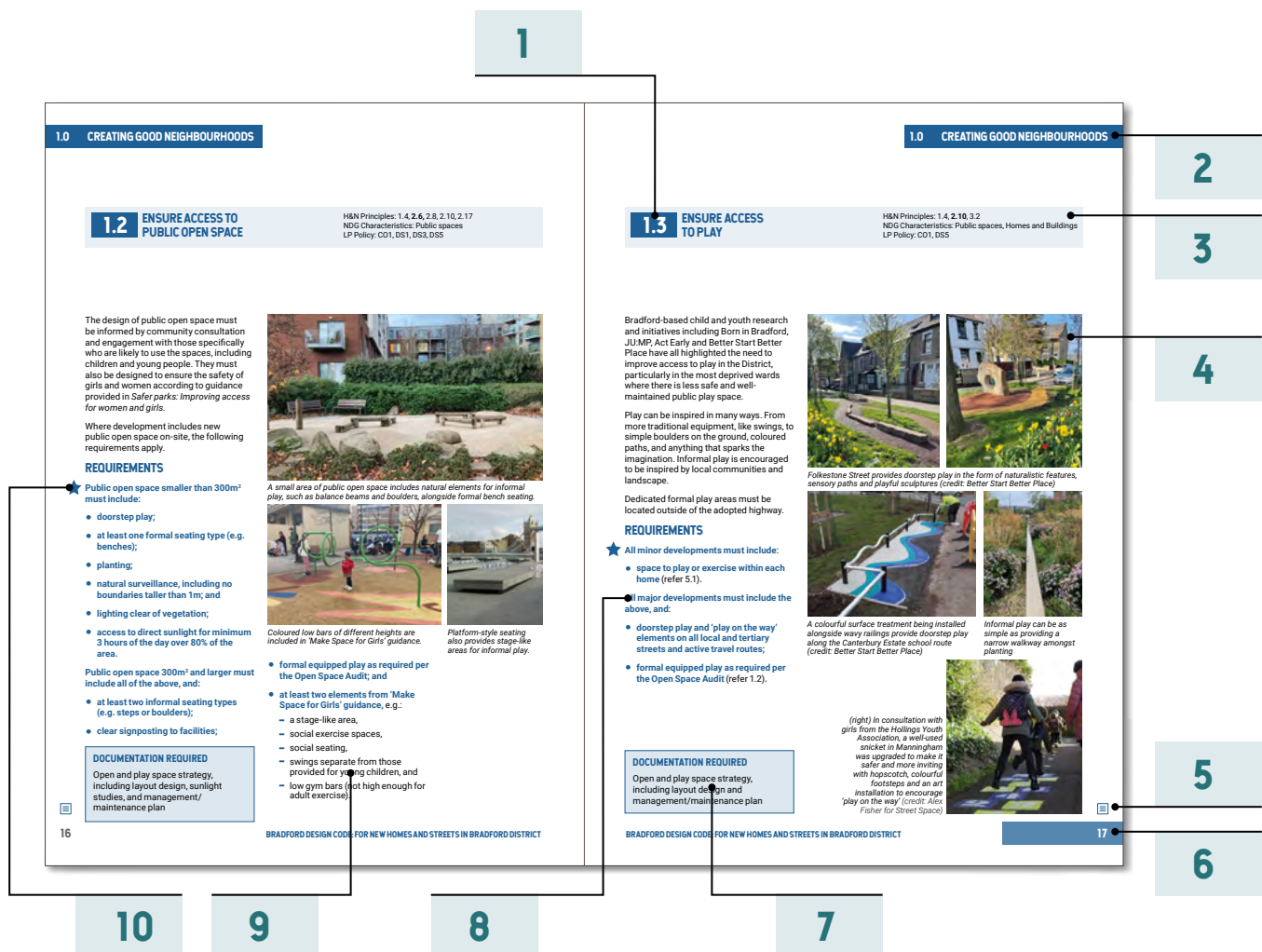
Mandatory requirements ("must") are presented in **bold coloured text**. Any non-mandatory guidance is in regular non-bold text.

Where requirements are specific to:

- inner-urban / outer-urban / all urban or suburban areas, and/or
- houses vs. flats,

this is indicated using underlined wording within the text, e.g. "For flats, ...".

While most requirements apply to all locations across the District, the following sections include requirements specific to their location: A.7 *Achieve gentle density* and C.1 & C.2 *Integrate the car*.



All applicable requirements must be achieved by **major** (10+ units) developments.

For **minor** (1-9 units) developments, a star symbol (★) next to each chapter title indicates if 'all' (chapters D & E), 'some' (chapters A & C), or 'none' (chapter B) of the requirements are relevant within that chapter. Where 'some' requirements are relevant, the star symbol can be found alongside the relevant requirement. Code sections relevant to minor applications are: A.2 / A.3 / A.5 / A.6 / A.7 / C.1 / C.2 / C.3 / Chapter D (all) / Chapter E (all).

The annotated sample page layout (above) indicates as much as possible of the above, in addition to where to find other useful information such as references to Homes and Neighbourhoods principles, National Design Guide characteristics, and relevant Local Plan policies.

DOCUMENT INTERACTIVITY

This Design Code is designed with basic interactive navigation so each section allows users to quickly return to the overall contents page (via a symbol above each page number) and to referenced sections within the text.

Sample page layout of code requirements with key below

KEY

1. Code section number and name
2. Chapter number and title
3. References to *Homes & Neighbourhoods Principles* (H&N), *National Design Guide Characteristics* (NDG) and *Local Plan Policy* (LP)
4. Precedent images and/or diagrams
5. Symbol/button to return to the contents page
6. Page number
7. Documentation required to demonstrate code compliance (refer to the end of the document for a compiled list)
8. Bold text indicating mandatory requirement
9. Non-bold text indicating guidance
10. Star symbol indicating that the requirement is relevant to minor development

PART II: CODE REQUIREMENTS



Illustrative neighbourhood

A.1

PROVIDE NATURE FOR BIODIVERSITY,
SUDS AND AMENITY

H&N principles: 1.5, 2.4, 2.7, 2.8, 2.9
 NDG characteristics: Nature, Resources
 LP policy: EN2, EN3, EN7, DS2

Simply 'providing greenery' is unacceptable. Nature must be included in all new developments and designed and integrated so it can flourish and support maximum biodiversity, water management through sustainable urban drainage systems (SUDS), as well as wider environmental and human benefits such as shade, shelter, air quality, and mental health and wellbeing.

The Urban Greening Factor (UGF) will help to ensure that valuable soft landscape is included within development. It will also help developments to provide 10% Biodiversity Net Gain (BNG) as part of wider legislation.

REQUIREMENTS

- **Major residential applications must meet a UGF minimum score of 0.4.**
 - If unable to achieve 0.4, applicants will be expected to provide justification and demonstrate that 10% BNG has been achieved on-site (refer below) and B.1 Green and blue streets has also been achieved.

The following page includes guidance on calculating a development's UGF.

- **All new residential development must achieve BNG on-site through the inclusion of functional habitats that contribute to green / blue infrastructure. This must include a combination of:**

DOCUMENTATION REQUIRED

Green and blue infrastructure strategy including UGF breakdown and calculation, detailed specification plans, biodiversity gain plan, and long-term management and monitoring plans



Trees and rain gardens with low-maintenance planting create attractive public realm features whilst providing water management and biodiversity potential.

- **street trees and hedges** (refer B.1 and D.2),
- **SUDS, e.g. rain gardens, swales, etc** (refer B.1), and
- **green roofs and walls** (refer C.3 & D.3); and
- **low-maintenance biodiverse planting such as wildflower meadows along all active travel routes to create 'nectar-rich habitat highways'.**

Low-maintenance biodiverse planting is also encouraged within public open space and within street verges, where appropriate.

- **Habitat must be provided for species including at least:**
 - **hedgehog passage routes,**
 - **integral bat boxes at the equivalent of 1 box for every 3 homes, and**
 - **integral bird boxes at the equivalent of 1 box for every home.**

Use of swift bricks are highly encouraged as they provide habitat for a range of species.



An insect hotel integrated amongst planting.



Wildflower meadow planting along an active travel route.



Playful features combined with naturalistic, low-maintenance planting and SUDS create an attractive, engaging and functional public realm that can also provide biodiversity benefit.

HOW TO CALCULATE THE URBAN GREENING FACTOR

Appendix 1 includes the table which sets out the 'factor score' of various green or blue infrastructure, referred to as 'surface-cover types'. For further details and guidance, please refer to **London Plan Guidance: Urban Greening Factor** and **Urban Greening for Biodiversity Net Gain: A Design Guide**.

The UGF is a tool used to evaluate the quality and quantity of natural features proposed as part of a development application, such as planting, waterbodies and green roofs, collectively referred to as urban greening.

The following steps should be followed to calculate the overall UGF score for a proposal:

1. For each surface-cover type in the development, assign the corresponding UGF factor in line with the factor scores.
2. Measure the area of each surface-cover type in square metres.
3. Multiply the factor score by the area of the corresponding surface-cover type.
4. Add the scores together for each surface-cover type.
5. Divide the combined score by the total site area in square metres to determine the scheme's UGF score.

Intensive Green Roof Factor: 0.8 Area: 500m ²	Permeable Paving Factor: 0.1 Area: 1000m ²	Amenity Grass Factor: 0.4 Area: 500m ²
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Total site area = 2,000m²

$$(0.8 \times 500 = 400) + (0.1 \times 1,000 = 100) + (0.4 \times 500 = 200) \\ / 2,000 = \underline{0.35}$$

The above example illustrates how this calculation works in practice. E.g. $(400 + 100 + 200) / 2,000 =$ a UGF score of 0.35 = does not meet the requirement.

A.2 ENSURE ACCESS TO PUBLIC OPEN SPACE

H&N Principles: 1.4, **2.6**, 2.8, 2.10, 2.17
 NDG Characteristics: Public spaces
 LP Policy: CO1, DS1, DS3, DS5

The design of public open space must be informed by community consultation and engagement with those specifically who are likely to use the spaces, including children and young people. They must be well-maintained and designed to create safe environments according to guidance provided in *Safer parks: Improving access for women and girls*. This includes providing clear wayfinding with paths and signage, suitable lighting, and good visibility and openness.

Where developments have more than 300m² of public open space overall, this will be expected to be delivered in at least one large space (meeting requirements below). Multiple small spaces are less usable and more expensive to manage.

REQUIREMENTS

★ **Public open space smaller than 300m² must include:**

- **doorstep play;**
- **at least one formal seating type (e.g. benches);**
- **access to direct sunlight for at least 3 hours of the day over 80% of the area;**
- **where boundaries are used, they must be no taller than 1m to allow for natural surveillance of the space; and**
- **planting.**

DOCUMENTATION REQUIRED

Open and play space strategy, including layout design, sunlight studies, and management/maintenance plan



A small area of public open space includes natural elements for doorstep play, such as balance beams and boulders, alongside formal bench seating.



Fagley play area in Bradford was co-designed by local teenage girls to create a safe and inclusive space for the community.

Public open space 300m² and larger must include all of the above, and:

- **at least two informal seating types (e.g. steps or boulders); and**
- **at least two elements from 'Make Space for Girls' guidance, e.g:**
 - a stage-like area,
 - social exercise spaces,
 - social seating,
 - swings separate from those provided for young children, and
 - low gym bars (not high enough for adult exercise).



Sculpture at Beech Grove, Bradford inspiring playful interactions. (Photo © Better Start Better Place)



Community growing areas are one way of including planting whilst also providing social benefits. (Photo © John Englart)

A.3 ENSURE ACCESS TO PLAY

H&N Principles: 1.4, 2.10, 3.2

NDG Characteristics: Public spaces, Homes and Buildings
LP Policy: CO1, DS5

Bradford-based child and youth research and initiatives including Born in Bradford, JU:MP, Act Early and Better Start Better Place have all highlighted the need to improve access to play in the District, particularly in the most deprived wards where there is less safe and well-maintained public play space.

Play can be inspired in many ways. From more traditional equipment, like swings, to simple, robust and low-maintenance features such as boulders, coloured paths, and anything that sparks the imagination. Informal play is encouraged to be inspired by local communities and landscape. *Better Start Better Place* have installed several successful examples of 'playlets' and doorstep play within Bradford (see images, right).

Dedicated 'formal equipped play' areas must be located outside of the adopted highway. Please refer to the Council's Open Space Audit for these requirements.

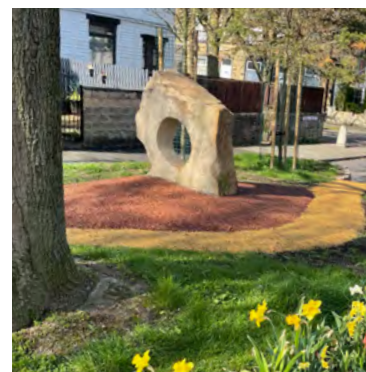
REQUIREMENTS

★ All major developments, and minor developments which include areas of public realm, must provide:

- doorstep play, and/or
- 'play on the way' elements on at least one local or tertiary street, or active travel route.

DOCUMENTATION REQUIRED

Open and play space strategy, including layout design and management/maintenance plan



Sensory paths and naturalistic features in low-maintenance, robust materials creates attractive areas that invite play within Folkestone Street. (Photos © Better Start Better Place)



(left) Speaking tubes are playful installations that attract interaction from all ages.

(Photo © CatalyticAction charity)



A colourful surface treatment being installed alongside wavy railings provides a 'playlet' for doorstep play along the Canterbury Estate school route. (Photo © Better Start Better Place)



(right) In consultation with girls from the Hollings Youth Association, a well-used snicket in Manningham was upgraded with colourful interventions to make it safer and more inviting. (Photo © Alex Fisher for Street Space)

A.4 CREATE A SAFE AND WELL-CONNECTED MOVEMENT NETWORK

H&N Principles: 2.3, 2.5
NDG Characteristic: Movement
LP Policy: TR3, DS4

Making it safer for children to walk and cycle to school and shops is a top priority for Bradford residents. This means providing a well-connected movement network that prioritises pedestrians and cyclists as the most important users of streets, and making it more appealing and convenient to walk and cycle for all.

REQUIREMENTS

- **Streets must *not* create cul-de-sacs for pedestrians and cyclists.**
 - Streets should be linked at either end to other streets or active travel routes, except in instances where site characteristics mean that this is not possible or desirable.
 - ‘Modal filters’, such as bollards and planters can be used to limit vehicle access whilst still allowing pedestrian and cyclist connectivity.
 - Buildings should address active travel routes at entrances for natural surveillance, and wayfinding signage should be provided to make routes easy to find and navigate.
- **Continuous footways and cycle lanes (where appropriate) must be provided over minor junctions where local and tertiary streets meet busier streets, and over all access points to parking (including spaces on-plot) to give clear priority to pedestrians and cyclists over turning traffic, e.g. using ‘Copenhagen crossings’, ‘Dutch entrance kerbs’ or raised level tarmac.**

DOCUMENTATION REQUIRED

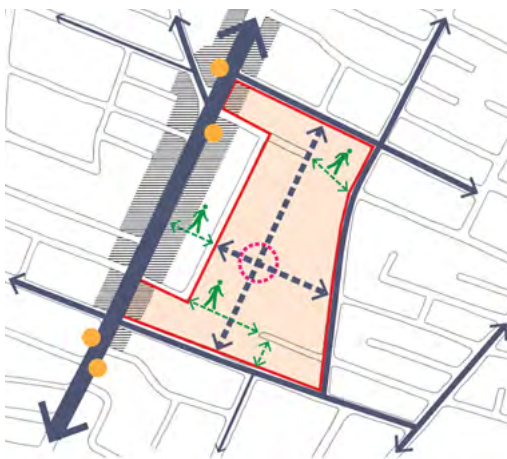
Movement network diagram indicating: key routes and local destinations, connectivity for all modes of travel (incl. crossings), and street types (refer B.5) and status (e.g. adopted/new/retrofitted)



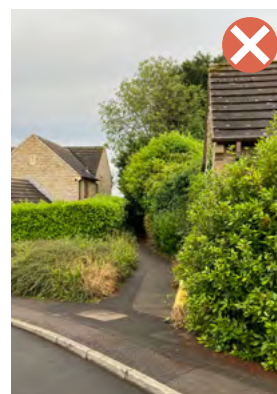
A continuous footway and bollards create a modal filter across a former vehicular junction to give cyclists and pedestrians priority.



Continuous footways over minor junctions send a clear message of pedestrian priority and makes the experience more attractive and accessible.



New development can help to make useful pedestrian and cycle links to increase the overall connectivity of a neighbourhood. (Adapted from National Design Guide)



It is unclear that this path provides a through-route due to general legibility and lack of signage.

A.5 WORK WITH TOPOGRAPHY

H&N Principles: 2.12
NDG Characteristics: Context, Resources
LP Policy: DS2

Bradford's natural topography can present significant challenges when it comes to designing and building development. Minimising groundworks by working with the natural slopes as much as possible can help to reduce the need for substantial retaining features which can undermine development when not integrated well. Instead, retaining features must be designed to positively contribute to open space character.

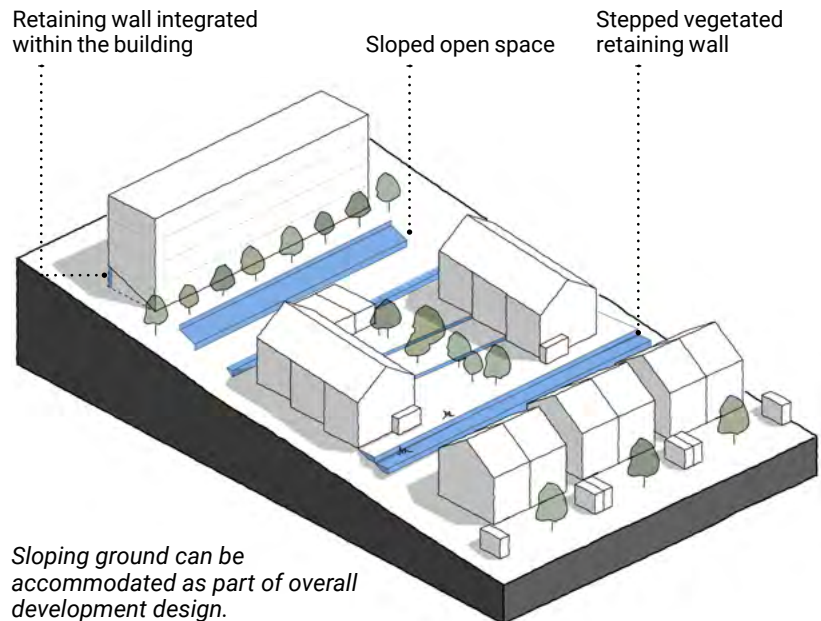
Changes in level can be also used to the advantage of achieving visual privacy within the home and should be considered as part of the design process. For example, footpaths can be slightly lower than the ground floor of adjacent homes to provide additional privacy (refer E.6).

★ REQUIREMENTS

- Retaining walls taller than 1m must be one of the following treatments:
 - natural stone wall,
 - gabion wall, or
 - stepped vegetated wall.

DOCUMENTATION REQUIRED

Topography plan, site sections with height/materials for all retaining



Sloping ground can be accommodated as part of overall development design.



Open space can utilise sloping ground to create terraced seating.



Gabion walls can also provide biodiversity potential.



Stepped vegetated walls are an attractive solution which can contribute to achieving the urban greening factor as well as biodiversity net gain (refer A.1) (Photo © CornerStone Wall Solutions)



Varying levels naturally provide an opportunity to create open space with different zones for play, rest and planting.

A.6 REINFORCE DISTINCTIVE AND POSITIVE LOCAL CHARACTER

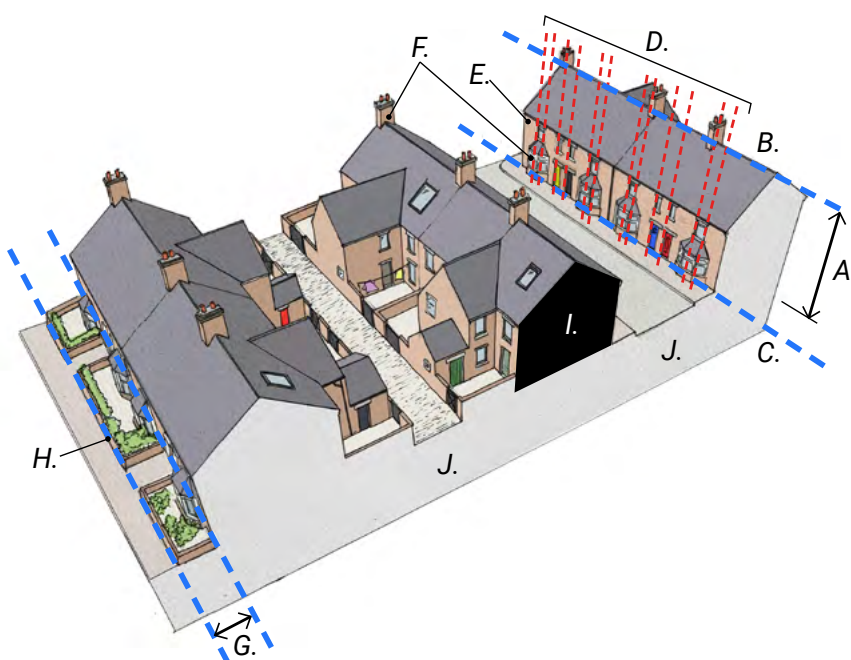
H&N Principles: 1.2, **1.3**, 2.13, 3.7, 3.8
NDG Characteristics: Context, Identity
LP policy: DS3

Ensuring that new development responds and contributes positively to local character is important to Bradfordians. The following character assessment requires applicants to evidence how local context and distinctive features have influenced design.

For minor developments, this clear and positive response to neighbouring buildings is particularly important, especially when it involves only two or three new buildings amongst many.

All new builds should not try to replicate, but create complementary responses with modern and efficient details and design. Innovation is encouraged.

The dominant vertical nature of buildings is seen consistently across the District, through the chimneys, window proportions, and the alignment of building features. This characteristic has therefore been included as a requirement (*note: log burners, and therefore chimneys, are generally not supported in new homes*).



- A. Building height** - from ground level to the highest point of the roof, or sometimes expressed as the number of storeys of the building
- B. Roofline** - the profile of the roof
- C. Building line** - the front edge of the building
- D. Rhythm of frontage** - the width/proportion of how elevation features are spaced
- E. Building material**
- F. Distinctive building features**, e.g. dormers, bay windows, chimneys, quoins, banding, archways, etc.
- G. Front setback depth** - the distance between the front edge of the building plot and the building itself
- H. Boundary treatment** - the design of the physical features that define the plot boundary, in particular the material and height
- I. Scale and massing** - the size and overall bulk/volume of a building
- J. Street and movement network layout**, including pedestrian-only access routes and semi-private/communal circulation areas

The above diagram indicates some of the features and attributes of local character that should be identified as part of undertaking the Character Assessment Checklist (on the following page). The checklist suggests the type of evidence that is required to demonstrate an adequate assessment.

DOCUMENTATION REQUIRED

Site and context analysis, character assessment and design justification within the Design and Access Statement



★ REQUIREMENTS

- Designers must undertake the following character assessment and evidence how this has influenced design proposals within the Design and Access Statement.
- For all developments, the majority of windows must have a vertical emphasis, i.e. be taller than they are wide.
- Where neighbouring buildings exist directly adjacent to the development site, new buildings must conform with the rhythm of frontage, building line and boundary treatments (refer D.2 & D.3).



Mill buildings typically have a clear ground floor, middle and top zone within the overall design, with a strong vertical rhythm of frontage reinforced by window proportions and the distinctive chimney stack. (Photo © Visit Bradford)



This sample elevation study shows: a strong vertical rhythm of frontage; vertical alignment of building features; distinctive bay windows, and archways defining front doors; and the stepping of roofline and sill line which follow the topography.

CHARACTER ASSESSMENT CHECKLIST

Demonstrate and provide evidence within the Design and Access Statement on how proposed development responds to positive and local distinctive features within the surrounding:

NATURAL LANDSCAPE

- ☐ the local topography (refer A.5)
- ☐ views in and out of the site
- ☐ **Evidence:** sections, long-distance views and mapping of local features

URBAN FORM

- ☐ the scale and massing of buildings in the surrounding area
- ☐ typical height changes, e.g. between houses and mill buildings
- ☐ roof line
- ☐ street layout (refer A.4 & B.5)
- ☐ rhythm of frontages along the street (incl. building gaps)
- ☐ **Evidence:** urban design analysis of the above and sections, plans and 3D views showing the proposals in context

RELATIONSHIP BETWEEN BUILDINGS AND STREETS - 'THE TRANSITION ZONE'

- ☐ boundary treatment (refer D.2)
- ☐ building line (refer D.3)
- ☐ depth of front garden (refer D.3)
- ☐ **Evidence:** photographs and plans of proposals within their context showing adjacent streets and buildings

USE OF MATERIALS AND DETAILING

- ☐ primary material/s, e.g. Yorkshire stone or red brick
- ☐ distinctive quoins or banding
- ☐ building features, e.g. porches, bay windows, chimneys, dormers, etc.
- ☐ **Evidence:** built character analysis and justification for proposed materials

HISTORY AND HERITAGE

- ☐ the historic settlement evolution e.g. industrial neighbourhoods, Victorians streets or cluster of mill buildings and workers cottages
- ☐ **Evidence:** historic mapping showing the site boundary

EXAMPLES OF POSITIVE RESPONSES TO LOCAL CHARACTER



Recent development in Chain Street strongly reflects the vertical rhythm of surrounding traditional buildings as well as Bradford's traditional terraced housing. (Photo © Bradford Civic Society)



New development at Bradbury Place, Andover, provides a contemporary response to the gables of surrounding bungalows alongside use of similarly proportioned windows.



New-build flats in Alnwick, Northumberland successfully respond to the traditional local character of its surroundings without appearing pastiche by utilising a prominent chimney stack, bay windows, and similar rhythm of frontage and window proportions. (Photo © Sally Ann Norman, Architect: JDDK Architects)



New mixed-use development at Widcombe Hill in Bath clearly responds to its local context through the roofline design, rhythm of frontage, proportion of openings, and breakdown of scale and massing of a comparatively large site. (Photo © Future Proof Creative, Architect: Stride Treglown)



The repetitive curved and futuristic pods on top of the converted Lister Mills building demonstrates an innovative and contemporary response to the original mill building's large scale and traditional repetitive facade, which features a strong vertical rhythm of frontage, arched windows and intricate detailing particularly around the building's 'crown'.

A.7

ACHIEVE GENTLE DENSITY

H&N Principles: 2.2

NDG Characteristics: Context, Identity

LP policy: HO2, HO3, HO4, HO9, DS3

In line with policy, the required densities below are expected to provide gentle densification across Bradford to help achieve the number of homes required in the District. With the majority of new homes being targeted in the main urban areas, medium-higher density housing must be achieved with preference to 2-3 storey rows of contemporary terraced homes and 3-6 storey developments of townhouses and flats.

In most cases, higher levels of density require higher quality design solutions so that the impact of more people living in a smaller area is met with positive outcomes, such as robust and attractive public realm, landscape open space and conveniently located ancillary uses, such as cycle and bin stores.

The area categories below are defined in the introduction section and within the coding plan (page 10).

★ REQUIREMENTS

- **Inner-urban areas must achieve 80-200dph.**
 - Some areas within Bradford City Centre may be appropriate for taller buildings and therefore higher densities.
- **Outer-urban areas and areas of existing urban form must achieve at least 50dph.**
- **Suburban areas must achieve at least 35dph.**

DOCUMENTATION REQUIRED

Site plans indicating density achieved (dph) and area boundary/s used to establish density



Arden Quarter, located immediately next to Stratford-upon-Avon's railway station, is a mixed-use and mixed-tenure development comprising of 189 homes (69% affordable) including extra-care apartments, and market sale flats and houses resulting in an overall net density of 134dph. Green open space and play areas are also part of the scheme. (Photo © BM3 Architects)



(left) Located by the station, the converted Horace Mills development in Cononley, North Yorkshire, provides a sustainable location for higher density living which is supported by good residential amenity including private open space.



(left) Marmalade Lane co-housing scheme, Cambridge, consists of 42 homes (a mix of two- to five-bedroom terraced houses and one- and two-bedroom flats) and a variety of shared indoor and outdoor spaces and facilities including food growing, communal hall and kitchen, workshop and gym. The overall net density is 42dph.

B.1

GREEN AND BLUE STREETS

H&N Principles 1.5, 2.4, 2.7, 2.8, 2.9
 NDG Characteristics: Nature
 LP Policy: EN1, EN2, EN3, HO3, DS2, DS3

Streets designed with well-integrated “green” (trees, planting) and “blue” (sustainable urban drainage systems (SuDS)) are attractive for people to move through. They manage surface water quality and quantity, and provide the opportunity to increase biodiversity. These features also help to soften a hard urban environment.

REQUIREMENTS

- Streets must include the consistent application of at least two of the following elements along its length (unless where incompatible with site conditions):
 - Street trees
 - Rain gardens
 - Swales
 - Low-maintenance biodiverse planted verge, e.g. diverse grass, wildflower meadows or similar
 - Other equivalent SuDS system combining planting and water management

These must be included in the ‘street furniture zone’ or optional ‘multi-functional lane’ (refer B.2) and can contribute towards the development’s UGF and BNG score (refer A.1).



During engagement, this image received 68% of responses to the question ‘What type of homes and streets would you like to see more of in Bradford?’ It includes trees and low-level planting and parking integrated between. (Photo © GreenBlue Urban)



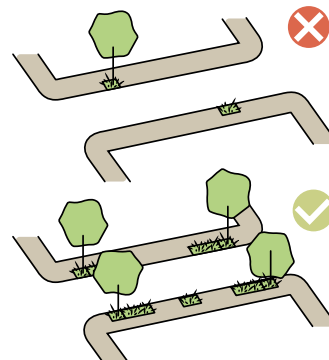
To maximise the value of new planting, these tree pits along North Street, Keighley, are designed as stormwater attenuation and treatment pits. (Photo © GreenBlue Urban)



A rain garden with simple ‘stepping stones’ combines green and blue infrastructure with doorstep play.

DOCUMENTATION REQUIRED

Green and blue infrastructure strategy, detailed design and specifications of SuDS elements, tree/s and planting



(left) Green and blue infrastructure must be applied consistently along the length of a street unless where incompatible.

B.2 STREETS FOR WALKING AND WHEELING

H&N Principles: 1.4, **2.3**, 2.17
 NDG Characteristic: Movement
 LP Policy: TR3, HO3, DS3, DS4, DS5

Making streets clutter-free and attractive for walking and wheeling (including wheelchairs and buggies) is crucial to encouraging active travel. The requirements below apply to all new residential streets and any streets that require highways improvements in residential and mixed-use areas, or due to new residential development.

REQUIREMENTS

To provide an environment that makes walking and wheeling feel safe and inviting, streets must have:

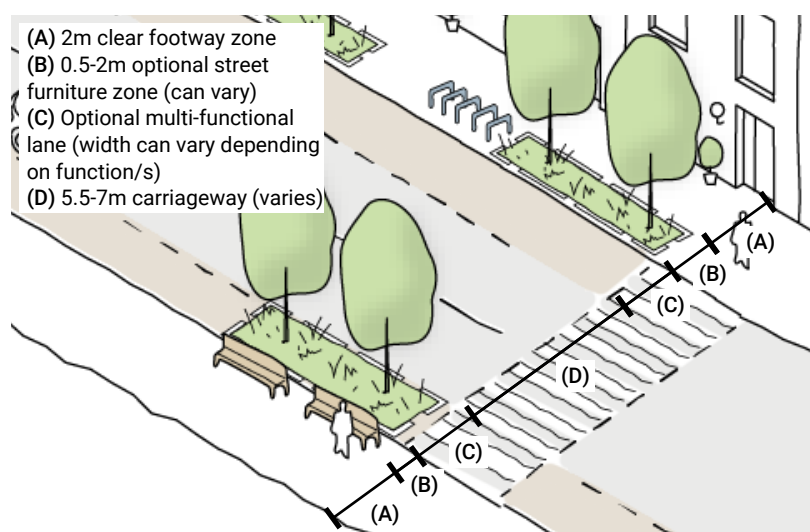
- a speed limit of 20mph or less and be designed accordingly;
- a minimum 2m wide clear footway
 - however, where there are physical constraints, an absolute minimum of 1.2m can be provided, but **not** for a continuous length of more than 6m, and **not** more than twice over a length of 60m; and

Where existing constrained streets are to be retrofit, the minimum acceptable street section should include a min. 2m wide clear footway **on one side**. This can be accommodated with a one-way shuttle within a reduced carriageway width, on local and tertiary streets only.

- a dedicated 0.5-2m wide street furniture zone where street furniture/ planting/etc is provided as part of meeting requirements in A.3, B.1, B.3 & C.2.

DOCUMENTATION REQUIRED

Street plans and sections including indication of the 'street furniture zone' and/or the 'multi-functional lane' (where used)



Illustrative street section indicating requirements (refer to B.5).

Where there is no need for street furniture, a furniture zone is not required.

Alternatively, an optional 'multi-functional lane' between the kerb and carriageway (where space permits) can be used to accommodate:

- planting/SuDS;
- street furniture including doorstep play elements;
- bus stops with shelters; and
- parking/loading facilities.

The 'multi-functional lane' should be at least **2m wide**. Where uses require less than 2m, a street furniture zone may be more appropriate.



A 'multi-functional lane' has been used for on-street parallel parking, tree planting, and doorstep play elements leaving a clear, wide footway alongside.

B.3 INCLUSIVE STREETS

H&N Principles: 1.4, 2.17
NDG Characteristic: Movement
LP Policy: DS3, DS4, DS5

Streets are important areas of public space and must be designed to support public life for all including the mobility-impaired, families, and the elderly. By making streets inclusive with places to rest and meet neighbours, handrails (where necessary), and wide, clear footpaths, they become safe, inviting and friendly places and subsequently encourage active travel.

Seating should be located to support other activities, and designed and positioned to limit anti-social behaviour and potential noise disturbance to residents. For example, seating could be co-located with bus stops, near building entrances and shops, next to trees for shade, or adjacent to play.

REQUIREMENTS

- **Streets must provide formal seating (e.g. with backrests) made of robust materials**
 - no less than every 50m on all streets with gradients over 5%, and
 - no less than every 150m on all streets generally.
- **Informal seating must be provided on all streets**, and may double as doorstep play (refer A.3).
- **All seating must be located outside of the clear footpath width (refer B.2) or in dedicated public open space (refer A.2).**

DOCUMENTATION REQUIRED

Street plans indicating seating type/s and location/s, street furniture details



Formal seating provides a place to rest and contribute to the overall attractiveness of the street.



Formal and informal seating in the form of benches, boulders, and tree stumps are located in front of flats, providing amenity and doorstep play. (Photo © Peter Landers, Architect: Karakusevic Carson Architects)

- **Handrails must be provided at the back of the footway on all sloping streets with a gradient of 12.5% or greater over a distance of at least 50m.**



(top right) Wavy forms and (bottom right) sculptural stones provide doorstep play as well as informal seating.

B.4 STREETS FOR CYCLING

H&N Principles: **2.3**, 2.15, 2.17, 3.3
 NDG Characteristic: Movement
 LP Policy: TR3, TR5, HO3, DS3, DS4 DS5

Cycling should be accessible to all ages and abilities and being able to cycle safely to school should be a minimum requirement for all neighbourhoods. This would reduce a significant number of private car journeys, improve young people's health, and help them to gain skills and confidence as cyclists from an early age. Streets therefore must be designed to meet the Department for Transport's Local Transport Note (LTN) 1/20 for Cycle Infrastructure Design.

For on-street, short stay cycle parking, refer to C.3 *Cycle (and other outdoor item) storage*.

REQUIREMENTS

- **Streets must demonstrate that they have met the requirements within LTN 1/20 by achieving a minimum score of 70% under the 'Cycling Level of Service', no critical fails, and no red-scoring turning movements using the Junction Assessment Tool.**



Segregated cycle lanes should be clearly defined and provided on all primary street and secondary streets, where possible.

DOCUMENTATION REQUIRED

Street plans and sections, assessment of cycle design to LTN 1/20 standards, showing compliance with the CLoS and JAT

B.5 REQUIREMENTS FOR SPECIFIC STREET TYPES

H&N Principles: **2.3**
NDG Characteristics: Movement
LP Policy: DS3, DS4

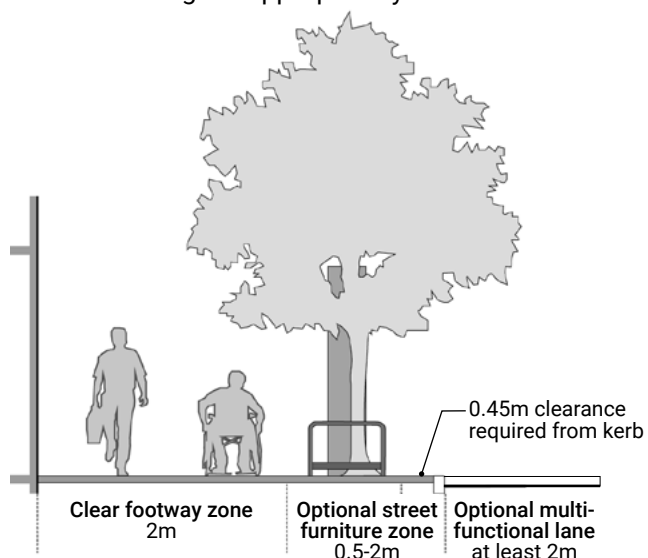
REQUIREMENTS

- Development proposals must provide a plan identifying the residential street types below, and they must adhere to the street features identified within Table 1 on the following page.

(Brackets) indicate the equivalent street type within the Leeds Street Design Guide:

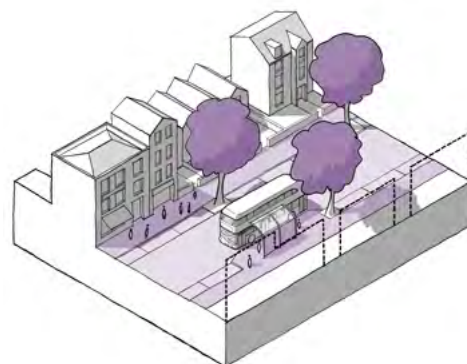
- **Secondary street** (Type 1 Connector Street)
- **Local street** (Type 2 Local Residential Street)
- **Tertiary street** (Type 3 Shared Space Streets and Type 4 Home Zones)
- **Active travel route (or 'snicket')**

Primary streets such as main arterial roads or high streets may occasionally form part of development and these should be designed appropriately.

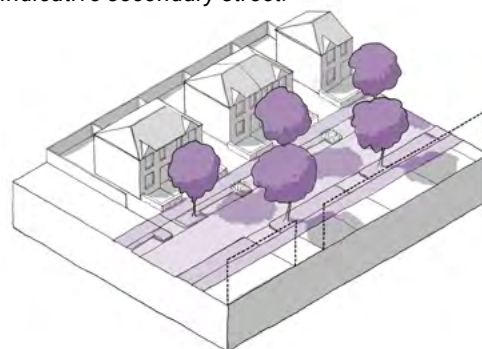


DOCUMENTATION REQUIRED

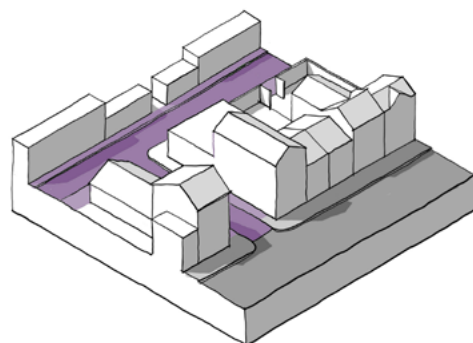
Movement network plan indicating street types, street sections



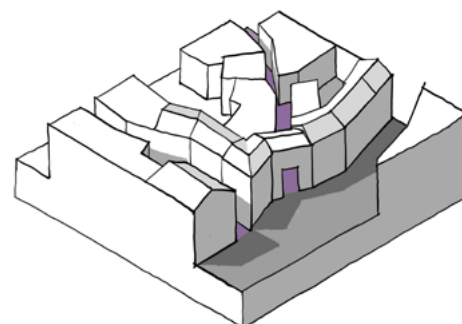
Indicative secondary street.



Indicative local street.

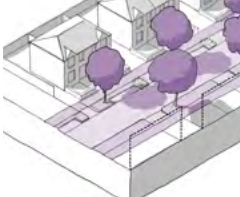
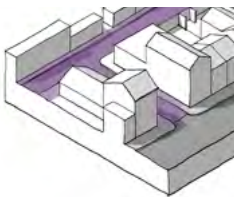
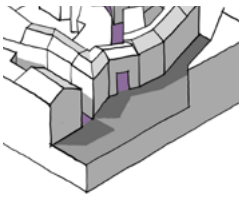


Indicative tertiary street.



Active travel routes, e.g. 'snickets'.

Table 1: Street features (for trafficked street types)

	Secondary street	Local street	Tertiary street	Active travel route
Indicative section				
Key function/s	- Carries local traffic & provides access to neighbourhoods - Includes Neighbourhood Centres, often where schools and community facilities are located	- Residential streets which prioritise active travel and have low vehicle flows and low traffic speeds - Likely to be the most numerous street type in neighbourhoods - Can include modal filters to reduce rat-running but encourage pedestrian/cycle connectivity	- Minor streets for access to small groups of homes or along the rear of properties - Pedestrian priority places to socialise and play - Provides vehicle connections to local and other tertiary streets	- Non-trafficable, for pedestrians and cyclists only - Provides permeability and connections where there are vehicular cul-de-sacs
Maximum design speed	20 mph	10 mph	10 mph	n/a
Min. clear level footway width	2m*	2m	2m - where present	2m, or minimum shared route 3m (see below)
Optional street furniture zone width	0.5 - 2m - as and where required			n/a
Adoptable carriageway width (two-way traffic)	6-7m	5.5-6.5m	5.5m to allow for service maintenance	n/a
Optional multi-functional lane width (refer B.2)	at least 2m - depending on function	at least 2m - depending on function	N/A - 2m wide on-street parking may be incorporated	n/a
Seating (refer B.3 - also streets with 5%+ gradients)	formal seating no less than every 150m; informal seating	informal seating to create social spaces	informal seating to create social spaces	where appropriate
Segregated cycle lane	Y - where appropriate	N	N	If provided, 3m (min. 2m in constrained locations)
Green and blue infrastructure (refer B.1)	At least two of the following: - Street trees - Rain gardens	- Swales - Diverse grass / wildflower verge / similar - Other SUDS system which combines planting and water management		At least low-maintenance biodiverse planting (refer A.1)
Play (refer A.3)	where possible	doorstep play or 'play on the way'		

* min. 3m where identifiably (or expected) high levels of pedestrian activity (e.g. by bus shelters)



C.1

INTEGRATE THE CAR –
WITHIN THE BUILDING PLOT

H&N Principles: 2.2, 2.6, **2.15**
 NDG Characteristics: Movement, Context
 LP Policy: TR5, HO3, DS4

Car parking needs vary between households and over time. Shared and unallocated car parking creates flexibility, avoids hard wiring car parking into developments and reduces the overall need of parking spaces.

The requirements below do not represent the parking standards required by the Local Plan, but provide requirements for the design and integration of car parking spaces. Refer to Part S of the Building Regulations for the electric vehicle charging requirements that must be met.

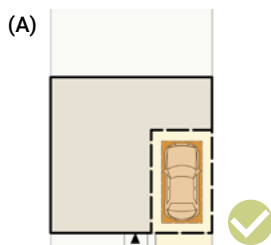
★ REQUIREMENTS

Urban (UR) housing areas

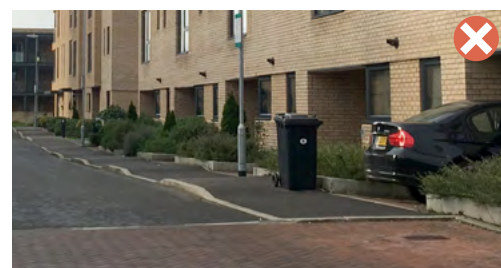
- In inner-urban areas, no more than 1 parking space can be provided on-plot and this must be within the building envelope (e.g. within an integrated garage). On-plot parking between dwellings is not permitted.
- In outer-urban areas, no more than 2 parking spaces can be provided on-plot, however parking spaces are not permitted in front of the building line.
- In all urban areas, a minimum of 50% of private parking requirements must be included in unallocated communal areas. Additional unallocated spaces (including for visitors/deliveries) must be provided within the public realm.

DOCUMENTATION REQUIRED

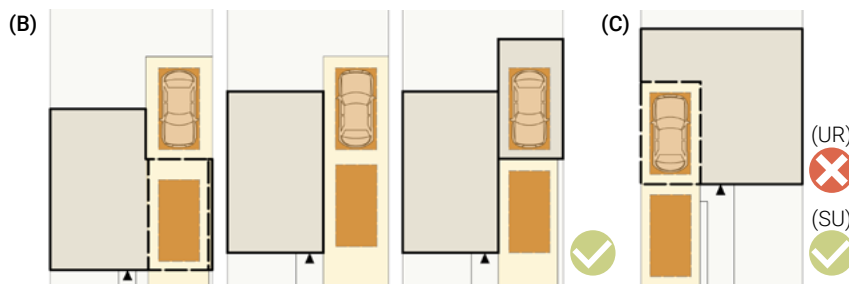
Parking strategy (including layout, management, allocation), detailed plans and sections (where necessary).



In inner-urban housing areas, (A) no more than one parking space may be provided on-plot within the building envelope, e.g. as integrated parking.

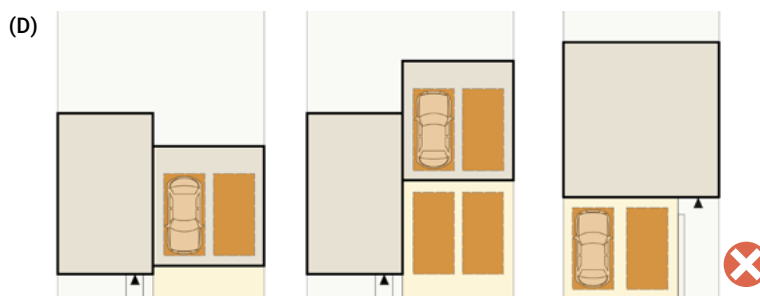


The profile of footpaths and kerbs in front of on-plot parking should be designed to be level for pedestrians (refer A.4).



In outer-urban and suburban housing areas, two parking spaces may be provided. Either (B) with one space inside an integrated garage and one space behind, or in tandem arrangement (one behind the other) to the side of the dwelling, which could include a single garage.

Parking spaces located in front of the building line (C) are only permitted in suburban housing areas only.



In all housing areas, (D) double-width garages and parking areas are not permitted.

Suburban (SU) housing areas

- In suburban areas, no more than 2 parking spaces can be provided on-plot.
- In suburban areas, where more than 1 parking space is provided on-plot, they must be accommodated in tandem arrangement, e.g. to the side of the dwelling or with 1 space within an integrated garage.
- Additional spaces must be provided unallocated in communal parking areas or within the public realm for use by residents or visitors/deliveries, etc.

Garages

- Single-width garages (where counted towards parking) must:
 - have a min. internal width of 3.9m and min. opening width of 3.3m to allow for bikes to be stored and removed easily,
 - be inset or set back from the building line (refer image, top right), and
 - be enclosed by garage doors or full-height gates.
- Double-width garages and parking bays are not permitted for all houses.
- Enclosed or semi-enclosed parking structures must not create blank façades of more than 5m in length that face onto the public realm.
 - Acceptable treatments include providing openings, green walls, or commissioned art murals.

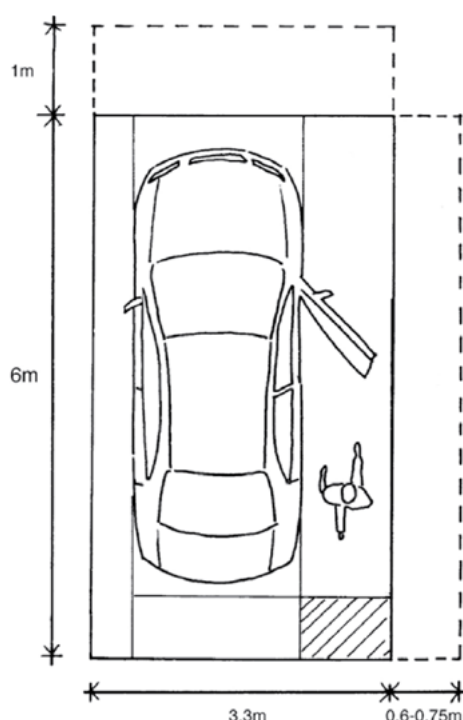


Diagram shows minimum widths for a single-width garage to accommodate a car and cycle storage (0.6m for 1 cycle, 0.75m for 2 cycles adjacent) to allow access without removing a vehicle.



Integrated single-width garages are slightly inset from the building line in Kelham Island, Sheffield, creating a tidy and attractive street scene.



(above left, above, and left) The podium car park at the Climate Innovation District, Leeds, provides allocated parking (available for purchase) whilst mitigating the changing levels across the site. It uses planting and green walls to integrate the structure within the development.



C.2 INTEGRATE THE CAR - WITHIN THE PUBLIC REALM

H&N Principles: 2.2, 2.6, **2.15**
NDG Characteristics: Movement, Context
LP Policy: TR1, TR5, HO3, DS4

Common feedback throughout engagement included needing to balance providing parking and creating attractive neighbourhoods. Anti-social parking (e.g. on kerbs and footpaths) is a significant issue in Bradford which effects the use of footpaths and creates an unattractive environment.

Where electric vehicle charging points are provided within the public realm or on-street, physical infrastructure must be located within the street furniture zone (refer B.2). Like general parking, charging points are more efficiently used when shared and located in communal areas. Provision must meet Local Plan Policy and Part S of the Building Regulations.

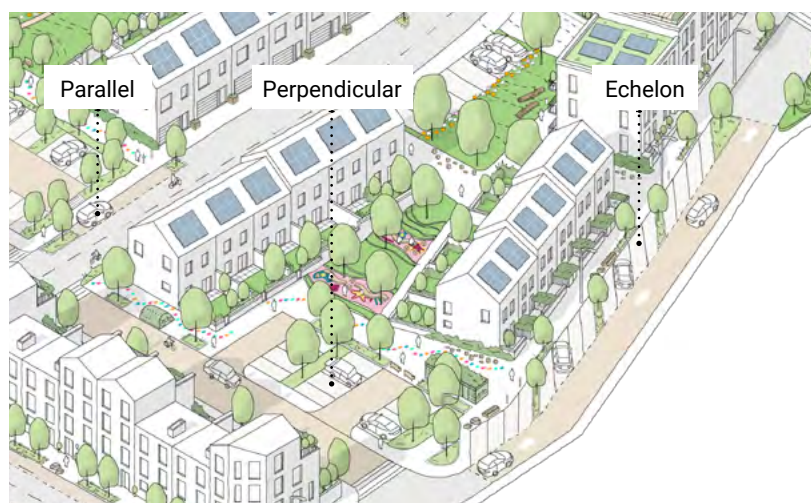
Allocated residential parking provision must not be within the adopted highway unless the responsibility of spaces is taken on by a designated Management Company.

REQUIREMENTS

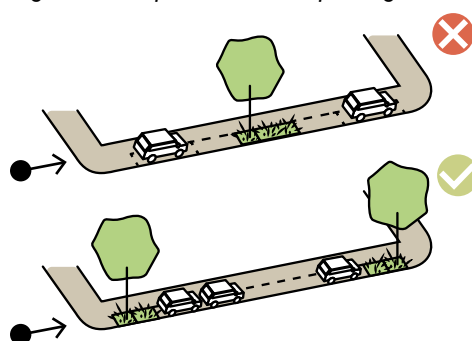
- ★ **Where parking is provided on-street, planting must be provided nearest the corner prior to the view of any parking spaces.** (refer diagram/image, right)
- ★ **Communal surface parking areas must be designed as attractive spaces. This must be achieved by:**
 - **allowing no more than 4 parking spaces to be clustered together without an adjacent planting area** (min. 0.6m width, excluding kerbs);

DOCUMENTATION REQUIRED

Parking strategy (including layout, management, allocation), detailed plans and sections (where necessary).



Unallocated parking areas can be accommodated within the public realm of the development site or on-street in perpendicular, parallel or echelon arrangements to provide flexible parking solutions.



Locating planting closer to the corner of a street junction than on-street parking helps to mitigate the visual dominance of parked cars.



A well-integrated mix of unallocated perpendicular and allocated parking spaces break down the overall street scene and provide a flexible way of accommodating parking needs. (Photo © Proctor and Matthews)

- avoiding the use of black or grey asphalt, except for as the base of a supergraphics design scheme (refer image below);
 - using paving units to define parking bays instead of painted white lines to avoid a standard ‘highway’ appearance; and
 - being overlooked by the windows of at least two homes.
- All major developments with 50+ dwellings must include space for and facilitate provision of shared public car club vehicles at a ratio of 1 space per 50 units, in accordance with guidance from CoMoUK.



In a recent development in Lowfield Green, York, one car club space was provided as a result of the new 140 homes. Take-up within the first two years included 14 bookings by residents, as well as 291 bookings by other car club members within the surrounding neighbourhood. (Photo © CarolineMarketing)



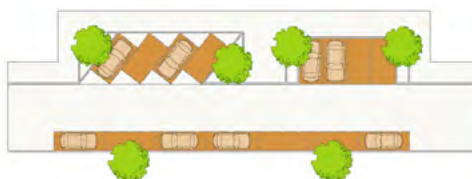
Communal parking areas could take inspiration from Beech Grove Greenway which uses supergraphics to create a colourful environment despite the large area of asphalt. (Photo © Better Start Better Place)



Using a palette of good quality materials to clearly indicate where parking is provided helps to reduce anti-social parking and contributes positively to the public realm even when cars are not present.



(left, and above left) Areas of parking must be softened with trees and planting to provide attractive public realm and outlook for surrounding homes. Planting can also contribute to stormwater management as well as climate resilience by mitigating the heat island effect with shade and cooling (refer A.1).



Trees and/or planting must be used alongside parking.

C.3 CYCLE (AND OTHER OUTDOOR ITEM) STORAGE

H&N Principles: 2.15, 2.17, 3.3
NDG Characteristic: Movement, Homes and buildings
LP Policy: TR3, TR5, HO3

Providing secure, convenient and easily accessible storage for cycles and other outdoor items (including adapted cycles, cargo bikes, buggies, mobility aids, etc) is fundamental to making cycling a feasible option for both commuting and leisure. This can be designed either within the building envelope or externally within secure communal and/or individual storage shelters.

Guidance for both long-stay (e.g. resident) and short-stay (e.g. visitor) cycle parking is included within LTN 1/20 (refer B.4), as well as *Homes and Neighbourhoods*.

★ REQUIREMENTS

- Where external communal cycle storage is provided, this must be shared by no more than 8 dwellings and be no more than 50m from building entrances.
- In communal storage provision (e.g. for flats or houses), additional space of minimum 2.5 x 2.5m must be allocated for the storage of non-standard and all ability cycles (e.g. cargo bikes, tricycles and tandems) and other outdoor items (e.g. buggies, mobility aids, etc.)
- 'Short stay' visitor cycle parking must be located in visually prominent locations (e.g. corners, by entrances, near crossings points, etc.) at regular 50m intervals on average.

DOCUMENTATION REQUIRED

Cycle parking strategy and plans/elevations indicating location and materials of facilities



Communal cycle storage is provided for flats behind a metal screen by the entrance.



Outdoor storage is located by the front door and accessed via the on-plot parking space.

For houses and individual flat storage

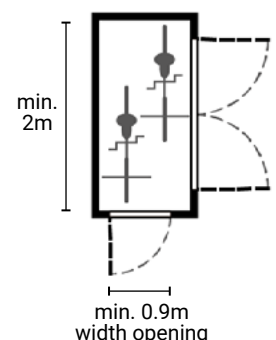
- Where storage is provided within the building envelope (outside of NDSS) or as a separate shelter (e.g. within the front garden), door access must be minimum 0.9m wide, and the space must be minimum 2m deep (or wide, depending on the orientation) - unless provided within a garage (refer C.1 for minimum garage dimensions).



Secure cycle storage for individual flats are located within the public realm.



Short-stay cycle parking located close to the building entrance.



Minimum dimensions for individual private cycle storage, including where provided within the building envelope.



(left) Communal indoor cycle storage for flats includes natural light and space for alternative cycles.

D.1

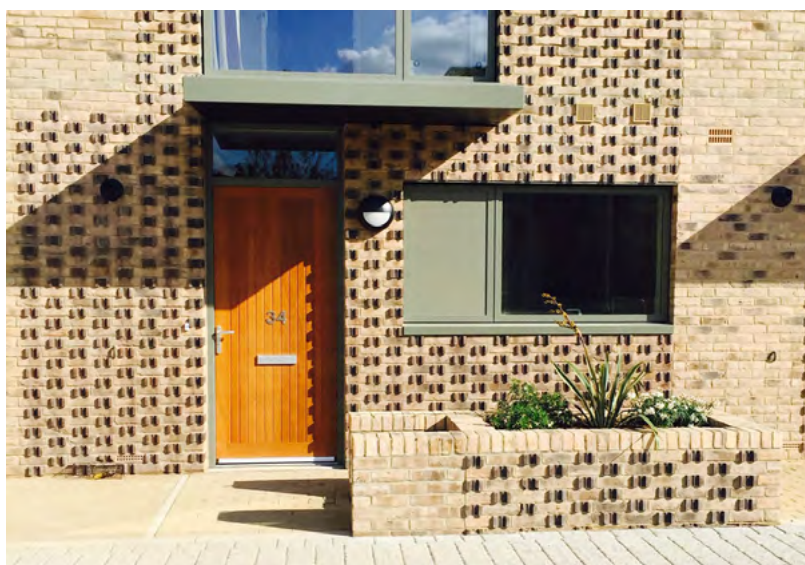
SAFE AND WELCOMING
ENTRANCES

H&N Principles: 2.5, 3.1, 3.7
 NDG Characteristic: Homes and buildings
 LP Policy: H03, DS5

In addition to providing activity and passive surveillance onto streets and surrounding spaces, a building's entrance must feel safe for its user/s at all times.

REQUIREMENTS

- Front doors and building entrances must be visible with a clear line of sight from the street/public realm and be clearly identifiable as entrances.
- Communal entrances (e.g. for flats) must provide two-stage entry for security - for example, initial entry to mailbox/delivery area and secondary entry to access building circulation.
- Communal circulation within flats (including the entrance lobby) must provide some amenity for residents, e.g. seating, planting, shared outdoor terraces, child-friendly spaces, etc.
 - Providing circulation via covered outdoor decks can be a healthier, safer, and more convivial solution whilst also allowing dwellings to be dual-aspect (refer E.1).
- Ground floor flats must have their front door accessible from the street.
- In mixed-use buildings, the entrance to apartments must be separate to those for commercial uses, so that they are still highly visible and secure. Access via service yards and the back of buildings is not acceptable.



A well-defined entrance with canopy to provide shelter, and a contemporary interpretation of a low stone wall boundary with planting.



A simple bench provides basic amenity within the entrance lobby of flats.

(left) Colourful doorways and a playful treatment to entrances creates a pleasant feel within the generous circulation space for flats at Park Hill Estate, Sheffield.

DOCUMENTATION REQUIRED

Plans, elevations and sections

D.2 BOUNDARIES AS CHARACTER

H&N Principles: 1.2, 1.3, **2.5**, 3.7, 3.8
NDG Characteristic: Context, Identity
LP Policy: DS3

Boundary treatments play a huge role in the overall feel and appearance of a street. Having consistent boundary treatments help to unify local character and create a strong identity even where building styles may vary.

Proposals must demonstrate how a local character assessment has informed boundary treatment and design (refer A.6), particularly where new houses are immediately adjacent to existing development.

REQUIREMENTS

- **Front gardens facing onto the public realm must be demarcated by a solid boundary up to 1m high (on average, refer diagram) which consists of one of the following treatments:**
 - A low stone wall
 - A low stone wall combined with railings or hedges/planting
 - A low stone wall combined with both railings and hedges/planting
- **Use of full-height close-boarded fences are not permitted where adjacent to the public realm.**
 - They may be used between back gardens, or as part of an integrated design, e.g. between stone posts or above a low stone wall.



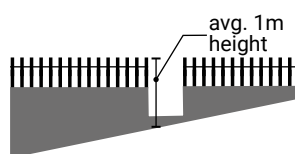
Typical boundary treatments include a combination of a low stone wall and railings. (Photo © Bradford Civic Society)



Full-height close-boarded fences may be used where a minimum depth of planting is provided in front.



Close-boarded fences are not robust and can be damaged easily.



On sloping sites, the average height of front boundaries will be considered (this diagram reflects the image above).

DOCUMENTATION REQUIRED

Character assessment (refer section A.6), plans, elevations, sections

D.3 SETBACKS AS CHARACTER

H&N Principles: 1.2, 1.3, **2.5**, 3.7, 3.8
 NDG Characteristic: Context, Identity
 LP Policy: DS3

Front setbacks vary across the District, from front doors opening straight onto the street, to front gardens that are 3-4m deep, or more where parking is located on-plot, in front of the house. Where possible, setbacks are encouraged to help distinguish the space between public and private. However, where the local character is defined by buildings positioned at the back of pavement, localised setbacks, entrance canopies, or landscape features can help to provide a similar transition.

Proposals must demonstrate how a local character assessment has informed design decisions (refer A.6), particularly where new houses are immediately adjacent to existing development.

REQUIREMENTS

- **Front gardens must be at least one-quarter (25%) soft landscaping to contribute to green streets and support biodiversity net gain (refer A.1).**
- **Where habitable rooms are located along the ground floor frontage, there must be a minimum 1m setback between building and the back of pavement.**

DOCUMENTATION REQUIRED

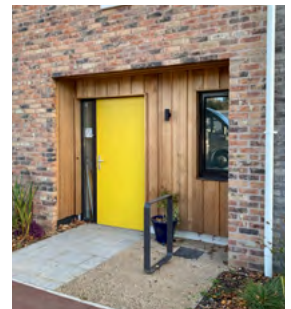
Character assessment (refer section A.6), plans, elevations, sections



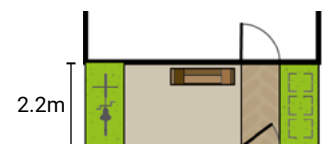
Front gardens have an opportunity to provide good amenity for residents as well as contribute to the look and feel of the street environment.



Front doors open straight onto a home zone and use small raised planters and street trees to create a sense of transition between public and private.



A localised setback and brightly coloured door define the entrance.



(right) Indicative front garden layouts achieving at least 25% soft landscaping: (top) includes green roofs to bin and cycle stores (33%); (middle) includes hedging along boundaries (28%); (bottom) includes planting within a raised low stone wall (26%).

D.4 INTEGRATING BINS AND WASTE

H&N Principles: 2.16, 3.3
NDG Characteristics: Context, Homes and buildings
LP Policy: HO3, HO9, DS5

The untidy presence of bins along a street can undermine an otherwise good quality development and make walking and wheeling less accessible. The need to provide and integrate adequate bin storage was heard throughout engagement to eliminate these common yet preventable issues.

Bradford Waste Services are currently exploring the potential for underground refuse solutions (URS) within the District as their high capacity (e.g. typically 20x wheelie bins) reduces collection frequency making them highly efficient from both carbon and cost perspectives. URS must be considered for all new major developments.

Refer to Appendix 2 for bin container dimensions and rate of refuse per week/ per household.

REQUIREMENTS

- **Shared or individual bin store shelters must be provided for all homes. They must:**
 - be at ground level and provide continuous, smooth and level access between their storage and collection locations, at a gradient of no more than 1:20;
 - be secure for resident access only;
 - be enclosed and screened from public view;
 - **not** obscure the view from the house to the street;
 - include green roofs where located externally (refer A.1), and

DOCUMENTATION REQUIRED

Waste strategy including plans indicating bin storage locations

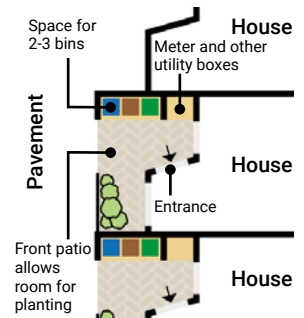
- **The waste strategy must demonstrate how the size and quantity of container types incorporated within plan layouts has been calculated.**
- **Where a house is designed for 7P+, space for an additional 140-litre wheelie bin must be incorporated into the bin store shelter.**



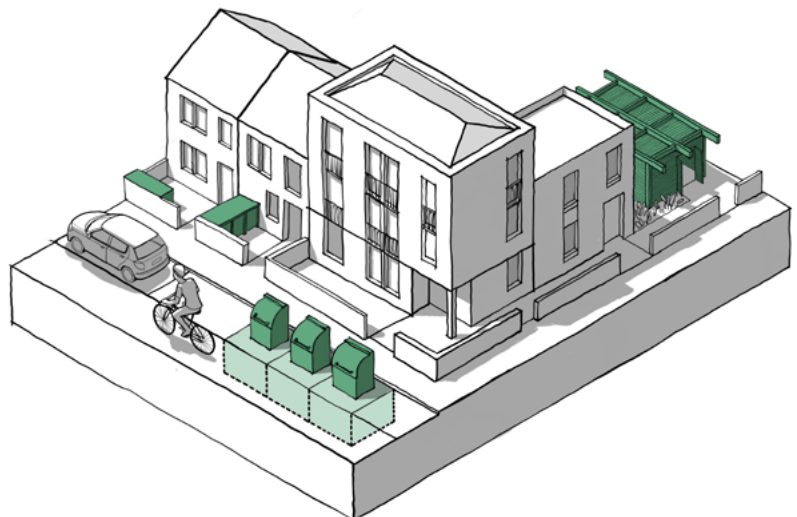
Integrated bin and outdoor equipment store at Dujardin Mews, Enfield. (Photo © MaccleanorLavington)



Integrated bin storage must be included for all new development so footpaths can be kept clear.



Bin stores integrated into the front gardens of terraced houses.



Options for integrating bins include within the front setback of a house, within a separate communal enclosure, or underground.

E.1

PROVIDE FUNCTIONAL INTERNAL
LAYOUTS AND BUILT-IN STORAGE

H&N Principles: 3.2, 3.3

NDG Characteristic: Homes and buildings

LP Policy: HO3, HO9

A common perception of new homes in Bradford is that they are too small and do not provide adequate areas for storage. To make homes fit-for-purpose, internal layouts must be of good, adequate size and planned out well so homes are functional, adaptable, and can meet our everyday needs, e.g. for play, home working, cooking, drying laundry, and relaxing alone or as a household.

Built-in internal storage is also important for a well-functioning home, particularly for small homes, large families, and as a feature of autistic-friendly design.

REQUIREMENTS

- All homes must meet Nationally Described Space Standards (NDSS) inclusive of:
 - Living areas that are:
 - ▶ minimum 14m² for 2P + 1.5m² per additional 1P to allow space for play
 - ▶ minimum 3m wide in a home for 2P, or minimum 3.5m wide in a home for 3P+
 - A second separate living area and bathroom or shower room for 6P+ homes

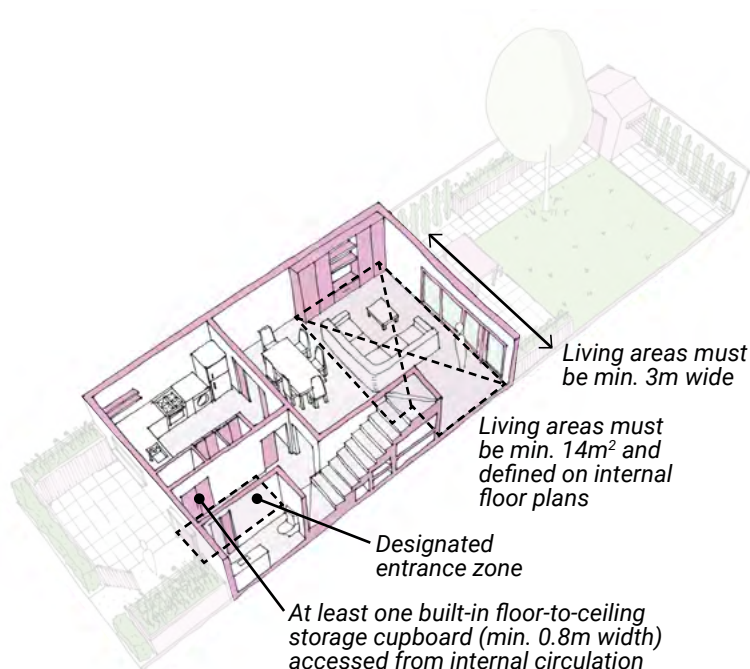
DOCUMENTATION REQUIRED

Fully furnished internal floor plans that indicate: overall gross internal floor area (GIA); floor area, width, and depth of every habitable room; storage areas; and furniture matching number of bedspaces

- At least one built-in floor-to-ceiling storage cupboard accessible from internal circulation space that is minimum 0.8m wide and clear of any fixed services or equipment such as a hot water cylinder, boiler or heat exchanger.
 - ▶ In homes with two or more storeys, the above must be provided on every floor.
- a designated entrance zone inside or securely outside front doors, at least 1.0m in depth, which has room to store personal items such as coats, shoes, etc, by providing either a storage cupboard or additional min. 0.3m to the clear entrance width



This flat includes both a storage cupboard and additional width to the entrance zone providing a convenient location to store personal outdoor items.



Within NDSS requirements (as a minimum), internal layouts must include the above requirements.

E.2 MINIMISE SINGLE-ASPECT DWELLINGS

H&N Principles: 3.1, **3.4**
 NDG Characteristics: Homes and buildings
 LP Policy: HO3, HO9

Dual-aspect dwellings must be prioritised within proposed development as they provide the opportunity for better access to natural light and ventilation which is vital for designing healthy homes. However, where dual-aspect homes are impractical or undesirable to achieve, the below requirements must be met.

Access galleries (or outdoor 'decks') facilitate dual-aspect and are strongly encouraged as an alternative to internal corridors.

REQUIREMENTS

- Where single-aspect homes are proposed due to circumstances that make it impractical or undesirable to achieve dual-aspect, they must:
 - **not** be north-facing;
 - be 1 or 2 bedroom dwellings only;
 - have a minimum floor-to-ceiling height of 2.5m (between finished floor level and finished ceiling level); and,
 - achieve the following codes: E.3 *Provide private open space* and E.7 *Ensure natural ventilation*.



Outdoor open-air deck access at Park Hill Estate, Sheffield, allows flats to achieve dual-aspect, whilst the 'streets in the sky' also creates an additional amenity space for residents with views, light, and an informal space to play and meet neighbours.



Outdoor deck access can provide natural surveillance over communal outdoor areas as well as help to make front doors feel safe and overlooked.

DOCUMENTATION REQUIRED

Site plan indicating any single-aspect dwellings (where they are part of proposed development); building sections



E.3 PROVIDE PRIVATE OPEN SPACE

H&N Principles: 3.1, 3.2, **3.5**
 NDG Characteristic: Homes and buildings
 LP Policy: EN3, HO3, HO9

Private outdoor space allows residents to maintain a connection to nature, as well as a safe space for children to play close by. Family-sized homes would therefore be best accommodated in houses or ground-floor flats where private outdoor space is likely to be more generous.

Where private open space is not able to be accommodated, this must be clearly justified and generous semi-private communal space must be provided (refer E.4).

REQUIREMENTS

- Private open space must be directly accessible from a living area (e.g. lounge or dining area) for at least all 2P+ homes.

For houses and ground floor flats:

- provide minimum 20m² for 2P (+ 5m² per extra 1P) with a hard landscaped area of minimum depth 1.5m to allow sitting out;
- be clearly defined and enclosed by boundaries (refer D.2);
- provide at least 60% soft landscaping; and
- where they back onto public or communal open space (including a snicket or back lane), provide direct access via a secure gate/door to help provide activity and natural surveillance.

DOCUMENTATION REQUIRED

Plans and sections, green and blue infrastructure strategy

For flats:

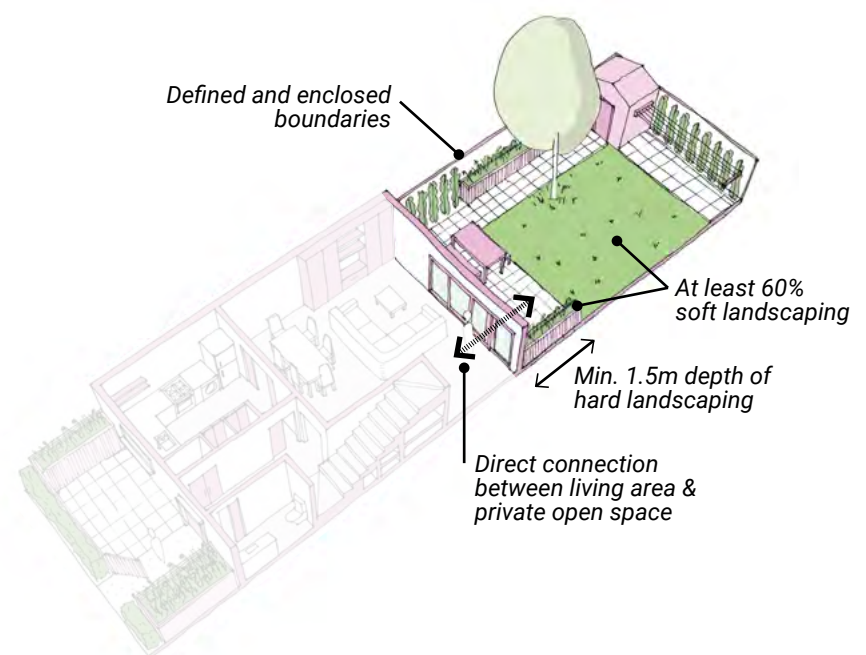
- provide minimum 5m² for 2P (+ 1m² per extra 1P), with a minimum depth of 1.5m;
- where projecting balconies are used, balustrades must not be 100% glazed and at least one side (or 50%) must include a solid balustrade for an adequate sense of shelter.



In-set balconies provide a greater sense of shelter and reduce the likelihood of residents adding their own screening.



(left) Full-height screening should be provided between neighbouring balconies for privacy.



Minimum requirements for private open space for houses and ground floor flats.

E.4 PROVIDE SEMI-PRIVATE COMMUNAL SPACE

H&N Principles: 2.8, 2.10, 3.1
NDG Characteristics: Public spaces
LP Policy: H03, H09

Communal outdoor amenity space provides a convenient location for residents to play, socialise and to access larger areas of open space nearby. It supports the Urban Housing policy (H03) and helps to nurture communities and make neighbourhoods safer and more inclusive.

REQUIREMENTS

- Communal amenity space for flats must be provided and must include:
 - formal and informal seating opportunities (refer B.3);
 - doorstep play (refer A.3);
 - at least one sheltered area (from both sun and rain) of minimum 6sqm;
 - at least 35% of open space to be soft landscaping (contributing towards UGF, refer A.1);
 - access to direct sunlight for at least 3 hours over 80% of the space;
 - lighting; and
 - secure access for all residents, regardless of tenure or mobility.



A wide 'back lane' with back gardens facing directly onto it provides a safe, communal play and gathering space for residents and their families.



(left) Front doors open onto communal gardens with planting and seating which helps to create a sense of community at Heald Farm Court, an extra care development in Newton-Le-Willows. (Photo © DK-Architects, Liverpool)



Well-designed roof terraces include different functions to accommodate the varying needs of residents, e.g. places for socialising as well as for quiet rest.

DOCUMENTATION REQUIRED

Plans and layouts, green and blue infrastructure strategy, sunlight studies, management/maintenance plan



E.5

MAXIMISE ENERGY AND WATER EFFICIENCY

H&N Principles: 1.5, 2.7, 3.4, 3.8, 3.9

NDG Characteristics: Resources, Homes and buildings

LP Policy: EN10, HO9

Energy efficient homes is the top priority for new development in Bradford, as heard through the consultation on this code. Designing for efficient energy and water consumption helps to reduce running costs and minimises the use of resources. UK Building Regulations and the Future Homes standard address these issues, and the following requirements are in addition to those set out elsewhere.

REQUIREMENTS

Development must:

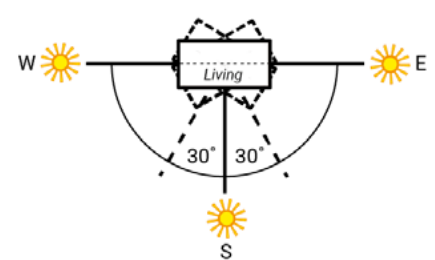
- demonstrate within a Sustainability Statement how buildings maximise their energy efficiency through passive design (e.g. orientation, natural ventilation - refer E.7, solar gain, shading, etc.) and a fabric-first approach to materials and detailing;
- include rainwater harvesting systems (e.g. water butts) for external use (such as for watering gardens) as a minimum; and
- for flats, use on-site renewable energy, e.g. PV panels (or alternative technology), to power internal and external communal spaces as much as possible.



Goldsmith Street, Norwich is an award-winning affordable Passivhaus development achieving a density of 82dph with homes varying from 1 bed flats to 4 bed houses. (Photo © Elli Thomas, Design Council)



On-site electricity generation must be installed for flats to power at least all communal spaces, and is highly encouraged to help power homes as well.



Dwellings should be oriented within 30° of south so that main living areas (including private open space) benefit from maximum natural light and passive solar gain. This will make it more cost-effective to achieve Passive House standards and provide the adequate sun shading to prevent overheating.

DOCUMENTATION REQUIRED

Sustainability statement, site plan, building plans and sections, management/maintenance plan

E.6

ENSURE GOOD VISUAL AND ACOUSTIC PRIVACY

H&N Principles: 3.2, **3.6**, 3.7
NDG Characteristics: Homes and buildings
LP Policy: HO3, DS3

For comfortable living where neighbours live in close proximity, homes must be designed to have good levels of visual and acoustic privacy. “Better sound insulation” was the second most popular answer when Bradford residents were asked what could be improved in their homes.

REQUIREMENTS

- All windows for ground floor street-facing habitable rooms must start at least 1m off the ground to protect the privacy of residents and to reduce the likelihood of closed blinds and therefore inactive frontage.
 - Where varying topography exists on a site, slightly lowering the level of footpaths from the ground level of homes can provide additional privacy.
- Acoustic privacy must be achieved by meeting Building Regulations, as a minimum.
 - To improve privacy and allow different activities (including work and study) to occur simultaneously throughout the home peacefully, consider the use of mediating space between habitable rooms, e.g. built-in wardrobes between bedrooms.



It is characteristic in Bradford to have footpaths lower than front doors due to the varying levels of topography - this also helps to achieve good levels of visual privacy for street-facing habitable rooms.



Full-height street-facing windows can be overly exposing for inhabitants who will keep blinds shut to maintain privacy as a consequence.

DOCUMENTATION REQUIRED

Elevation with dimensions, sound insulation test report



E.7 ENSURE NATURAL VENTILATION

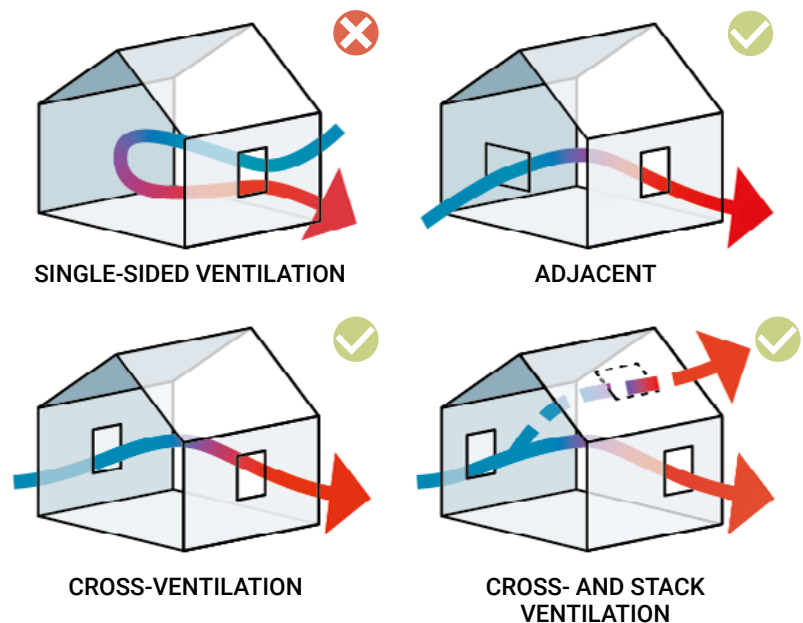
H&N Principles: 3.4, 3.9
NDG Characteristics: Homes and buildings
LP Policy: H03

Poor indoor air quality can have a significant impact on people's health. Ensuring that new homes can be naturally ventilated will help to reduce the risk of damp and mould, as well as reduce the running costs of mechanical ventilation.

Consideration must be given to reduce exposure to outdoor air pollutants, e.g. where homes are located near or along major roads. This should include thinking carefully about where habitable rooms are located in relationship with potential poor air quality sources, as well as how the overall planting strategy can help to mitigate the risk.

REQUIREMENTS

- As a minimum, all habitable rooms must include a secure openable window.
- All dwellings with 5P+ must include a secure openable window in the kitchen and bathroom.



For natural ventilation to be most effective, windows and/or vents should be located on the opposite sides of a building to draw a natural breeze through the space. The best configurations are when openings are slightly offset to maximise the area affected by airflow. Upper openings naturally draw warm air outside. Single-sided ventilation does not produce effective cross-ventilation and should be minimised.

DOCUMENTATION REQUIRED

Floor plans and elevations indicating location(s) of openable windows



'Play on the way' along a snicket in Manningham
(Photo © Alex Fisher for Street Space)

APPENDIX 1 –

URBAN GREENING FACTORS FOR SURFACE COVER TYPES

Surface Cover Types	Factor
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	0.8
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree.	0.8
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	0.7
Flower-rich perennial planting.	0.7
Rain gardens and other vegetated sustainable drainage elements.	0.7
Hedges (line of mature shrubs one or two shrubs wide).	0.6
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6
Green wall –modular system or climbers rooted in soil.	0.6
Ground cover planting.	0.5
Amenity grassland (species-poor, regularly mown lawn).	0.4
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014.	0.3
Water features (chlorinated) or unplanted detention basins.	0.2
Permeable paving.	0.1
Sealed surfaces.	0

For further details and guidance, please refer to **London Plan Guidance: Urban Greening Factor**.

APPENDIX 2 -

WASTE DIMENSIONS AND WASTE GENERATION BY HOUSEHOLD SIZE/TYPE

Container Type	Typical Dimensions (l x w x h)(mm)
140L wheelie bin	500 x 555 x 950
240L wheelie bin	580 x 740 x 1100
360L wheelie bin	480 x 880 x 1100
55L box	395 x 585 x 375
38L box	385 x 585 x 275
1100L 4-wheel bin	1265 x 1000 x 1410
1280L 4-wheel bin	1265 x 1030 x 1410

Table 1: Standard bin dimensions

Type of household	Amount of refuse and recycling storage
Houses	Wheelie bins
House - up to 6P	1x 240L domestic + 2x 240L recycling wheelie bins
House - 7P+	1x 240L domestic + 2x 240L recycling wheelie bins + optional 1x 140L domestic wheelie bin
Flats	Allowance per week
Flats - up to 2P	110L domestic and 110L recycling
Flats - 3 or 4P	160L domestic and 160L recycling
Flats - 5 or 6P	210L domestic and 210L recycling
Flats - 7P+	260L domestic and 260L recycling

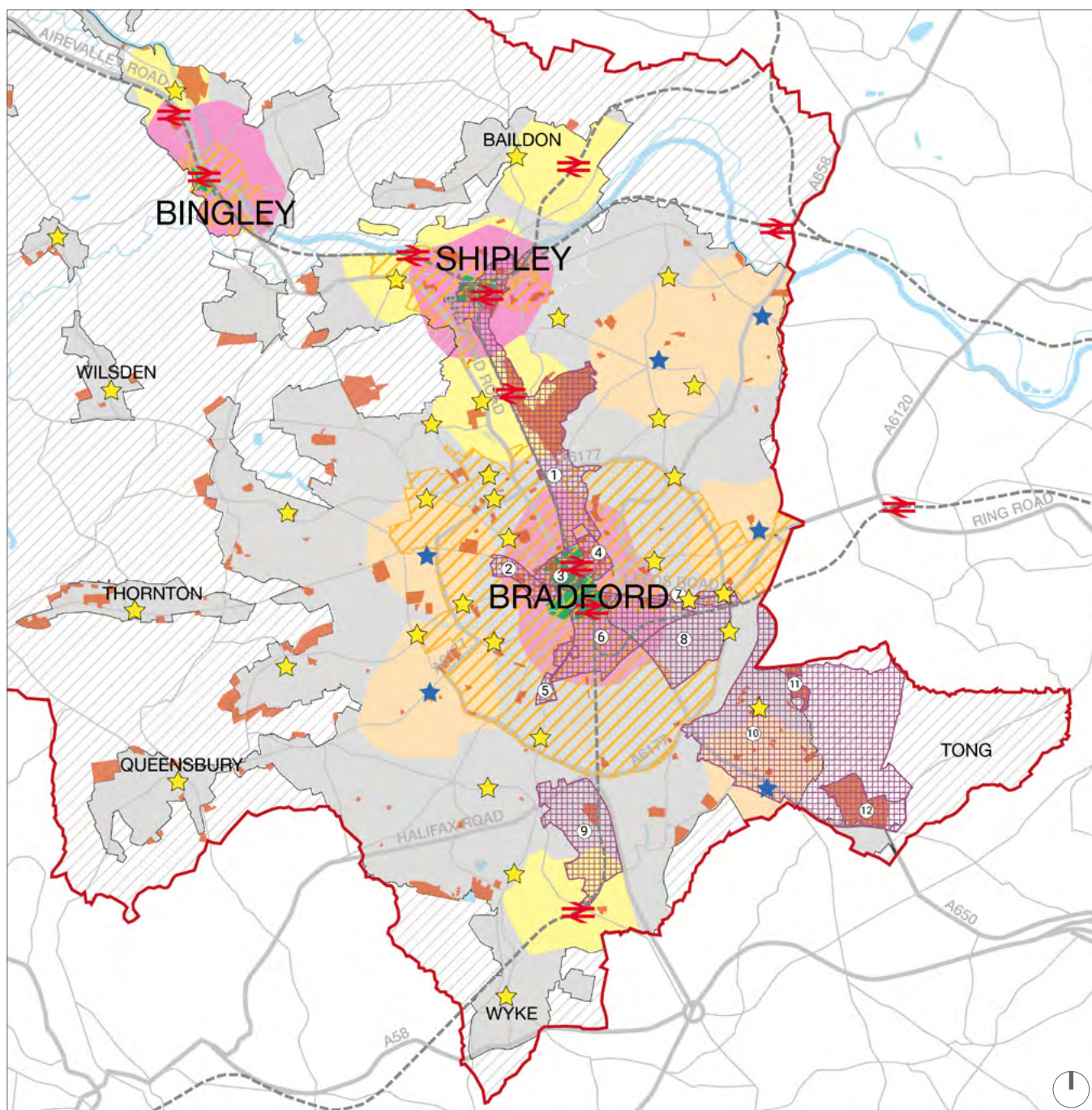
Table 2: Recommended external storage capacities for residential development

Note: Developers should agree the amount of space required and type of containers with CBMDC Waste Services prior to the submission of the planning application.



APPENDIX 3 -

DETAILED CODING PLAN SUB-AREA - CITY OF BRADFORD (INCLUDING SHIPLEY)



CODING PLAN KEY

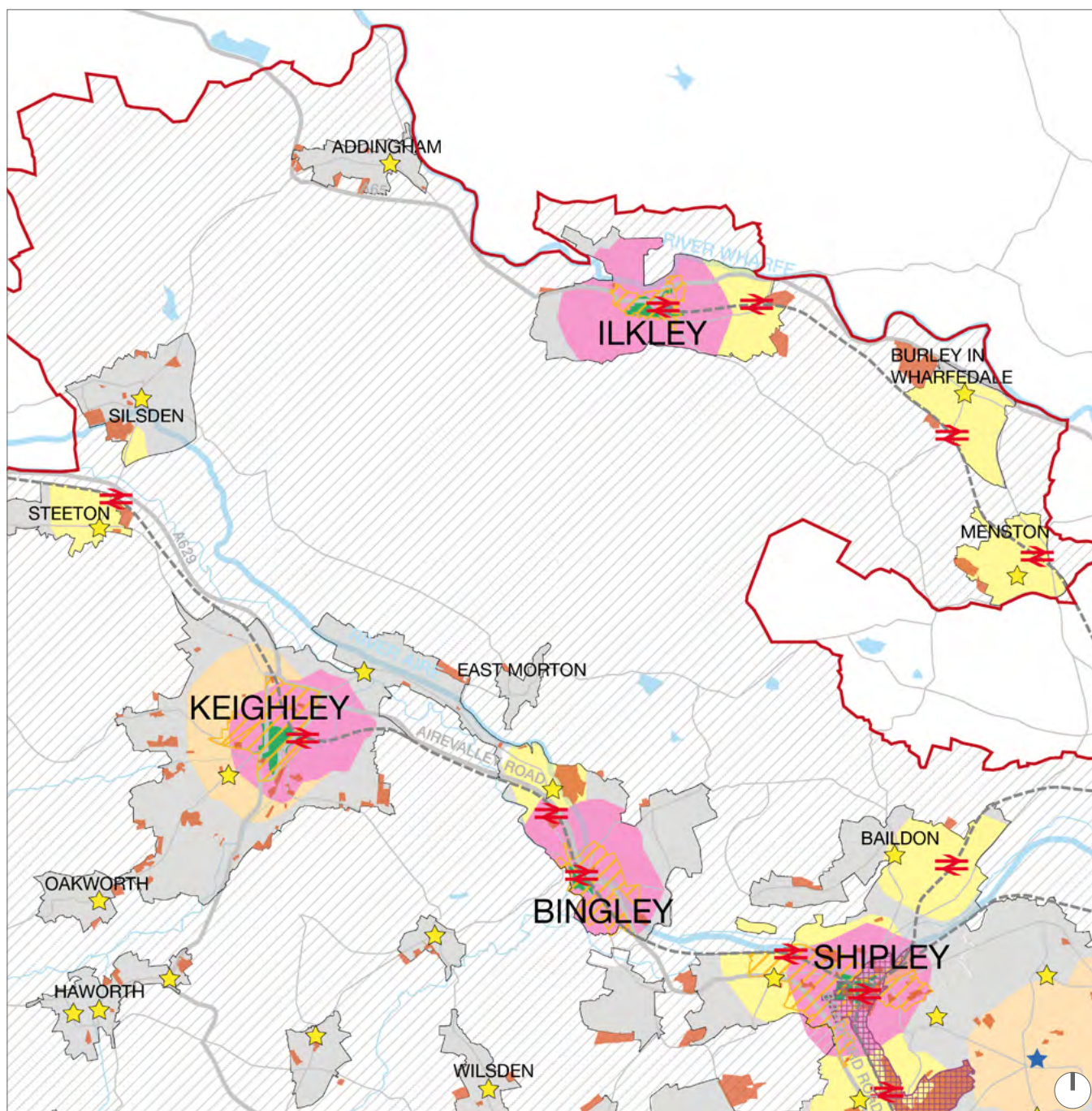
AREAS WHERE CODE APPLIES	
Inner-urban	
	City Centre and Town Centre
	District Centre
	15-minute walking from City and Principal train stations
Outer-urban	
	Local Centre
	15-minute walking from all other stations
	Areas within 15-minute walking from center of Town and District Centres
	Areas of existing urban form
	Suburban

	Bradford Metropolitan District boundary
	Road network
	Waterbodies
	Railway line
	Train stations
	Green belt
	Housing Delivery and Strategic Sites (based on the draft Local Plan as of Feb 2021)
	Development Framework / Priority Regeneration areas

①	Canal Road Corridor
②	Thornton Road
③	City Village
④	Foster Square Regeneration Area
⑤	Manchester Road
⑥	Southern Gateway (extended)
⑦	Leeds Road
⑧	Bowling Back Lane BDZ
⑨	Odsal Growth Area
⑩	Holme Wood Study Area
⑪	Holme Wood North
⑫	Holme Wood South

*Note: 15-minute walking isochrones have been generated by an online service (provided at <https://maps.openrouteservice.org/>) and takes into account topography and physical barriers.

DETAILED CODING PLAN SUB-AREA - WHARFEDALE AND AIREDALE



CODING PLAN KEY

AREAS WHERE CODE APPLIES	
	Inner-urban
	City Centre and Town Centre
★	District Centre
	15-minute walking from City and Principal train stations
	Outer-urban
★	Local Centre
	15-minute walking from all other stations
	Areas within 15-minute walking from center of Town and District Centres
	Areas of existing urban form
	Suburban

	Bradford Metropolitan District boundary
	Road network
	Waterbodies
	Railway line
≡	Train stations
	Green belt
	Housing Delivery and Strategic Sites (based on the draft Local Plan as of Feb 2021)
	Development Framework / Priority Regeneration areas

- ① Canal Road Corridor
- ② Thornton Road
- ③ City Village
- ④ Foster Square Regeneration Area
- ⑤ Manchester Road
- ⑥ Southern Gateway (extended)
- ⑦ Leeds Road
- ⑧ Bowling Back Lane BDZ
- ⑨ Odsal Growth Area
- ⑩ Holme Wood Study Area
- ⑪ Holme Wood North
- ⑫ Holme Wood South

*Note: 15-minute walking isochrones have been generated by an online service (provided at <https://maps.openrouteservice.org/>) and takes into account topography and physical barriers.

APPENDIX 4-

COMPILED LIST OF DOCUMENTATION REQUIRED TO DEMONSTRATE CODE COMPLIANCE

Documentation required (where applicable)	Major / minor / all applications	Code sections
Biodiversity gain plan	All	A.1
Building plans / sections / elevations	All	C.1 / C.3 / D.1 / D.2 / D.3 / D.4 / E.1 / E.2 / E.3 / E.4 / E.5 / E.6 / E.7
Character assessment	All	A.6 / D.2 / D.3
Cycle strategy (including demonstrated compliance with LTN 1/20, CLoS and JAT)	Major	B.4 / C.3
Detailed design and specifications	All	A.1 / B.1 / B.3 / C.1 / C.2 / C.3 / E.6
Furnished internal floor plans	All	E.1 / E.3
Green and blue infrastructure strategy	All	A.1 / B.1 / E.3 / E.4 / E.5
Open space strategy including layout plans	Major	A.2 / E.4
Parking strategy including layout plans	All	C.1 / C.2 / C.3
Play strategy including layout plans	Major	A.3
Management, maintenance and/or monitoring plan (e.g. for biodiversity, open space, play, green/blue infrastructure)	Major	A.1 / A.2 / A.3 / C.1 / C.2 / E.4 / E.5
Movement network plan/diagram	Major	A.4 / B.5
Site and context analysis	All	A.6
Site plan and/or section(s)	All	A.5 / A.7 / C.1 / C.2 / C.3 / D.1 / D.2 / D.3 / D.4 / E.2 / E.4 / E.5
Sound insulation test report	All	E.6
Street plans and/or section(s)	Major	B.2 / B.3 / B.4 / B.5
Sunlight studies	All	A.2 / E.4
Sustainability statement	All	E.5
Topography plan	All	A.5
Urban Greening Factor breakdown and calculations	Major	A.1
Waste strategy including plan(s) indicating storage locations	All	D.4

Code sections with requirements relevant to **minor** applications: A.2 / A.3 / A.5 / A.6 / A.7 / C.1 / C.2 / C.3 / Chapter D (all) / Chapter E (all)



USEFUL REFERENCES

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GLOSSARY OF TERMS

Active frontages: ground floors with window and doors onto the street which create interest and activity, providing passive surveillance and public security.

Biodiversity: a diversity of plants, animals and fungi that make up the nature.

Blue infrastructure: usually related to urban water infrastructure, including rivers, streams, canals and surface water management such as sustainable urban drainage systems (SuDS).

Building envelope: the part of the building that separates the indoors from the outdoors.

Demarcated: separate or distinguish from.

Density: the number of homes in relation to an area of land, often measured as the number of dwellings per hectare (dph).

Doorstep play: small spaces near housing, and within the public realm, specifically designed for play, which may or may not have some small items of equipment, or other features for toddlers and seating for adults. *(adapted from Play England)*

DPH (dwelling per hectare): a unit used to measure density.

Dual-aspect: an apartment with opening windows on two external walls, on different sides of the dwelling.

Dwelling: a home or place of residence.

Energy efficiency: The goal to reduce the amount of energy required to provide heating, light and water, and to run appliances.

Fabric-first: A approach that involves maximising the passive performance of the components and materials that make up the building fabric itself, before considering the use of mechanical or electrical building services systems.

Formal equipped play: play areas such as LEAPs (Local Equipped Area of Play) and NEAPs (Neighbourhood Equipped Area of Play) which have physical equipment such as swings, slides, and items designed specifically for play. Requirements for these areas are typically set out by the Council based on a calculated need and proximity.

Gabion wall: a wall made of inorganic material held together in a 'cage-like' structure.

Grass/wildflower verges: an edge or border made up of diverse grass/wildflower species.

Green infrastructure: a network of multi-functional green space and other green features, urban and rural, which can deliver quality of life and environmental benefits for communities, including trees, planting and sustainable urban drainage systems (SuDS).

Green roofs: a roof that is partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane.

Habitable room: any room used or intended for sleeping, cooking, living or eating purposes. Enclosed spaces such as bath or toilet facilities, service rooms, corridors, laundries, hallways, utility rooms or similar spaces are excluded from this.

Internal layout: how rooms, furniture, windows, entrances and spaces are placed in relation to each other.

Movement network: the combination of vehicular and non-vehicular routes.

Natural surveillance: the ability to observe areas naturally and unintentionally, increasing public security (also referred to as 'passive surveillance').

Playlet (or 'play on the way'): small, durable play installations or interventions that inspire playful interaction and may not be typically perceived as "play equipment", usually located along existing movement routes.

Public open space*: a dedicated hard and/or soft landscaped area that is designed for the purpose of community recreation and enjoyment.

*(*Note: 'public open space' and 'public realm', below, can be used for similar meanings, however for the purposes of this document, 'public open space' refers to the above definition.)*

Public realm: any space that is free and open for the public to access at any time (typically outdoors).

Rain gardens: a planted area designed to absorb excess rainwater.

Retrofit: redesigning/improving something that is already built, e.g. streets or buildings.

Service yard: typically a rear-located space to accommodate vehicles and equipment to aid in building maintenance.

Scale: the size of a building in relation to its surroundings.

Stormwater attenuation: capturing rainwater and releasing it slowly into the drainage network.

Sustainable urban drainage system

(SuDS): physical structures built to receive surface water run-off, including constructed wetlands, detention basins, infiltration devices, permeable surfaces, retention ponds, rain gardens, green roofs and swales. SuDS are designed to reduce pollution and flood risk in watercourses and wetlands, and to improve biodiversity in urban areas.

Swales: shallow, broad and vegetated channels that collect excess stormwater and pollutants.

Tandem configuration: where a car is parked in front of the other (rather than side-by-side).

Topography: the natural arrangement of the physical features of land particularly related to height and level changes.

Trickle vent: a very small opening in a window or other building envelope component to allow small amounts of ventilation in spaces intended to be naturally ventilated when major elements of the design – windows, doors, etc., are otherwise closed.

Underground refuse solutions (URS): a highly efficient system for large quantities of waste or recycling material to be deposited via regular sized bins at ground level and stored underground in large capacity bins.

Urban Greening: increasing the amount of vegetation and biodiversity in urban areas.

Wayfinding: objects or information that help people to find their way or plan their route, e.g. plans, signage, maps and lighting.

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