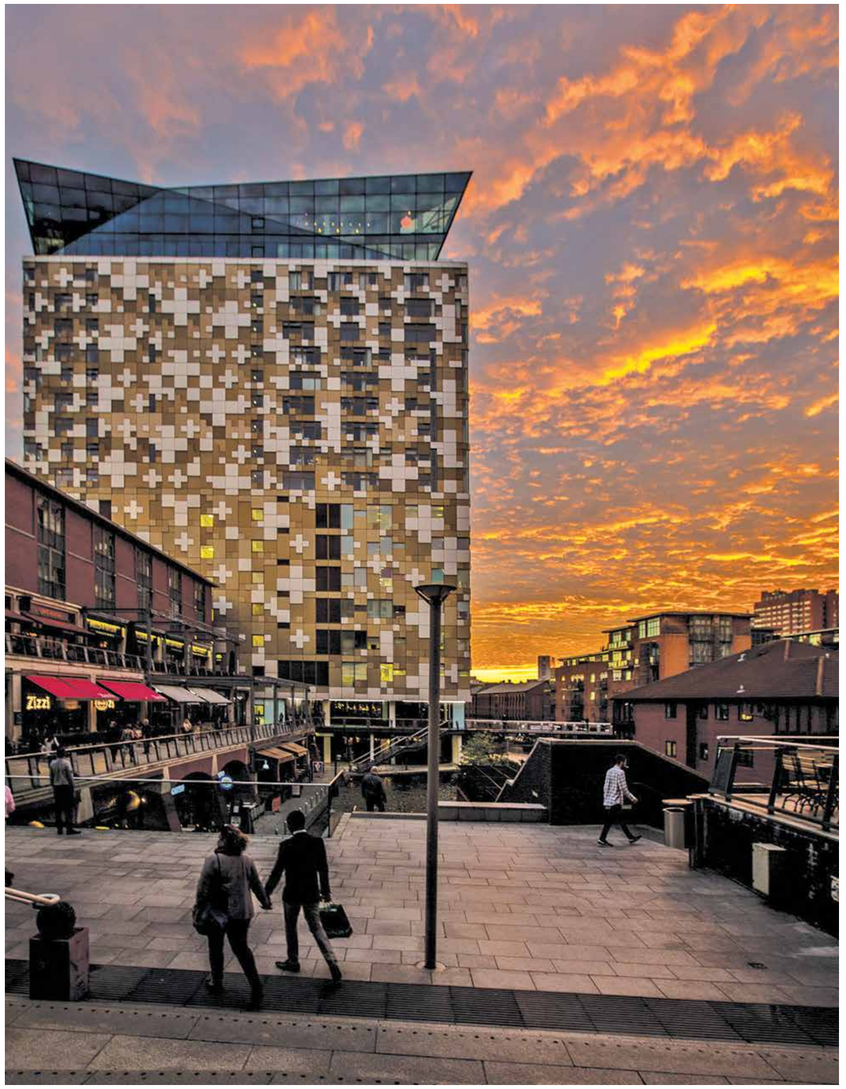
Birmingham Design Guide

Healthy Living and Working Places City Manual

Draft • November 2020



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Healthy Living and Working Places City Manual

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Birmingham City Council

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Neighbourhoods

RETAINING QUALITY AT HIGHER DENSITIES

In successfully integrating higher density proposals into an area, designs will require a clear understanding of its characteristics, with a considered, bespoke architectural response that increases densities whilst protecting (where relevant) and enhancing the established character. In certain areas, such as the city's mature suburbs or certain conservation areas, achieving this balance may present a particular design challenge, due to the primary role plot proportions, landscape, setting and building size play in defining character. In these locations, innovative design will be key.

Where high density proposals (in line with BDP Policy TP30) are promoted or supported by the City Council, designs should utilise these opportunities to enhance areas of the city; and deliver quality living and working environments. Where this scale and density change leads to an accepted change in character, architects must consider the wider context of this change and the role their site has within this. Proposals must consider how comprehensive change may occur beyond their site, using existing urban grain, topography and landscape features to help guide scenarios that in turn should help inform and justify proposals for a particular site.

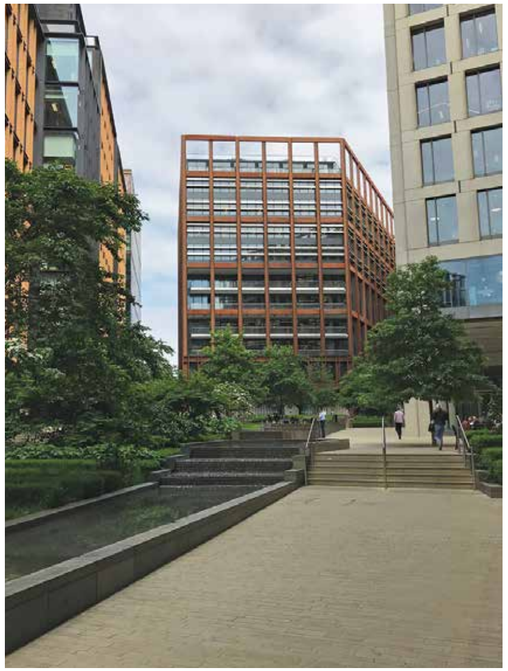
CITY NOTE **LW-1**

Layouts and architectural response

Innovative architecture must be used to successfully balance the most efficient use of land, whilst creating innovative public and private spaces that support health and well-being.

If proposals seek to reduce the City Council's privacy distances and/or the size of private outdoor amenity space to achieve this, the architectural solution should present an internal and external environment that is not diminished as a result of this, with biophilic design at its core.

Solutions may consider enhancing internal environments as a means to compensate for any reduction. Use of steps in the building form or projections may enable a number of smaller outdoor spaces to be created. Creating recessed balconies may enable primary living spaces to be setback, reducing amenity impact from a lesser privacy distances. Innovative, non-standard layouts and orientations may enable solutions to be sought, but these must be clearly demonstrated and architecturally led, with occupier's health and well-being at the heart of any design.



CITY NOTE **LW-2**

Street environment - street width/building heights

Beyond the private spaces within higher density proposals, designs need to consider the relationship between the height of buildings and the width of the surrounding street; and how this may influence the quality of the surrounding environment.

Where development seeks to substantially alter an existing relationship/ratio, designs must ensure they consider the adjacent public realm and how people wish to use these spaces; with develop supporting and allowing this these functions to continue, allied with a justification for any privacy distance shortfalls (City Note LW-3).

Whilst increasing densities can help enhance the intimacy and human scale of spaces, the relationship between the building and street environments needs to be appropriately balanced. Levels of natural light, over-shadowing and micro-climate will be the primary indicators in assessing whether a relationship/ratio work appropriately together, to create the external environments desired.

It is acknowledged that existing environments may alter as a result of higher density development, which could be positive or negative. It is the role of the designer to effectively demonstrate their proposal will create positive environments for all users.

Where proposals fail to successfully achieve this, the City Council may require the implementation of its minimum privacy distance requirements (CITY NOTE LW-3) to help achieve it.

PROTECTING RESIDENT AMENITY

CITY NOTE **LW-3**

Residential privacy and overlooking

The City Council will require the application of minimum privacy distances where it is considered necessary to retain or enhance the character of an existing area, and/or to effectively protect resident amenity and privacy. The weight given to these standards may be influenced by the location of the development; and the scale of surrounding properties. All exceptions to these distances will be considered on a case by case scenario.

The standards should be applied to all new development adjacent to an existing residential use; and within new housing schemes.

Standards:

1. 21m between building faces for 2 storey dwellings and 27.5m for 3 storeys and above; and/or where main living room/kitchen windows above ground level overlook existing conventional dwellings. The separation distance should be increased by 2m for every 1m rise in ground level between new and existing dwellings. This standard will be more strictly applied at the rear rather than the front.

2. Single storey development is not so critical in terms of overlooking from upper storeys and will be judged on its merits.

3. 2m setback for every 1m in height where primary windows (habitable for residential development from main areas of activity and shared circulation space for non-residential) overlooking existing private space is proposed. This applies independantly of the minimum spatial separation requirement.

4. 12.5m minimum distance between elevations with habitable room windows and opposing 1 and 2 storey residential flank walls. An additional 3m for every flank wall storey over 2. Where a flank wall will be situated at a higher level than a windowed elevation, the separation distance should be increased by 1m for every 1m change in ground level.

5. 18m minimum distance between residential elevations with abitable room windows and opposing 1 and 2 storey non-residential flank walls. An additional 5m for every flank wall storey over 2. Where a flank wall will be situated at a higher level than awindowed elevation, the separation distance should be increased by 1m for every 1 m change in ground level.

6. The erection of a screen walling or fencing, of at least 1.8m in height on the appropriate boundary, unless adequate mature screening or fencing already exists.

CITY NOTE **LW-4**

45 Degree Code

Allied with privacy distances, the City Council will also utilise the 45 degree code to reduce the impact of oblique overshadowing and privacy from properties or sites located to the side of existing properties.

The application of the Code will primarily relate to all household extensions (including conservatories), but it may also be applied to any development proposal that will impact on the privacy and amenity of existing residential, such as bungalows, houses and out-of-centre low-rise flats up to 4 storeys. Application of the code outside of these circumstances will be dependent upon the context and character of the application site.

The Code is based on a 45 degree (imaginary) line taken from the nearest primary habitable room* window (front or rear facing) to the proposed development. The Code will not generally be applied from side windows, unless they are the primary source if light/outlook from a primary living space. The trajectory of the measurement should create a clear line of sight, which any development proposal must not break, or interrupt. Proposals that exceed this trajectory will not be supported.

* *Habitable rooms include living rooms, bedrooms, kitchens and conservatories. They do not include rooms such as bathrooms, utility rooms, halls, landings or garages.*

Point of measurement

The scale of development proposed will guide the point from which the 45 degree measurement should be taken:

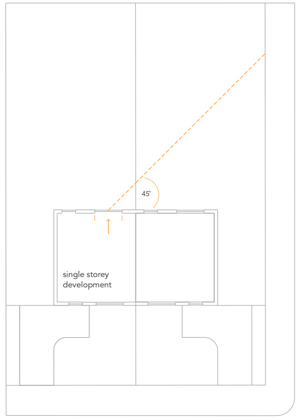
- For a single storey development - from the mid-point of the nearest ground floor habitable window.
- For a 2+ storey development - from the quarter point of the nearest ground floor habitable window. This will also apply to any additions to an existing single storey extension.
- If there is no habitable ground floor window, or if a first floor window is nearer (and so more likely to be affected), the line should be taken the mid-point of the nearest first floor window.
- For open-plan habitable rooms/spaces - from the mid-point of the principle source of light (largest opening) if more than one opening.

Existing extension

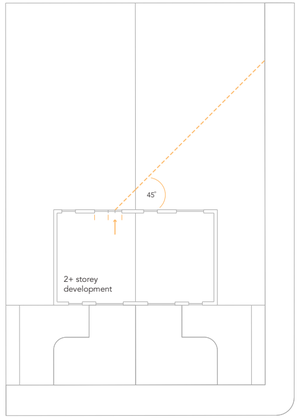
If the nearest habitable room window is within an extension, the measurement should be taken from it. Once both properties have been extended, any further extensions will be assessed on their merits.

Existing conservatory

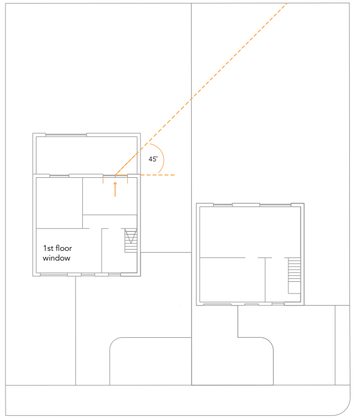
If the nearest elevation has a fully glazed conservatory, the point should be taken from the habitable room window, from which the conservatory is attached.



Single storey development



2+ storey development



1st floor window

Measurements from bay windows

Where the nearest habitable room window is a bay window, the point should be taken from a setback position in line with the wall from which the bays projects. If the bay has non-glazed sides, the measurement should be taken from the window.

Joint development with neighbours

If neighbours submit joint planning applications for extensions/ developments of the same size and built at the same time (must be confirmed in writing), flexibility in the Code may be allowed between these two properties. However, the Code will be applied to any other neighbouring properties affected by the proposal.

Side extensions

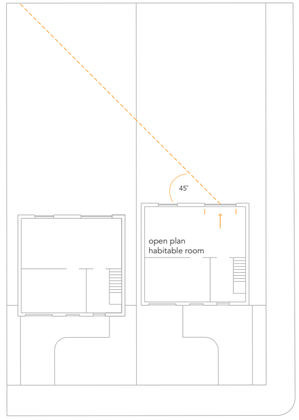
The Code will be applied to side extensions on existing properties, where the proposal projects beyond the front or rear elevation of the neighbouring house. This may arise in cases where houses are built on a staggered building line. In these scenarios, case will be assessed on a site by site basis, considering whether habitable rooms will be effected; and the extent of amenity impact.

Extension to historic terraced properties with rear wings

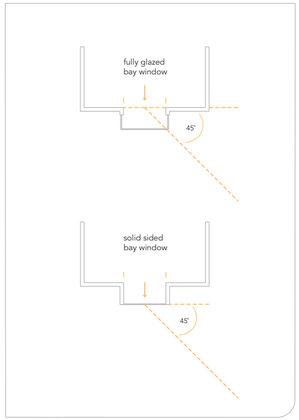
The Code will be applied to any proposed extension. However, assessed on a case-by-case basis, it may be acceptable to apply a single storey extension to an existing wing (which exceed the Code). Issues such as outdoor amenity space and the siting of adjacent properties may influence the acceptability of proposals.

The 45 degree code will be applied consistently by the City Council to help guide the appropriateness of new development adjacent to existing residential uses. However, there may be cases where a greater setback may be required due to the scale of development proposed; and/or level changes that would enhance overlooking or shadowing. Conversely there may be scenarios where level changes or existing structures (of an equal scale) may justify the proposals breaching the 45 degree line. The distance between the new building/extension and the neighbouring property may also be taken into account. The greater the distance, the less potential impact on neighbouring outlook and light.

The needs for an increased setback, or the acceptability of a reduction, will be assessed on a site by site basis by the City Council.



Shared living space



Bay windows

Buildings and their uses

ARCHITECTURAL COHESION AND QUALITY

Birmingham's architecture is fundamental to its continued growth and evolution. Publically it presents an image and perception of the city, whilst privately providing people with their homes and places of work and leisure. To fulfil these roles effectively requires well considered, innovative architecture that evolves with the city and its communities. Architecture at every level must seek to effectively respond to this, from the city's homes and places of work to leisure, retail and community uses; architects should apply their creativity to design buildings that enhance people's lives.

The aesthetic quality of the building is a key component of quality architecture, taking design cues from existing character and effectively translating this into modern buildings that attract users, create delight and innovate. Where appropriate, given location or use, this may extend into the creation of landmarks that have a distinct architectural character and role. Whilst not every building needs to create a visual landmark, it must be well composed and balanced to help deliver quality.

Coupled with an aesthetic quality, buildings must function effectively and deliver internal environments that support the health and well-being of all occupants and users.

In helping to create their buildings, architects and designers must balance the following elements in composing their design:

CITY NOTE **LW-5**

Biophilic design principles

Biophilic design seeks to ensure architecture is influenced by the human connection and experiences of the natural environment, applying and integrating elements from the natural world and/or taking inspiration from them. Meaningfully integrated into the design, the resulting environment will enhance the occupant's experience of the building and their health, well-being and productivity whilst in it. Given these human benefits and the time spent in buildings, all development must effectively integrate appropriate biophilic design principles.

The City Council believes health and well-being must be at the core of development, with biophilic design considered a principle means of achieving this. The Covid 19 pandemic has highlighted the importance of quality, functional environments where people can connect and associate with the natural environment for physical and mental health. As the density of development continues to risee, it is increasingly important biophilic design principles are at the heart of all development, ensuring its benefits can be experience by all.

The application of biophilic design can take a number of forms and be interpreted in different creative ways, but the overriding principle should be to utilise and mimic characteristics of the natural world in the built environment.

Physical and visual connection to the natural environment is an important element of biophilia; and proposals should effectively integrate pervasive GI within their scheme and/or have visual connection from primary spaces to green and blue infrastructure (were present) within the adjacent landscape. Building orientation and generous glazing should also effectively connect the internal environments with natural light, views and the sky.

Beyond these connections to natural features, architects must also seek to integrate natural forms and elements into their designs. This could range from organic/natural elements influencing the architectural form of the building, to the use of natural materials; and colours and textures that have a reference to nature.

Design must seek to integrate and apply biophilic design principles. In demonstrating how a proposal has integrated these principles, the City Council recommends using the '14 Patterns of Biophilic Design' (published by Terrapin Bright Green) as a tool to inform the design and a criteria to present alignment.

14 Patterns of Biophilic Design

Nature in the space patterns:
1. Visual connection with nature.
2. Non-visual connection with nature.
3. Non-rhythmic sensory stimuli.
4. Thermal and airflow variability.
5. Presence of water.
6. Dynamic and diffuse light.
7. Connection with natural systems.

Natural analogues patterns:
8. Biomorphic forms and patterns.
9. Material connection with nature.
10. Complexity and order.

Nature of the space patterns:
11. Prospect.
12. Refuge.
13. Mystery.
14. Risk/peril.

www.terrapinbrightgreen.com/reports/14-patterns/

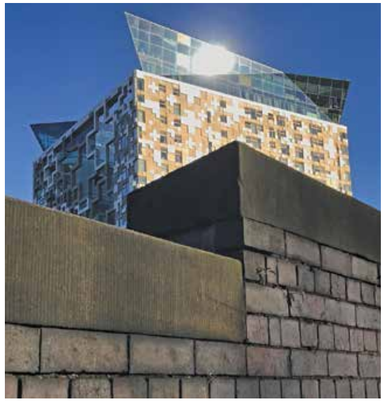
This ethos must continue into the internal environment of the building, which allied with the outlook, will have the greatest biophilic benefits for the people using and occupying the building. Internal environments provide the opportunity for occupants to directly engage with a natural inspired environment, element or form; key to the success of biophilic design.

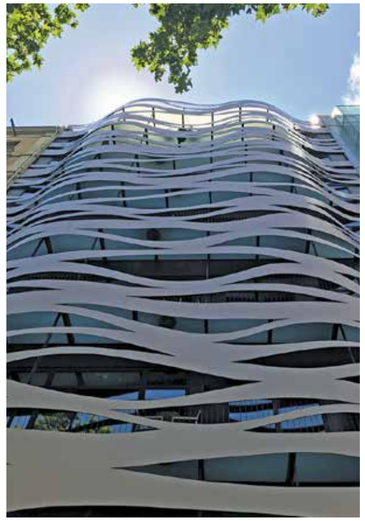
Interior design must focus on creating environments conducive to occupant health and well-being, utilising natural materials (such as wood and stone), integrating plants, creating organic forms and shapes, having tactile elements, using natural colour tones and apply a lighting design that reflects the different functions and environments of a space (having individual task lighting were needed).

To further aid and supplement the application of Biophilic designed interiors, the City Council encourages the application and certification of WELL Building Standards, particularly for workplace environments. It believes applying the WELL 'concepts' in part or whole can help create healthy working environments.

There are ten concepts in WELL v2: Air, Water, Nourishment, Light, Movement, Thermal comfort, Sound, Materials, Mind and Community

WELL Building Standards (www.wellcertified.com) 'comprehensively address not only the design and operations of buildings, but also how they impact and influence human behaviours related to health and well-being'.





CITY NOTE **LW-6**

Strong concept

The concept behind a building should be drawn from the creativity of the architect, whilst pulling and utilising appropriate elements of the surrounding character area to help the building knit into its surroundings. The City Council welcomes considered architecture that seeks to challenge and innovate.

This ethos should be applied by all building types, including those that utilise stock book building types. Whilst the City Council recognises these forms play a key role in achieving viable development; but to be effective, these types must be flexible, enabling architects to adapt and evolve them to effectively respond to and enhance their surroundings. The nature of the place specific adaptation will relate to the site, but there should be flexibility in materials and façade detailing; the location of windows and entrance areas; and the overall scale and/or mass.

CITY NOTE **LW-7**

Form, mass and scale

The form, mass and scale of the building should generally have been informed by the character of the surrounding area and appropriate adjacent buildings. Whilst a modern interpretation may not need to follow an historic form, the scale and mass should align with its surroundings, unless there is a clear design justification for deviating from this. Where large multi-building proposals are being developed, the topography, streets and spaces hierarchy, and adjacent sites should help inform an appropriate scale and mass for blocks/plots, from which specific forms can be developed. In developing the form of buildings consideration should be given to how steps, setbacks, breaking blocks, roof orientation and typology can be used to help add interest to a form, and may help reduce the visual mass and scale where desired.

CITY NOTE **LW-8**

Façade composition and detailing

The building's façade, allied with its form, will play an instrumental role in delivering coherent architecture. The nature of the building's use and location may dictate how bold or contemporary an approach is. But whatever the architectural style, buildings must display a coherent architectural approach, with well-proportioned, balanced facades that have attractive, considered detailing and a limited palette of quality materials.

The façade and internal layout are intrinsically linked and must work together to create a well composed façade, with interest and articulation. The internal layout must not dominate and lead to a visually monotonous façade that hinders the quality of the design.

Whilst repetition within a façade can aid rhythm, symmetry and balance, the singular repetition of one elements (such as one window size in a large façade), without appropriate articulation and detailing, can create lifeless elements. In composing facades proposals must consider the visual relationship between the different elements, and how collectively this composition achieved balance, rhythm, variety, interest and order.

Well composed facades are likely to contain a degree of projecting and recessed features to aid interest and articulation, utilising the design of doors and windows (with their surrounds), and in appropriate locations, features such as bays, gables, eaves, chimneys; or via materials, through physical change, or variation in lay patter/arrangement. Such details can be further enhanced at night, with the use of appropriately sited architectural lighting to punctuate selective elements.

Doors and windows have a big impact on the balance and composition of the facade and the quality of internal spaces. They must reflect the scale, proportions and style of the building (so that larger buildings will also have larger front doors and more glazing) and be arranged in a logical hierarchy and rhythm (normally helping to express a vertical or horizontal façade emphasis). Specific consideration must be given to the design and detailing of the windows. These must seek to minimise the use of caps, mullions, transoms etc, to enable the glazing span to complement the wider façade. Where such detail is applied, they must align with the façade in terms of proportions and orientation. Any conflicts that cannot be resolved with a different system must be effectively masked with the use of frameless systems.

Front doors and entrance areas should be clearly defined, welcoming and generally open on to street frontages. As with the windows, the doors and their associated glazing system must effectively complement the wider façade in their stature and design.

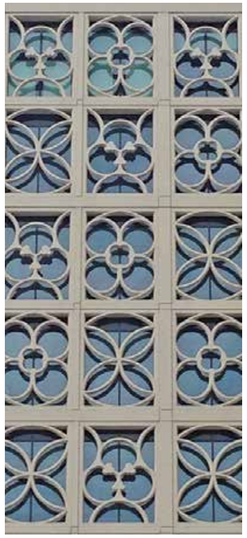
CITY NOTE **LW-9**

Utilitarian infrastructure

Utilitarian features should be integral to a building's design, not an afterthought. Rainwater downpipes should work with, not against, the façade's appearance and rhythm. Mechanical plant, utility boxes, vents and other unattractive features should be discreetly positioned away from building frontages and masked/integrated appropriately into roofscapes or other elements of the building so that they do not detract from the streetscape or skyline. The external materials, detailing and finish of such components should complement and align with the other façade detailing of building (such as windows and doors, door furniture, fascia boards). Poorly detailed and located, these elements can severely impact on the quality of the finished building.

The location and potential impact of externally located plant must be appropriately considered during the design process. Where it is to be located on the roof space or other prominent areas of the buildings, architects must treat these areas as '5th elevations', with equal consideration given to their materiality and visual impact.

Things to avoid include: a incompatible mix of architectural styles or features; an apparently random mix of window positions, sizes and styles; applying too many materials; buildings with undersized doors and windows; adding vents and other utilitarian features at the end of the design process; bland, flat building facades, especially facing the public realm; mimicking existing historic features and architectural styles; and trying to enliven a dull building by 'sticking on' features, decorative brickwork or random finishes such as patches of render.



DESIGNING HIGH QUALITY HOMES

CITY NOTE **LW-10**

Modern architecture

Allied with an appreciation of surrounding character, the City Council supports the introduction of modern residential architecture that challenges the pastiche norms prevalent across residential developments. In doing so, architects must design considered, spacious living environments for the 21st century, which fulfil and reflect the modern needs of residents.

CITY NOTE **LW-11**

Internal space

To aid the creation of functional, well-proportioned homes, the City Council seeks the application of the Nationally Described Space Standard as detailed in the DM DPD Policy DM10. Beyond merely aligning with these standards, architects should think carefully about how space can best serve the needs of residents and support their well-being. These may vary with the types and mix of homes being designed, and the demographic of residents; with designs responding appropriately to these variants. But the single binding element across all house types should be the design of functional, efficient layouts that minimise circulation space and devote sufficient space to primary living areas.

This may require architects to create tailored layouts and designs to deliver living environments that successful meet these needs, giving space to rooms and areas where it will be most beneficial; and considering the siting of internal walls, doors and entrances.

These bespoke, considered layouts can help create better living environments for every household scenario, from aiding residents with restricted movement, to supporting community and social cohesion in shared and multi-unit residents; and ensuring families have sufficient room for collective and individual needs.

In designing layouts, architects must ensure the following elements and considerations have been successfully integrated into a design to help create a functional home:

Adequate storage space
Sufficient internal space (free of boilers and other infrastructure) should be provided to store every day and occasions items. As a minimum, this should enable the storage of items such as vacuum cleaners, ironing board, dirty laundry, cleaning products, coats and suitcases. Consideration should also be given to how sports equipment (particular in a flat) can be stored.

Functional kitchen space
Kitchen areas must have sufficient space to accommodate kitchen appliances (kettle to cooker), appropriate levels of storage, waste and recycling provision and adequate space to prepare food. If the kitchen is to house the washing machine, this must also be accommodated without comprising the kitchen function.

If a kitchen is to also serve as dining space, layouts must clearly demonstrate there is sufficient space to enable this dual function.

Adaptability
Does the layout and space provision allow for potential changes to people's lives, through its current layout or simple adaptation? Could it accommodate or support people with specific health or care needs? Could the function of rooms be altered? Does circulation cut through primary living space, effecting their potential adaptation? Is there scope to extend the house?

Functional living spaces
Primary living spaces beyond the kitchen (living rooms, dining areas and bedrooms), must effectively fulfil the needs of all residents and allow flexibility in the furniture and its layout within the room (can a double bedroom become a twin?). This should ensure all occupants can comfortably gather in the living room and dining room. Consideration should also be given to how these rooms and spaces could function with guests and friends.

Communal space
Within multi-unit schemes such as apartments, student schemes and elderly accommodation, communal spaces should be provided that enable people to interact with one another; to help support a sense of community. This should be in the form of formal areas such as lounges, exercise spaces, amenity space or shared dining space; and informal spaces such as generous stairwells, 2m+ wide corridors, lobbies or laundry areas.

Communal circulation space
Internal and external circulation space should be fed by natural light; and be of a sufficient width to allow furniture to be easily moved and residents to engage if desired, whilst not restricting movement. To enable this to occur, a minimum of 2m wide corridors should be used.

Private space and homeworking
Allied with appropriate communal and primary living spaces, layouts must also ensure each resident has access to private space, whether for homeworking or private activities. Appropriately sized bedrooms (accommodated appropriate sized bed, wardrobe, desk and circulation space) can often fulfil this function; but within a multi-person home, it may be appropriate to provide a space for play and/or home working and study.

Noise mitigation
Layouts must consider potential for noise disturbance within a home and between homes. Within a home, architects should consider how noise from living and dining areas may impact on bedrooms and private areas, and apply layouts that help mitigate this. Use storage space, circulation or bathrooms as buffers. Don't locate the smaller bedrooms (children's) above or next to living rooms. Is the kitchen the best location for a washing machine, within an open plan living space?

Schemes should consider potential noise from neighbours. In designing layouts, consideration should be given to the siting of adjacent rooms (were attached), together with how communal circulation space, stairwells and lifts may create noise disturbance.

This wider noise consideration should also extend externally, considering how any adjacent uses may generate noise that may impact on resident amenity; with a proposed layout responding appropriately.

Washing and drying facilities
Residents must have the ability to effectively wash and dry laundry. Within apartment schemes, architects should consider how residents will be able to effectively undertake this, without having to resort to make shift washing lines on balconies; or using internal heating systems that result in condensation and damp issues. To help prevent this, the City Council recommends the creation of communal laundry facilities.

Consideration must also be given to how internal layout and external appearance work together to deliver form and function. Designs must not be derived from an internal layout, with external appearance derived as a result of this.

CITY NOTE **LW-12**

Natural light and solar gain

Allied with functional, efficient layouts, designs must maximise levels of natural light and solar gain into units to create comfortable, naturally lit environments. This should be achieved through a considered orientation and layout, coupled with the appropriate placement of large windows and generous floor to ceiling heights that enhance levels and periods of natural light. To help achieve this, proposals must seek to:

- Accommodate glazing into habitable rooms that is at least 20% the size of the rooms' floor area.
- Provide direct sunlight into at least one habitable room for part of the day.
- Create living, kitchen and dining spaces that benefit from direct sunlight.
- Apply minimum ceiling heights of at least 2.6m (particularly in ground floors).

Where natural light is limited by orientation or adjacent overshadowing, proposals must compensate by ensuring ceiling heights and large windows are maximised; and features such as light wells, roof lights, angled bays and light wells are used to draw light where possible and appropriate.

With increased levels of natural light and solar gain comes the potential for internal heating, which may need to be effectively managed to prevent overheating during certain periods of the year. Where this will occur, designs should successfully manage this through shading systems, ventilation and/or soft landscaping. It should not be used as a rationale for accepting the creation of low quality internal environments.

Effectively harnessing natural light can aid the efficiency of the buildings, support health and well-being, and positively contribute to the architectural form. Within the street scape, large windows will help enhance natural surveillance and help activate elevations and spaces.

The City Council encourages all new residential developments to maximise natural light, particularly apartments where multi-orientated facades can be limited.

CITY NOTE **LW-13**

Outdoor amenity space for residents

All residents should be able to access private outdoor amenity space, of sufficient size and quality to serve the occupants of the dwelling. Houses should provide between 52sq.m and 70sq.m (depending on number of beds), to help enable children to play and exercise; provide the potential for food to be grown; and enable external leisure to take place.

Apartments, carehomes and student accommodation should seek to incorporate provision into their design, through balconies, roof terraces and/or communal courtyards and gardens. Communal spaces must be private landscaped gardens/spaces that allow multiple use and not left over areas of grassed land adjacent to parking. Balconies must provide functional, private amenity space with a minimum depth of 1.5m.

If proposals are seeking to gain support for amenity space below the City Council's minimum standards, designs must clearly demonstrate how this reduction will not impact on the delivery of quality amenity space. This may form part of an innovative architectural design that creates a number of smaller spaces (garden, roof terraces, balconies and/or courtyards) that provide variety; benefit from sunlight at different hours of the day; and enable different residents to have private space. Will the design and content of the smaller space create a more useable, engaging space that residents and wildlife can interact with? Is the reduction a result of providing a greater proportion of private space over communal?

Where proposals are set back from the footway, enabling defensible space or gardens to be created, these spaces should positively add to the street and residential environment, through appropriate landscaping that helps connect the building with its surroundings.

Rear gardens should be directly accessible from street frontages. Terraced houses should generally have 'tunnel' accesses between pairs of properties, rather than long paths that run between rear garden fences.

Balconies

Balconies and Juliette balconies must form part of a cohesive design and not dominate facades or appear as an afterthought. Recessed balconies are likely to create a higher quality design than those that project.

CITY NOTE **LW-14**

Adaptable and accessible homes

Homes should be flexible and adaptable to appeal to a range of potential occupiers now and in the future. This allows spaces to be laid out and used in different ways e.g. for sleeping, working or studying, or to be modified to accommodate different access needs. Modern methods of construction can promote this by using non-load bearing internal walls, careful positioning of sockets and service ducts positioned within floor/ceiling spaces.

Consideration should also be given to the layout of the building at design stage, to aid accessibility and reduce future modification burden. Measures such as wider ground floor doorways, at-grade primary entrance points and direct movement paths between ground floor rooms can aid access and movement of wheelchairs and pushchairs. Where specialist housing is to be provide, proposals should ensure enhanced or any specific accessibility requirements are appropriately integrated to increase the quality of the living environment provided.

CITY NOTE **LW-15**

Consideration of adjacent uses

Where residential uses are proposed to be introduced adjacent to non-residential uses, consideration needs to be given to the impact these uses may have on residential amenity. Conversely, the potential impact residential uses may have on the operation of existing uses must also be considered and successfully mitigated (if possible).

The compatibility of residential and non-residential uses will be assessed on a site by site basis, with the city's Regulatory Services being a primary consultee. There may be cases where the introduction of residential uses may not be considered acceptable, due to the nature of existing uses and potential for future conflict.

Where mitigation measures could be introduced by the residential proposal to aid compatibility, these must not compromise the design and/or residential amenity.

DESIGN OF RESIDENTIAL EXTENSIONS
INITIAL CONSIDERATIONS

To help inform the design, size and location of an extension, homeowners and designers must be aware of any influencing factors:

Neighbours - how will your proposal impact on neighbouring properties. Is the proposal to involve a shared boundary (if so you must comply with the Party Wall Act)? Will any of the extension extend beyond your boundary (including gutters overhanging/ foundations)? Will you need construction access from a neighbouring property?

Trees and biodiversity - will your proposal impact on any trees within your boundary or a neighbours? Are any protected species (bats, great crested newts, etc) likely to be affected by your proposal?

Services - do you know whether your proposal will impact on any existing services (water, gas, drainage, electricity, communication); and how you propose to connect to these?

In addition, is the house:

- Within the green belt? This may impact on the size of extension acceptable.
- A listed building? A separate application for listed building consent will be needed before you can extend it. Your extension must not adversely affect the character of the existing building and historical features must not be removed.
- Within a conservation area? Proposals must preserve or enhance the historic character of the area.
- Within a village estate area? You may need to obtain consent from the Estate Trustees as well as any consent required from the Council.
- In an area that may be of archaeological importance? You may need to have an archaeological evaluation carried out by a qualified archaeologist and submitted with your application.
- Is within or adjoin a designated nature conservation site or potential site of importance (PSI).

Do I need planning permission and/or building regulations?
We recommend you check with the City Council to confirm whether you need planning permission. Information on what extensions require planning permission is available on the Planning Portal. But, is it recommended you contact the Council to clarify this.

The majority of extensions will require Building Regulations (including those that do not require planning permission). They ensure the building/extension is constructed to a safe standard and certain levels of noise and thermal insulation are achieved. Further information:

www.birmingham.gov.uk/info/20008/planning_and_development/459/building_consultancy

Planning Permission and Building Regulations are separate processes and require separate applications.

Even if you do not need permission, you will get the best results with your project by following this guide.

DESIGN OF RESIDENTIAL EXTENSIONS

CITY NOTE LW-16

Respect the appearance of your home and local area

As with any new development the design of an extension must consider the architectural style of the house being extended and character of the surrounding area; leading to a design that complements the scale and style of the house and its surroundings. To successfully achieve this, designers must consider:

- The key characteristics and styles of the host building and the surrounding area, ensuring the roof design aligns with the existing style (unless there is an architectural rationale for not); and using similar shapes, sizes and designs for windows, doors and other external details.
- The size of extension in relation to existing house. Extensions should be smaller than the main part of the house and not dominate its appearance.
- Impact on the street and neighbouring homes. Extensions should be in scale with the width and height of existing buildings, including floor to ceiling heights. It must align with the established building line of the host and wider street, with particular consideration given to corner plots, ensuring alignment with the building line of both streets.
- The amount of garden space to be lost.
- Boundary treatments should be in keeping with the character of the local area, particularly were visible from the street.

Contemporary designs that complement the character of the local area, whilst improving the appearance of the property will be welcomed. Poor quality designs that negatively impact on the appearance of a property and surrounding area will not be supported.

CITY NOTE LW-17

Extending dwellings in the green belt

Proposals for extensions to existing dwellings in the Green Belt may be allowed, provided the proposed extension would not increase the total habitable floor area of the building by more than 50% or by more than 200sq.m whichever is the greater.

Extensions approved and constructed within the 20 years preceding the application will be counted towards the 50% or 200sq.m. Garages will be included within the floor area measurement, where they are physically attached to the dwelling or sited within 5m of it.

CITY NOTE LW-18

Location of extensions

Front extensions
A front extension can have a considerable impact on a home and the surrounding area, changing its visual appearance, removing original features and stepping the building beyond its existing footprint. Given this level of change, front extensions will not be acceptable unless the proposal will improve the external appearance of the house. This will be assessed on a case by case basis.

Porches
Porches can impact on the visual appearance of a house, but may be acceptable where the design is in keeping with the appearance of the street, modest in scale and reflects the style and materials of the house.

Side extensions
Side extensions, particularly 2 storeys, can have a significant effect on the street scene, increasing the width of houses and reducing the spaces between them. This can lead to a change in street character with extensions to detached or semi-detached homes creating the impression of a continuous frontage (the terracing effect). To avoid this change in character occurring, side extensions must appear secondary to the house, with designs applying appropriate setbacks from the building line of the house and the side boundary:

- Ground floor elements setback by at least 500mm from the building line.
- First floor and above, setback at least 1000mm from the building line.

Allied with appropriate setbacks, design must also create roofscapes that do not dominate, with designs that alignment with the host, but have lesser proportions and a lower ridge height.

Exceptions to this requirement may be considered if there is a well-defined characteristic that justifies a reduction in the setbacks and/or roofscape design.

Rear extensions
Extensions at the back do not usually affect the appearance of the street. But where it would be visible, greater consideration must be given to the design and its potential effect on the street.

The potential to impact on neighbouring properties is an important factor and must influence the design and location of a rear extension. To help reduce the potential impact, proposals must apply the 45 degree code. This requires an angle of clear sight at least 45 degrees between specified points on your extension and your neighbour's windows. An extension must not project beyond the projected lines.

Proposals that actively use this projecting line as a building line, without a clear and justified architectural rationale, will not be supported.

Proposal must not view the area within the projecting line as a 'building plot', applying splays and chamfers to constrain the projection; and in turn the architectural quality of the extension. Proposals must create a quality design, sat within the plot defined by the 45 degree line.

The dense nature (close proximity) of terraced properties can result in rear extensions having a significant impact on the amenity and outlook of neighbouring properties. This must be reflected in the design, size and location of any rear extension to such properties. In addition to the application of the 45 degree code; proposals must not lead to overbearing extensions that enhance the feeling of enclosure, reducing the sense of separation and space.

Extensions to historic structure that exceed the 45 degree code are unlikely to be supported. Exceptions will be considered on a case by case basis, assessing the impact on neighbouring amenity and outlook.

Details of the 45 degree code can be found in City Note LW-4.

Conservatories
Conservatories built up to the boundary, may have to use obscure glazing in side windows (for example where there is no screening, such as a high fence), to protect the privacy of neighbour's.

Extensions on corner plots
Extensions to properties on corner plots must acknowledge and enhance the surrounding area. Blank gable ends and large areas of blank walls will not be supported, includes those of garages or workshops.

Given the prominence of corner plots and how adjacent plots may work together to help highlight junctions or contribute to local character, extension to any elevation must be well designed, acknowledging the establish character of the surrounding area. Within this context, corner plots can play an important role in defining the building line of the streets that span from it. With the building's location on these plots establishing (and concluding) the property frontages, from which the building line of the streets are defined.

Given this important character 'role', extension on corner plots that step beyond an established building line will not be supported, due to the negative impact it will have on the character of surrounding area.

Dormer windows and roof space conversions
Dormer extensions must not dominate the roof. The design and proportions of any proposal must be in keeping with the house, with details such as the roof and windows aligning with lower floors. If dormers make a positive contribution to the surrounding area, these should be used to inform the design.

Extensions that seek to change the style of an existing roof (from hipped to gable) will not be supported, due to the impact it will have on the character of the surrounding area. Exceptions may be considered, if the applicant can demonstrate there will be no character harm; or it will enable the creation of a high quality, exemplar design.

Sloping roof lights
Appropriately site, roof lights can enable the use of roof scape with limited impact on the character of the house and amenity of neighbouring properties. In most cases, planning permission is not required for roof lights, but checking with the City Council is recommended. Where planning permission is required, the Council encourages roof lights to be kept to the rear to reduce any potential impact on the surrounding streetscene.

CITY NOTE **LW-19**

Roof top extensions

Proposals that seek to introduce a roof top extension to an existing property (residential or proposal for residential conversion), must ensure the proposal does not change the character and balance of the existing building. Designs must effectively respond to the architectural style and scale of the existing building, creating a proposal that is subservient in scale, with minimum visual impact on the building.

Designs must also consider the impact it will have on the wider character area, with specific consideration given to roof scapes and forms. Proposals must ensure appropriate variety is retained, and a terracing effect of the roof scape is not created through cumulative extensions.

CITY NOTE **LW-20**

Basement extensions

Designs that seek to introduce a basement extension that extends beyond the existing building must ensure it successfully re-introduces outdoor amenity space above the structure; and provides sufficient natural light into the space created.

The topography of the garden space must be a key consideration in designing a basement extension, ensuring proposals do not substantially change existing ground levels or require the introduction of structures that extend above these. In order to be successfully, basements must integrate and use the topography of the surrounding area, resulting in structures hidden/absorbed into the landscape.

The nature of basement extensions may result in minimal direct impact on adjacent properties once constructed, but during construction disturbance and potential for damage to adjacent properties and their garden areas needs to be considered and appropriately managed. To help understand this and inform neighbouring residents, detailed construction drawings and method statements should be submitted with any application. This should include a detailed understanding of services running through a site; how surface water will be appropriately managed as a result of garden loss; detailed construction methodology; and specification of any mitigation measures to be applied.

CITY NOTE **LW-21**

Garages, outbuildings and parking

Garages, outbuildings, car ports and parking areas should be in proportion to the size of the house. Their size must be incidental to the main dwelling and not stand out as prominent features, negatively impacting on the appearance of your home and the character of the area. Garage doors must not dominate the front view of your house.

Property frontages should not be dominated by vehicle parking and hard landscape. An appropriate balance must be achieved between vehicle parking and landscaped front garden spaces.

The replacement of existing front gardens and their boundaries with open hard standing to create off-street parking will be resisted. Removal of these elements can negatively impact on existing character of the street and in some cases exacerbate localised flooding.

A reduction in garden/amenity space resulting in provision below the amenity space standards outlined in Design Principle 10: High Quality Homes, will not be supported.

A new dropped kerb from the highway would need approval from City Council's Highways Department and in some circumstances it would require planning permission.

CITY NOTE **LW-22**

Garden extensions

Planning permission will be required to extend your garden onto publicly used land, such as highway verges, as it involves a change of use. Permission will also be required to erect a fence more than 1m high to enclose the land where it is next to a road.

DESIGN DETAILS

As with any development, the detailing and materials of an extension plays an important role in creating a high quality finish and helping it visually link with the house being extended.

The architectural detailing, materials and styles may vary from house to house and the designer should ensure they mirror and respond to these appropriately. As a broad guide, the following elements must be considered and appropriately applied to an extension design.

Contemporary design
Contrary to elements of the above, the City Council supports applicants who wish to create a contemporary designed extension, in contrast to the style of the host building. Where this distinct contrast in style is sought the City Council may be more flexible in its approach to materials, façade design and architectural detailing. However, in order to be successful, designs must be considered and have a clear architectural ethos that must be explained, justified and successfully fulfilled by the detailing proposed. Whilst contemporary, it may still be appropriate to reflect façade proportions; and its scale and form must remain subservient. The acceptability of contemporary designs will be assessed on a site by site basis, considering the character of the host dwelling and the surrounding area.

CITY NOTE LW-23

Layout

Orientation of the Extension
Designing an extension to utilise and take account of its location can lead to additional benefits. Subject to neighbour privacy requirements, installing large or multiple windows will increase levels of natural light into spaces, and if south facing will aid heat gain from the sun. Consideration may also be given to installing solar panels where an appropriately orientated roof space is being created.

Space between buildings and gardens
Where houses are close together, it is important to leave an appropriate gap or space between the extension and neighbouring buildings.

Usually adequate spacing and size can be achieved through careful design. But in some cases where this is not possible or appropriate, the City Council will require the application of minimum standards, as detailed at City Note LW-3.

CITY NOTE LW-24

External detailing and design

Roofs
The roof design should fit in with the type and style of roofs in the area; and be constructed of similar materials as the house being extended. The angle and design of the roof must align with the host, unless there is a clear design rationale for an alternative.

Decorative features
Original decorative features should be retained or renewed if damaged. Where appropriate, decorative features should be incorporated in the extension design.

Chimneys
Existing chimneys should be retained. They add to the character of the property and the surrounding area. Chimneys are often structural features, so if proposals are seeking to remove them this must be appropriately compensated for.

Bay windows
New bay windows should have the same general shape, proportions and appearance as original bays on your own and neighbouring homes.

Windows and doors
New windows and doors should match those on the original house, with the same size and shape openings. If this is not possible, they should at least be in proportion with other similar windows in the neighbourhood.

Materials
In most cases, materials should match the existing building. Please take care to match colours and textures. This includes windows, doors, brickwork, roofing and architectural details. Where possible, use reclaimed materials to aid this alignment.

In some cases, the City Council will condition materials, ask to see and approve samples of materials before construction begins. Where this is required, applicants should not purchase materials before approval is given by the Council.

Boundary treatments
The design, location and height of boundary treatments must align with and complement the character of the surrounding area; and not lead to the fortification of properties. High boundaries at property frontage (beyond 1.2m) will not be supported.

DESIGNING NON-RESIDENTIAL BUILDINGS

Traditionally a number of non-residential uses (industrial, some leisure and retail and faith uses) have inward looking designs that have a greater focus on the internal use requirements, rather than the surrounding street or well-being of employees.

Whilst this style of development has become a perceived 'norm', it is not an approach the City Council supports. Architects should challenge this with designs that successfully serve the use, whilst supporting the street and employees/users. Building and site layout will play an important role in achieving this, allied with architecture that enhances and engages. This should be achieved with a standalone building, or as part of a mixed use proposed.

CITY NOTE **LW-25**

Accessible buildings

Buildings designed for multiple users must ensure they are accessible to all; considering and providing for a range of accessibility needs, to ensure everyone can safely and effectively enter, use and move through the building. Building Regulations provide the fundamental requirements related to accessibility, but architects should ensure they are seamlessly integrated into a design; and where appropriate go beyond these regulations to provide enhanced accessibility.

Access ramps

The use of externally sited ramps can have in a negative impact on the building it serves and the surrounding landscape, interrupting the architectural quality and character of a building; and the manner in which it engages with the surrounding environment.

Within new build schemes level changes should be effectively managed by the development, without the need for external ramps. Where they have to be utilised, they should be effectively integrated into a landscape design and not diminish or dominate the building's façade.

When reusing existing buildings, the character of the building and its surroundings must also be a key consideration in designing accessibility enhancements. Proposals must seek to resolve any ground floor to street level changes internally. But where it can be demonstrated this would have a negative impact on the character of the building, or is unviable, proposals must design solutions that effectively balance the need to create accessible buildings, with conserving the character and quality of the building and its surroundings.

Retrofitting ramps rarely achieve this balance successfully and may only be considered if designs have meaningfully explored other options such as the location of entrances and less intrusive infrastructure such as platform lifts. These options need consideration from the outset of the design process.

If a ramp is to be retrofitted to an existing building, it must be suitability located and designed to reduce its impact on the host building. This must include the use of complementary materials and detailing, unless there is a clear rationale for diverting from this. This could include glazing to reduce its visual presence/impact, or as a result of an artist led scheme/design.

Considered and effectively integrated from the outset of a design, specific accessibility requirements may offer benefits to all users and reduce the need for duplication of infrastructure or built elements.

Internal layout

Within the building itself, designers must seek to create direct routes through the building to enable movement without the excessive use of doors, changes of direction and manoeuvres to reach spaces and locations. Where movement aids are needed such as platform lifts and ramps, these must be considered and designed from the outset, ensuring they are sited in convenient and desirable locations. In specifying doors, due consideration must be given to their width and use of electric opening aids, as an accessibility benefit to all users.

To aid user information on the accessibility of development, the City Council encourage all developments to support and contribute to AccessAble, submitting relevant information to enable detailed access guides to be created for the building.

www.accessable.co.uk/

CITY NOTE **LW-26**

Community (including schools and leisure centres), cultural and faith buildings

The social role of community, cultural and faith buildings can result in them playing an important, influential role in lives of their users; a consideration that must be acknowledged by their design.

The City Council encourages the designers of these buildings to express their social and cultural functions within their designs. This should lead to innovative, bold, modern architecture and interior designs that support and encourage users to partake and interact in their learning, community, leisure and/or faith activities.

Faith related buildings should not apply pastiche design of historic or traditional forms. Where traditional or faith related element need to form part of the building, these should be successfully integrated into a contemporary design.

Given the community function of these uses, designs and layout must be outward looking, successfully engaging with its surroundings; acknowledging it community and cultural function. In doing so, it may be appropriate to create a landmark building in design and scale, further heightening its prominence within the community.

The design of community buildings and spaces can be enhanced through the commissioning of a professional artist with a socially-engaged practice, whose creative input as part of the design team could help to deliver greater value from a pre allocated budget.

Locations of community, cultural and faith buildings must consider the potential impact they may have on adjacent uses in terms of disturbance from users travelling to the venue and the activities taking place within. For large community facilities such as schools, faith buildings and leisure/sports uses, transport assessment are likely to be needed to understand, manage and mitigate any transport impact. In designing schemes, architects must ensure focus is given to supporting and encouraging sustainable forms of transport; and effectively managing and integrating vehicle parking to create safe environments for all users.

Further guidance on the design of car parking is presented by City Note SS-16 of the Street and Spaces Manual.

CITY NOTE **LW-27**

Places of work

Aided and informed by the application of WELL standards, places of work must ensure they successfully balance the functional needs of their business, with the provision of employee environments that support health and well-being, and in turn encourage productivity.

This must lead to environments that provide sufficient break-out and rest spaces; outdoor amenity space; are well ventilated; contain noise management measures; have natural elements; maximise levels of natural light; and have layouts that encourage walking (prominently located stairs, less lifts and central social/kitchen areas and washrooms).

To further support employee health and well-being, designs must incorporate lockers, showers and changing space to support employees who wish to run or cycle to work; or undertake exercise during lunch break. With large scale developments, consideration should be given to providing on-site gym/exercise space for employees, aiding employees' ability to undertake exercise within lunch break periods or pre/post work.

To enhance connection with its surroundings, the City Council supports the introduction of mixed use ground floors and the inclusion of public spaces and foyer/lobby areas that have a public element, such as gallery space, public routes through the building, or a cafe.

As any development, the scale, mass and architecture of places of work must be informed by character assessment as detailed at Design Principle 2.

CITY NOTE **LW-28**

Storage, distribution and industrial buildings

Designers of industrial buildings must challenge the perceived norm of creating inward looking buildings that offer little to their surrounding environment.

Beyond the requirement to locate reception, office functions and staff facilities at property frontage, designs should seek to introduce glazing that provides a visual link to the industrial function of the building. Traditionally these elements are hidden from public view, but as with modern office buildings, having a visual connection/ awareness of industrial activity can positively add to the street; and support employee health and wellbeing with increased levels of natural light in their working spaces.

As detailed at Design Principle 5, this public connection could be aided by the introduction of appropriate industrial or workspace uses into mixed-use developments, where they can help activate and engage with their surroundings.

Cladding materials and roof design should articulate and add interest to facades; and be used to help create innovative architecture. Simple, cheap materials applied in a considered way and/or colour can achieve this.

Service areas should be positioned behind buildings, screened from the public realm. Where it can be clearly demonstrated that this cannot be achieved, service areas must be designed to minimise their visual impact on the building and surrounding area.

Where security measures need to be incorporated, innovative solutions and designs should be sought that do not result in large blank elements. Retaining visual permeability must be a key design requirement, coupled with the effective use of landscaping to help soften any security structures. The application of art within or onto structures and infrastructure should also be considered as a means of helping to enhance the appearance of such measures.

Proposals must create buildings that read as one, with a single architectural design/language applied across all facades. Focus must not be given to a single façade, with a secondary design solution applied to other elements, unless these are not publically visible.

CITY NOTE **LW-29**

Retail and leisure

The City Council recognises national retail and leisure operators often utilise standard format store designs driven by operational needs and desires of their business. But these can often lead to inward looking developments, which offer little to their surrounding environments.

The design of retail and leisure uses must ensure they are not solely driven by the internal function of the building. Proposals must successfully balance the desires of the occupier and user, with the successful integration and enhancement of the surrounding environment. In achieving this, designs must apply a scale, mass, façade design and layout that effectively integrates into the existing urban grain; and not introduce buildings out of scale with its surroundings that ignore primary frontage and focus on its car park.

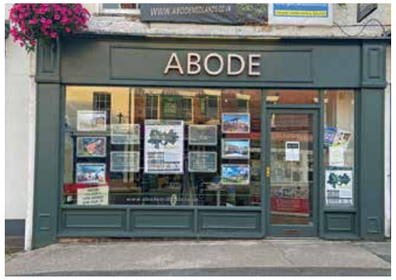
CITY NOTE **LW-30**

Extensions to non-residential buildings

Extensions to non-residential buildings, as with any development, must be of a design that aligns or enhances the host building and its surroundings. Designs and their associated materials palette should align with the existing building, unless there is a justified architectural rationale for an alternative approach. The City Council will assess extension proposals in the context of the resulting building and not the extension in isolation. In this respect, the resulting scale and mass of the extended building as a whole will be considered and the relevant principles within this document applied.

Where a roof top extension is being proposed, the design must give specific consideration to how this will alter the character and balance of the existing building. Roof top extensions must be of an appropriate scale, design and form to ensure they read as subordinate interventions to the host building. If proposals are purposefully seeking to change the character of a building through a roof extension, this will only be supported where it will result in an enhancement to the host building and surrounding area.

Where a host building is adjacent to residential uses, proposals must align with the city's minimum privacy distances and the 45 degree code as set out at City Note LW-4.



SHOP FRONTS DESIGN

Shop fronts* and signage make an important contribution to their surroundings; and should be designed to enhance and harmonise with the building's architecture and character of the surrounding area.

Where existing historic shop fronts and their relevant detailing is present, these must be retained, restored and re-used using appropriate materials and detailing. Where sited within a listed building or in a conservation area, the City Council will not support the removal of an historic shop front, unless it can be clearly demonstrated that repair cannot be undertaken.

* *Shop fronts refers to retail, commercial or leisure units located within city centre, district centres, local centres or stand-alone units.*

CITY NOTE **LW-31**

Key design principles

The architectural period and historic use of a shop front and/or host building will have an influence on the detailing and proportions associated with a specific design; but the key components of a shop front have endured and should be appropriately integrated into any refurbishment, replacement or new shop front.

Where an existing historic shop front is present, all components and detailing should be retained and restored. If an historic shop front has previously been removed, new development should reinstate a traditional design.

CITY NOTE **LW-32**

Key components

The below key components should work together to create a well-proportioned, balanced shop façade, that positively adds to the surrounding street environment.

The detailing and style of any new or replacement shop fronts/components must be influenced by the architectural period of the property and historic styling of an associated shop front. As with any development, undertaking a character assessment will help inform the design of any shop front or component.

Pilaster or column
Pilasters and columns are the vertical elements, which help frame the shop front and contribute to the plot rhythm of the street.

Corbels/Console
Element/bracket that book-end the fascia, support a projecting cornice and conclude the pilaster.

Stallriser
The stallriser is a plinth element that helps frame the shop windows; gives protection against the pavement; and provides an area where internal display furniture can be located at an appropriate level without masking the window.

Fascia and cornice
Fascias and their accompanying cornice detailing conclude the framing of the shop front; and provide an area to locate the use's primary signage.

Fascia can be one of the most important elements of a shop front, but designs must ensure they do not over dominate a façade or mask other elements of the building or shop front. This must be considered in the context of their size, materials and style. Internally illuminated, boxed systems will not be supported by the City.

Windows and glazing bars
The proportions and emphasis of the shop window must align with the other shop front components and not introduce a style or size that hinders this.

The exact style and proportions will vary from different periods but where appropriate, glazing should be divided by mullions and transoms to help tie the glazing proportions to the other components. Transoms should generally align with the top of the door frame, with the mullions extending above and below.

Ornate or period specific window styles and detailing (such as bow windows, small panes, stained glass, bays) should only be applied where they form part of the historic style.

Doors
As with the shop windows, the size and proportion of doors should be appropriate to the scale/width of the shop and be of a design that aligns with the shop front. If recessed doorways form part of the traditional style, these should be retained.

Where open fronted units are to be created, the sliding or bi-folding system utilised should provide an appropriate rhythm to the shop's façade when closed.

Materials and colours
Traditional shop fronts should be constructed from timber; unless historically the particular style was constructed of other materials. UPVC, fibre glass or perspex will not be supported within conservation areas or historic buildings.

Where a modern shop front is to be created, alternative materials may be considered acceptable, where they help achieve a quality outcome.

Within conservation areas and in historic assets, colours applied to the shop front should generally be muted and matt in finish.

External lighting
Within well-lit street environments, it should not be necessary to install lighting to the fascia, hanging sign or shop front. The combination of internal and street lighting should be sufficient to present the business during evening periods.

If it can be demonstrated that external lighting is needed, this should be discreetly located and focused using LED units. Internally illuminated fascia boxes/signage will not be supported.

If specific lighting forms part of an historic design, these should be appropriately detailed and designed.

Merging of multiple units into single shop
Where development seeks to merge a number of existing units to create a larger, single unit, the existing shop front proportions should be retained. This will preserve the existing character of the street, keeping the plot rhythm and balance of the street scene.

To tie the units together, single colours and consistent signage should be applied.

Blinds and canopies
Retractable canopies and blinds can form an important original component of historic shop fronts, helping to provide weather protection to the use and customers. Where these are present, they should be retained/restored.

Blinds or canopies can rarely be successfully retrofitted to a property, unless it forms an integrated part of a new shop front. Any such proposals, must clearly demonstrate that it will not negatively impact on the shop front, building or character of the surrounding area.

Blinds or canopies that contain lettering, are made of reflective, fluorescent stretch fabric or are permanently open will not be supported.

Security shutters
To aid the security of shop fronts out of operational hours laminated glass should be installed rather than shutter systems. If shutters systems are required, these must be visually permeable and internally fitted. Shutter systems will not be supported on historic shop fronts unless the need is proven; and an acceptable solution that does not negatively impact on the historic fabric and significance of the historic asset can be provided.

Signage and advertising
Shop signage should be confined to the fascia and an appropriate hanging/projecting sign if desired.

Fascia signage should not extend vertically beyond the property's fascia, or project beyond it through the use of box fascia signage. Signage should utilise individual lettering and/or logos, painted directly to the fascia, or through the use of individual characters mounted to the fascia.

Internally illuminated and box signage systems will not be supported, unless it can be clearly demonstrated that it will not negatively impact on the building or surrounding area.

Projecting and hanging signs must acknowledge the design of the shop front and add to the character of the surrounding street scape. They should generally be sited at fascia level, and not obscure other building or shop front detailing. Their designs should be simple in size, style and level of information presented on them. Materials should match those of the shop front; and be mounted via a complimentary system. Illuminated box signs will not generally be supported, unless the design aligns with shop front and positively adds to the surrounding area. Where an historic sign exists, these should be re-used by the development.

Signage should not be applied to windows were they will have a negative effect on the streetscene via the creation of a blank façade.

Signage and lettering located above the shop front, on the upper floors of a building will only be accepted where they form part of the historic character (such as those painted onto masonry).

Totem signage
The need for a totem sign must be clearly justified by a proposal, outlining why a lower level sign will not deliver an appropriate level of awareness or presence. Where totem signs are accepted, they should be of a scale and design that sit appropriately within their surroundings and not dominate.

If the need for lighting can be justified, consideration must be given to the potential impact this may have on neighbouring uses.

Signage strategies
Allied with the above guidance, proposals that include multi-retail units (new build or refurbishment) are encouraged to create signage strategies for the whole development. This should be used to establish a consistent format and style to be applied across all units, whom ever occupies them. Strategies should cover the design, size and location of signage, which should complement the architecture of the building and style of the shopfronts.

Appropriately applied and integrated into lease agreements, the strategy should be used to ensure the quality and design of the wider development is not diminished by poorly designed or located signage.

CITY NOTE **LW-33**

Services and plant infrastructure

The introduction of external infrastructure related to the operation of the business, must be effectively integrated and located to not hinder the design of the shop front. Vents or extraction systems should be sited away from street frontage. Where this is not possible, they must be sited and of a design that aligns with the shop front. Where a desired method/infrastructure cannot achieve this alignment, alternative infrastructure must be explored. Externally located wiring, drainage infrastructure and service boxes (such as burglar alarms), should not be located in prominent locations or over architectural features.

CITY NOTE **LW-34**

Modern shopfronts

As with traditional shop fronts, modern and contemporary designs must compliment the architectural style of the host building and enhance the surrounding street scene.

Were shop fronts are being designed as part of a new building, this should enable the architect to create an integrated frontage that forms part of a coherent building design. The style of the primary building must inform the composition of the shop front, with traditional components utilised where appropriate. If fully glazed shop fronts are proposed, the detailing and structure must align with the wider façade. Frameless systems may offer the most appropriate solution.

If proposals are seeking to introduce a contemporary design into an historic building, the design should be guided by traditional shop front components and utilise appropriate materials, creativity and craftsmanship to create a quality outcome, which enhances the street scene. Any associated signage should integrate effectively with the design, as detailed above.

Where a contemporary shop front requires a bespoke signage system or strategy, the City Council will assess these on a case by case basis, ensuring any proposals complement the shop front design and do not have a negative impact on the surrounding street environment.

Generic shop fronts and signage that fail to positively contribute to the streetscene will not be supported.

CITY NOTE **LW-35**

Alternative uses and conversions

Where an existing shop unit is to be converted into an alternative uses, such as residential or office; the character of the historic use must be retained via the retention of the existing shop front, or through the creation of a new frontage that mirrors the form of a shop front. This will help ensure the retail character of the building and surrounding area is retained, despite the use diversification.

The design challenge will be to retain the character of the shop front, whilst creating quality internal environments (particularly for residential). Bespoke solutions should respond to the specific site, considering internal layout and the use of internal partition/ secondary frontage or screens or partial opaque glazing where appropriate.

CITY NOTE **LW-36**

Uses at upper floors

Use of space above retail premises for business or residential uses can aid security for the ground floor function; and can support sustainable communities. The City Council supports the principle of using upper floors, but their introduction must not detract from an established character or streetscene through upper floor signage or window displays. Uses that require dominant signage and/or window displays should be located in ground floor retail units.

Where businesses are located above retail units, any signage must be limited to vinyl lettering on upper floor windows and a name plate at the ground floor entrance of the business. Lettering should be of size to ensure the internal space retains natural light. The name plate should contain key business information and be of a design that aligns with the surrounding shop fronts. Appropriately sized engraved or painted metal plates should be sufficient to fulfil this function.

The introduction of new entrances at street frontage to serve the upper floor use must not impact on the plot rhythm of the street. New developments should seek to create generous entrance areas that replicate an establish plot width and shop front form; or introduce a design that effectively divides the plot, whilst retaining the visual rhythm. Where entrance cannot be appropriately integrated at street frontage, alternative locations must be sought.

DESIGNING TALL BUILDINGS

Tall buildings present creative opportunities for architects and the city; and as the number of tall buildings continues to grow, it is important these opportunities deliver exemplar architecture that adds to Birmingham's evolving ID, through skyline to street enhancement.

PRIMARY DESIGN CONSIDERATIONS

CITY NOTE **LW-37**

Comply with Civil Aviation Authority limits

Due to the city centre's proximity to Birmingham Airport and its associated flight path, tall building proposals must engage with the airport/Civil Aviation Authority (CAA) to understand any concerns they may have related to the height of the building, or the construction methods to be employed.

As key consultees on tall building proposals, it is important applicants understood and effectively respond to any concerns or objections the CAA may have. Early engagement with them is encouraged.

CITY NOTE **LW-38**

Adding to the skyline

Tall buildings must positively add to Birmingham's skyline, enhancing its distinctiveness, variety and visual appeal; whilst aiding legibility through the urban environment.

To successfully contribute to this continued growth, architects must consider and justify the role proposals will have on the skyline and how it will relate to its counterparts. Whilst all tall buildings should be elegant forms that add to the skyline, landmark creation does not always need to be achieved. Retaining the prominence of an existing landmark, whilst introducing a new form can present a greater challenge for an architect; and is something that needs to be effectively balanced as the number of tall buildings increase.

CITY NOTE **LW-39**

Landmarks and key views

Allied with their skyline setting, proposals for tall buildings must consider mid and short distance views of existing landmark buildings and cityscape; and the potential impact proposals may have on them. The role and recognition of existing landmarks will in part be derived from their prominence within the city and how people associated with them. As aids to wayfinding and contributors to identity, views and landmarks can become cherished by the city's residents.

The development of tall buildings present opportunities for further enhancement of Birmingham's cityscape, but appropriate consideration must be given to existing landmarks and views in the siting and design of them.

In consultation with the City Council, key views and landmarks should be identified, with applicants demonstrating (through imagery and submission of a 3D model) how their proposal will sit within and change these. If a proposal is seeking to actively change a view and/or create a new landmark, the rationale and architectural response to this must be clearly justified.

CITY NOTE **LW-40**

Architectural quality

The architecture of tall buildings must be driven by a strong architectural ethos that considers the 'street, body and crown' of the building to create 360 degree, cohesive forms that enhance the city's streetscape and skyline.

The method and systems selected to construct a given building will have an influence on its layout and form. As such, the rationale for those selected must be explained, with the methods effectively balancing design and viability.

Street
In order to effectively integrate with their surroundings and give a human scale to the building at street; how the building 'hits' the ground is key.

Without becoming a stand-alone element, the base must effectively contribute to the activation of the street and where appropriate, have a façade scale/proportion/emphasis that acknowledge its surrounding street scape context. Successfully considered, the base element can help manage any challenging juxtaposition, whilst effectively launching the grand scale of the building above.

The way in which the base element grounds the building architecturally will be led by the site and design, but it must contain active elements of the building (primary entrances and lobby, amenity space, ancillary active uses (café, gym, gallery, office, etc.)) that provide public and private activation. Blank elements, plant and servicing functions must be sited away from primary frontage. Where they are located, their impact must be minimised by considered detailing and design that complements the wider façade. The integration of living walls must be considered in these blank areas.

Body
The body of the building is the primary expression of the architecture, as its most significant element. Whilst informed by the footprint and floorplan, these must be elegant 360 degree expressions, with symmetrical, well detailed façade that coupled with its form and mass lead to elegant punctuations in the skyline.

In composing the façade design, acknowledgement of the façades overall scale must be recognised, with façade proportions and detailing reflecting this. As with all buildings, well executed simplicity can often provide the most elegant outcomes.

Crown
The successful transition from the building's body to its crown is fundamental to creating an effective conclusion to the building and façade design. A considered crown can complete the landmark status of a building (if desired); provide reference points within the city's landscape; and help the successful integration of the building into the city's skyline.

Balanced with these wider considerations, the crown's primary role must be to successfully complete the building's architectural form; and not attempt to create a stand-alone or 'obvious statement' feature that interrupts this. In some cases, subtle variations to the façade design and considered architectural lighting can deliver successful outcomes.

Practically the crown should be used effectively to mask/screen any roof top plant.

Mass
The overall mass of the proposal must be a key consideration of any design, ensuring an appropriate balance is achieved between floorplate capacity and the form of the building. Proposals must seek to create 360 degree slim, elegant forms with scale (height) used to deliver capacity (where justified), rather than mass. The City Council will not support dominating slab blocks that impose on street and skyline.

CITY NOTE **LW-41**

Ensure designs are credible

The City Council gives great importance to delivering architecture as approved. Tall buildings are particularly important in this respect, given their visual prominence and the development costs involved. Therefore, tall building proposals should demonstrate they are deliverable, both technically and financially. It is important to be sure the architecture approved is not diluted throughout the process of procurement, detailed design and construction.

CITY NOTE **LW-42**

Clusters and grouping

Carefully grouped tall buildings will help create a unique and memorable urban environment. But conversely, an indiscriminate proliferation of tall buildings may detract from the quality, form and legibility of the city. The City Council will seek to create a balanced rhythm of tall buildings that considers the city's skyline and their surrounding street environment, ensuring a degree of human scale is not lost.

Viewed in this context, designs must consider how their proposed siting, scale, form and layout relate to existing (and proposed if relevant) tall buildings. This should consider not only the relationship with these buildings, but also how it could aid 'the street' and human experience of the building and its surroundings.

Designed and planned within this cumulative context, clustering should aid skyline cohesion and create a better relationship between buildings of a similar scale. At street, clustering must not lead to character change that has a negative environmental impact. Whilst the scale and façade articulation can become interesting features viewed from the street, these human environments must also be considered in context, with individual proposals ensuring they engage with the street, but also uses opportunities (with its cohorts) to enhance the public realm. This could be via direct creation or enhancement of street and spaces, and/or by responding to, creating or framing views and focal points from the street.

A single tall building is insufficient on its own to justify the establishment of a cluster of tall buildings around it. Where clustering is proposed, it must be demonstrated that the character change resulting from development is acceptable; proposals will positively add to the city's skyline; unacceptable change in micro-climate will not occur; and development will not unacceptably diminish the prominence of an existing building's role in the skyline, if relevant.

CITY NOTE **LW-43**

Shoulder elements, ancillary clusters and plinths

Where the site extends beyond the tall building's footprint, the introduction of shoulder buildings, lower clusters and/or plinths can be an effective way to aid viability, utilise the wider site and help proposal integrate with their surroundings.

In designing these secondary elements, architects must have a clear design rationale for them considering how they relate to the primary tower; ensuring their siting, form, scale, mass and façade design support its prominence, whilst delivering a cohesive design. The principle of applying a secondary element must not be assumed as acceptable. Their inclusion will be assessed on a site by site basis, balancing the desire to maximise development, with the impact on the design of the primary tower, the quality of internal space and the surrounding street environment.

Where supported in principle, their design (facade, form, mass) must enhance the character of its surroundings, helping the proposal engage and integrate with the street environment and its surroundings.

The height of shoulders and ancillary clusters must have a clear architectural rationale that ensure balance is applied across the site and wider area, ensuring the prominence of the primary tower is not compromised by over bearing secondary elements.

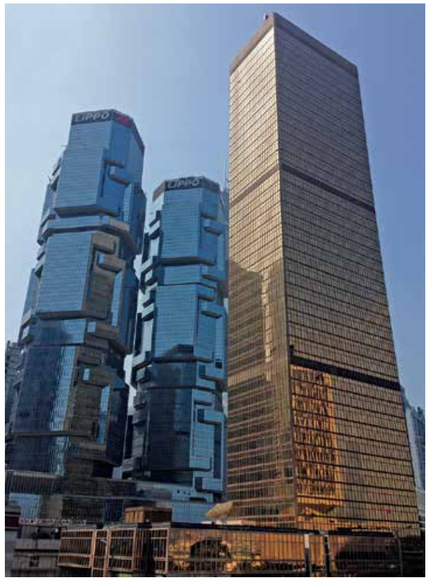
The height of a shoulder building must be given particular focus, as elements attached to the primary tower. Their presence will always have the potential to compromise the elegance of the tower, which any proposals must effectively resolve. The proposed height of a shoulder will play a key role in this, with heights needing to be significantly lower than the tower. The City Council believes shoulders no more than 1/3rd the height of the primary tower can achieve the balance needed. Proposal beyond these proportions must have a clear architectural rationale that does not compromise the delivery of an elegant primary building.

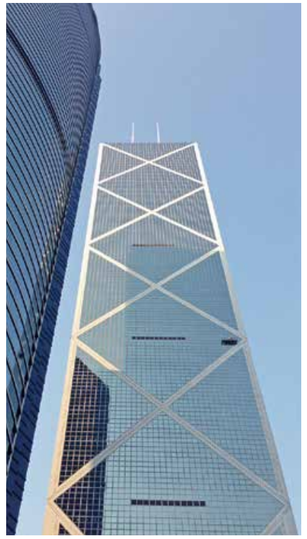
Where a site has the capacity to accommodate a cluster of secondary buildings, proposals must read effectively as a block; integrating with and acknowledging the surrounding context in relation to the siting of high elements, the tiering of heights across the cluster and the collective mass of the proposal. The prominence for the tall building must remain a key consideration; with any dominant secondary tall building/s having a justified rationale. The characteristic, location and size of a site will influence the scale and form considered acceptable for the immediate cluster; as such the City Council will assess proposals on a site by site basis.

Podiums can be beneficial from an amenity perspective, yet challenging architecturally. As detailed below, tall building can have a negative impact on the surrounding environment and amenity of existing uses. Whilst a degree of change may be acceptable, podiums can be effectively utilised to divert/mitigate wind turbulence at street level created by the tall building. They may also allow flexibility in the siting of the tower (whilst retaining a strong presence at street) that could reduce shadowing and/or overlooking on adjacent environments.

From a design perspective, the challenge is to create a confident transition from the tower into the podium; and ensure the scale and mass of the podium helps the proposal integrate with its surrounding streetscape, introducing a degree of human-scale.

Whilst podiums can interrupt the 'pure form' desired from a tall building, there use must be considered where they could help mitigate environmental and/or amenity issues created by the tall building.





SURROUNDING ENVIRONMENT

CITY NOTE **LW-44**

Minimise and mitigate impacts on the local environment and microclimate

The design of tall buildings will need to consider overshadowing, wind, air flow and noise impacts in the vicinity of the proposed development. Within the context of their surroundings, designs should effectively consider and seek to mitigate any impacts on the amenity of nearby buildings, or the use and character of public or private spaces.

In order to assess any climatic or environmental impacts of a proposal, initial designs should test and model different forms, heights, layouts and block arrangements to help ensure any climatic impacts are reduced and managed. Evidence of this testing should be submitted with a proposal; together with detailed wind, sunlight and shadow studies.

Wind studies

Tall building proposals must undertake wind assessments to understand the influence it may have on the wind micro-climate surrounding and within the site.

Proposals must ensure they do not result in a change in wind climate that exceeds the existing wind speeds or the City (of London) Lawson Criteria associated with the character and use of the space. This should relate to public and private realm surrounding the site; and private amenity spaces proposed by the development. Within these private spaces, proposals should ensure 'frequent sitting' speeds are achieved where seating areas are proposed; with 'occasional sitting' speeds sought across other areas where sitting and dwell may occur.

The design of amenity space should respond to the outcome of wind studies (allied with sun light and shadowing), to help ensure spaces are useable and the appropriate planting is specified.

The City Council supports the guidance created by the City of London (Wind Microclimate Guidelines, City of London, August 2019), which proposals for tall buildings within Birmingham must effectively align with and respond to (replacing London specific data with Birmingham where relevant and available (e.g. Annex A: Wind Climate Properties of City of London Guidance)).

https://www.cityoflondon.gov.uk/services/environment-and-planning/planning/design/Documents/city-of-london-wind-microclimate-guidelines.pdf

Wind Microclimate Guidelines table

All tall buildings (15+ storeys) within Birmingham should undertake a combination of computational (CFD) simulations and wind tunnel testing, relative to the height proposed:

Wind assessments

15 to 30 Storeys -
computational (CFD) simulations and wind tunnel testing.

Above 30 Storeys -

1. Early stage massing - wind tunnel testing or computational (CFD) simulations.
2. Detailed design - wind tunnel testing and computational (CFD) simulations.

Reference source: Wind Microclimate Guidelines, City of London, August 2019.

Daylight, sunlight and overshadowing studies

Designs should seek to maximise levels of natural light within proposals, for its immediate environment and to occupiers of neighbouring buildings. The BRE guide (Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice) as the best available tool for understanding the impact of a tall buildings on adjacent buildings and spaces; and proposal must use it to understand the changes resulting from their development.

However, the City Council recognises the levels reflected within the BRE guidance relate to a suburban environment, whereas tall buildings are largely located in dense urban environments where levels of daylight and sunlight can typically be below these targets. Therefore, the weight attributed to the conclusion of these studies will be balanced against the scale of the impact, character and nature of the surroundings, site constraints, policy aspirations and other material planning considerations.

Category	Mean and GEM wind speed (5% exceedance)	Description
Frequent sitting	2.5m/s	Acceptable for frequent outdoor use e.g. restaurant, cafe.
Occasional sitting	4m/s	Acceptable for occasional outdoor seating, e.g. general public outdoor spaces, balconies and terraces intended for occasional use, etc.
Standing	6m/s	Acceptable for entrances, bus stops, covered walkways or passageways beneath buildings.
Walking	8m/s	Acceptable for external pavements, walkways.
Uncomfortable	>8m/s	Not comfortable for regular pedestrian access.

Source: Wind Microclimate Guidelines, City of London, August 2019.

CITY NOTE **LW-45**

Location of tall buildings

The development of well-designed tall buildings may be supported in the following locations:

1. The City Centre Core (as defined by the BDP - Plan 5 p.41 and at City Note LW-44).

2. Along the primary corridors and gateways from the A4540 into the City Centre Core.

3. Within large scale regeneration projects and areas of change, where the role of a tall building can be justified.

Tall buildings will not be accepted:

1. Within any of the city's conservation areas.

2. In locations that would have an unacceptable impact on the significance of a listed building or heritage asset.

3. Where it would impact negatively on the city's skyline, an existing character area, key views and/or an existing landmark building.

4. Lead to unacceptable impact on surrounding environment or adjacent uses.

5. Where it is contrary to specific site or area guidance within a draft or adopted SPD.

Where a proposal is seeking support for a tall building that does not align with these locations or criteria, applicants must clearly demonstrate how their proposal will positively enhance its surroundings and contribute to the wider place-making agenda of Birmingham.

Location of the City Centre Core 'Quarter', as defined by the Birmingham Development Plan 2017.

DEVELOPING WITH BIRMINGHAM'S WATER ASSETS

CITY NOTE **LW-46**

Overlook, engage and activate water spaces

When designing adjacent to a water asset, architects and landscape architects should ensure the asset is one of the primary focal points; reflected in the orientation and layout of the buildings and its associated landscape.

As with any area of public realm, development adjacent to a canal, river or other water asset should positively use the asset to help create developments that enhance the water asset and their associated landscape through overlooking and surveillance; in turn linking these natural assets to occupants and users.

Beyond this visual connection, the City Council encourages appropriate uses to engage and animate spaces with entrances and use spillage that help bring day-long activity to the waterside. There may also be opportunities to safely engage directly with the water asset through leisure or transport activities that pull the animation into the water resource.

Where a boundary between the waterside and private space is desired, these must be permeable and constructed of high quality materials, which acknowledge and enhance the character of the waterside.

CITY NOTE **LW-47**

Access

Key to the successful use and animation of the water resource is access to the spaces; which development should seek to enhance and create for it occupiers and the public.

Where there are existing routes and access points, these should be effectively integrated or appropriately re-sited and enhanced. If existing links are not present, designs must seek to create new routes and spaces that add to the wider route network. Where such gains are not proposed, designs must clearly demonstrate why this cannot be achieved.

In designing and enhancing routes and spaces, proposals should apply quality materials and furniture that complement their surroundings and help support their multi-use nature. This should lead to routes and spaces than can enable health, leisure and sports uses to take place. Designs should also consider how the hard spaces may aid active use of the water for transport or leisure, such as enabling canoes or paddle boards to enter and exit the water.

To aid awareness and way-finding of a wider route network, there may be a desire to introduce way-finding signage within a landscape design. The need for such furniture should be balanced against the presence of landmarks and the legibility of the network, which may negate the need for it. Where the introduction of signage is accepted, it must be effectively integrated into the landscape design and not lead to cluttering.

Where a culverted water course is located within a site, development should seek to day-lighting or re-naturalisation these areas (in consultation with the Environment Agency) to improve their functionality, GI contribution and create a feature within the site.

CITY NOTE **LW-48**

Shading and environment

The impact a development may have on the water asset's environment must be considered when conceptualising mass, scale and site layout of a proposal.

These elements can be key determinants of whether a scheme effectively integrates and enhances the water asset, or negatively impacts upon it. Poorly sited and scaled, development can create shading, and/or contribute to a tunnelling effect along the canal or river corridor. Cumulatively, or singularly, the resulting waterside environment will inhibit active use of these key spaces; and over prolonged periods, shading over a canal environment can lead to changes in the biodiversity and balance of its ecology.

In developing concepts, architects must undertake sun path and shading studies to help determine a design solution that will not conflict with the environment of the canal or water resource; whilst appropriately acknowledging the surrounding character.

CONSERVING AND UTILISING BIRMINGHAM'S HISTORIC ASSETS

CITY NOTE **LW-49**

Extensions and alterations to historic assets

Extensions and alterations to listed buildings, buildings in conservation areas and local heritage assets have to give appropriate consideration to the significance of the building (as set out in Design Principle 3). In some cases it may be difficult to extend the building at all, however, where an elevation is less significant to the building; its position is not prominent; and the fabric of the wall affected is of less importance, extensions can be considered.

Physical impact is important to address and as little of the connecting fabric should be removed as possible. Similarly, sensitive connections should be sought, for example, simple glass links can be an effective way of reducing impact.

Design and materials need careful consideration and the approach taken should be clearly explained within the proposal's Heritage Statement; allied with a clear explanation as to how the proposal successfully aligns with the following principles:

1. The most sensitive location has been sought (for a listed building: where fabric is already altered, damaged or lost and in the least significant location), (within a conservation area: where the public view of the building is least visible, unless this resolves to develop a negative void in the street scene).

2. The least amount of historic fabric needs to be lost.

3. The most sensitive connection between new and old fabric is employed to ensure that the visual connection has limited impact and the works are more readily reversible.

4. Where demolition is to take place and fabric lost, the least significant fabric is removed (where fabric is already altered, damaged or lost and in the least significant location).

5. Insertion of new fabric is reversible, scribes round historic features and is fixed in such a way that does not cause permanent damage.

6. The design of the new extension is sensitive and preserves and enhances the buildings special architectural and historic character:
   i. Small extensions shall be in keeping with the proportions, design, finishes and composition of the host building.
   ii. Larger extensions read as a discrete modern structure reflecting 21st century design of high quality finish and detailing.

7. The design and appearance of works and careful selection of quality materials is employed:
   i. Materials are compatible, with an acceptable appearance and do not escalate damp and decay.
   ii. They match the historic building in colour, finish, unit size, handling, bonding and fixing, if the design is reflecting the historic building.
   iii. Of a high quality contrasting material if the extension is of modern design.
   iv. It may be appropriate to express an alteration if the works affect significant historic fabric.
   v. Paint finishes employ an appropriate pallet.

8. Extensions and alterations to buildings that currently make a negative contribution to the character and appearance of a conservation area shall:
   i. Seek to enhance the overall character and appearance of the building through new entrances, shop fronts, recladding and works to the windows and roof.
   ii. Ensure the design of an extension does not exacerbate the poor design of the host building and its harm to the conservation area.

9. Opportunities to embed renewable energy and technologies within the extension shall be considered.

10. Building recording is undertaken prior to work commencing.

The above principles will also apply to curtilage structures and boundary walling that benefit from the listing.

CITY NOTE **LW-50**

Windows in listed buildings

Windows are one of the most significant aspects of historic buildings and are often the component of a building under most pressure for change. Whilst it is important to ensure windows contribute to keeping the building in use and weather tight, this must be achieved whilst conserving the historic significance of the building.

In order to achieve this balance, a sequential approach will be applied to consents involving windows, ensuring the historic fabric is retained where possible. Through this approach, applicants must demonstrate that repair cannot be undertaken, before seeking the replacement or removal of the window. Exceptions to this may be where poor quality windows have previously been installed, and appropriate replacements will enhance the character of the building.

Where consent is sought for the introduction of a new opening within existing historic fabric, consideration will need to be given to the significance of the fabric/elevation and how the new opening will impact on this.

Windows within a new extension of a listed building may not require the same focus on retention, but consideration will need to be given to how their design and location relates to the listed building.

Sequential approach for works to windows in listed buildings Development involving works to windows within a listed building, must clearly demonstrate (within the Heritage Statement) that they have undertaken the following sequential approach, focused on retaining original windows, unless there's clear justification for applying other options.

All removal of windows require listed building consent.

1. Retention of existing windows.

a. An original window is a window that is contemporary to that phase/age of development and should only be removed if it cannot be repaired.

b. Later window (eg Victorian arrangements in Georgian openings or 20th century crittall in 19th century workshops) may also be of significance if they relate to the evolution of the building and comprise a good design delivered in sound materials. Again these should only be removed if they cannot be repaired.

c. If the window is of no significance, (1) modern (mock) replacement, (2) of poor design, (3) inferior materials, and (4) relating to a later and less significant part of the building, the windows may be considered for removal, subject to meeting the below.

2. Repair of existing windows.

a. This should replicate the design, materials and mechanical operation of the window. No double glazing can be introduced.

Some small repairs may be considered diminimus and not require listed building consent. However, this should be agreed in writing by the City Council.

3. Replacement of windows.

a. Where an original window (see 1a above) is removed then a like-for-like (design, profile, position, materials, opening mechanism and colour finish) replacement should be reintroduced.

b. If the window to be lost is a latter window of no significance (see 1c above), the new window should be of a design that relates back to the original window and not replicate the existing arrangement. This includes scenarios where poor quality windows have been consented and installed. Evidence will need to be provided to justify the design solution proposed.

c. Secondary glazing may be acceptable so long as their design aligns with the window itself. Double glazing is not acceptable in any part of the original listed building.

All replacement windows will require listed building consent.

4. New openings in existing listed fabric.

a. New windows should reflect significance of elevation and it may be possible to deviate away from original design to reflect the modernity of the opening. These works are likely to be the subject of further design analysis and discussion with the local authority.

All new openings will require a listed building consent.

5. Windows in new extensions (post war to present day).

a. As with new windows at (4), however non-UPVC double glazing (of an appropriate design) may be acceptable.

CITY NOTE **LW-51**

Maintenance and repair to historic assets

In order to help conserve historic buildings, structures and landscapes, continual sympathetic maintenance is needed.

The city's diverse portfolio of historic buildings are derived from a range of periods, each utilising traditional materials and building techniques, often more complex and incompatible with modern materials and techniques. Given these complexities it is important that a full understanding of the fabric and construction methods are gained, prior to any maintenance or repair work being undertaken. In the majority of cases, specialist expertise/craftsmanship will need to be appointed to undertake such works.

Works must be carried out using materials and methods that are compatible with those already used on the building. Failure to do this is likely to have a detrimental impact on the character and appearance of the building and also affect its structural integrity, causing permanent damage to its historic fabric.

Where works are being undertaken to a listed building and this requires listed building consent, materials should form a significant part of the heritage assessment.

CITY NOTE **LW-52**

Demolition in Conservation Areas

The demolition of a building within a conservation area will generally be resisted, unless the proposal will lead to enhancement of the area. In order to fulfill this requirement, proposals for demolition are only likely to be accepted where the existing building has a negative impact on the character and appearance of the designation. It may be possible to justify the removal of a building in a conservation area that is:

- Of a poor design.
- A modern building which lacks the appropriate level of connectivity and surveillance to the street.
- Constructed in poor quality or failing materials.
- Is modern building that does not align with scale and/or character of the conservation area.
- Is structurally compromised.

The demolition of a building of historic significance, which contributes (or could contribute via restoration) to the conservation area will not generally be supported. If the building is dangerous or structurally comprised, exceptions may apply, but detailed structural analysis of the building will be required to justify whole or partial loss.

In most cases the loss of the building and formation of a void is more harmful than leaving a negative building in place. It is therefore important that a replacement building is conceived and secured prior to the demolition being approved. This will prevent a negative gap, to the detriment of an area's character and neighbouring properties.

In exceptional cases a building may be removed without being replaced with only land remediation or landscaping required as part of the application. This may be where a building's removal will reinstate an historic urban grain/form (views, square, route, space), or to create a 'space' that will enhance the conservation area.

CITY NOTE **LW-53**

Demolition of non-designated heritage asset

Proposals must seek to conserve and enhance the historic significance of a non-designated heritage asset. Balanced against the significance of the asset (NPPF para 189 and 197), the loss of a local asset will generally be resisted unless it can be demonstrated that there is a clear justification for its loss:

1. Structural integrity - detailed structural report should demonstrate that the building's structural integrity is comprised, to the extent that demolition is required in part or whole.

2. Condition of the building - the works needed to refurbish/bring the building back into economic use, render the development unviable.

And/or

3. Development viability - linked with points 'a or b', or as a stand alone justification, a viability assessment must demonstrate that retention of the asset is not economically viable/cannot be incorporated into the proposal.

Where the proposed demolition of a non-designated asset is not the subject of a 'prior notification' then the above guidance will apply.

Prior to any demolition work commencing, appropriate building recording must be undertaken in accordance with Historic England Guidance.

CITY NOTE **LW-54**

New buildings in Conservation Areas

Conservation areas must evolve and not remain static, but equally their historic significance must be conserved and managed by new development. This can be realised in different ways via high quality modern or pastiche forms.

The City Council will consider the application of either form, subject to a clear rationale for the design, informed by an understanding of the surrounding historic character and role the development/site has within that. A Heritage Statement must clearly explain how the architectural approach has been derived from this understanding; and how it will effectively knit; or purposefully create juxtaposition with its historic setting.

In designing and justifying the development of new and replacement buildings in the conservation area, the following must be acknowledged and addressed by a proposal:

1. If the building is replacing a negative building within the conservation area, the scale and design will not be determined by the building being replaced but shall relate to the historic character and layout of the conservation area.

2. If the building is replacing a positive building within the conservation area, the following issues will need to be addressed:
   i. Only in exceptional circumstances will it be acceptable to rebuild the original building. Once the building is lost it is not appropriate to create a facsimile.
   ii. A replacement building will need to consider the significance of the urban design characterises of the lost building and ensure these are either met or improved.

3. All new buildings must acknowledge the historic character of its surroundings.

LIGHTING OF BUILDINGS AND PUBLIC SPACES

CITY NOTE **LW-55**

Architectural lighting

In designing external lighting schemes for a building, proposals should consider the context of their surroundings; the architecture and role of the building; and the existing lighting character of the area.

Where development is seeking to create, or re-use a landmark building, lighting designs should effectively provide the building with an evening persona appropriate to its architecture and setting. Consideration must also be given to how adjacent buildings and spaces are lit, and the cumulative effect of this. For tall buildings, lighting design must effectively add to the city's night-time skyline and its surrounding street environment.

Proposals involving or adjacent to an historic asset, must apply a lighting design appropriate to the asset, considering the architecture of the building to be illuminated and the impact this may have on the character of its surroundings.

Further guidance on the external lighting of historic buildings is provided by Historic England:

https://historicengland.org.uk/images-books/publications/external-lighting-for-historic-buildings/external-lighting2/

CITY NOTE **LW-56**

Lighting of public spaces

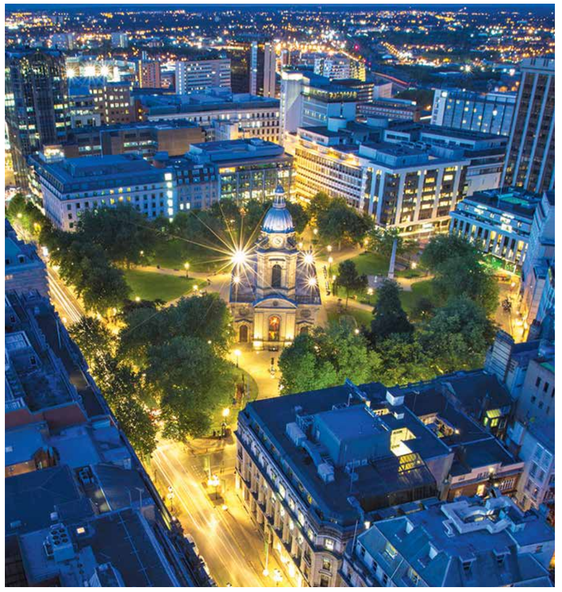
The effective lighting of public spaces is important to ensure they continue to provide safe routes and areas for pedestrians and cyclists. The specifications and requirement related to this functional lighting is provided by the City Council. Where this functional lighting is to be adopted as part of a highway, proposals must align with the City Council/PFI specifications for street lighting.

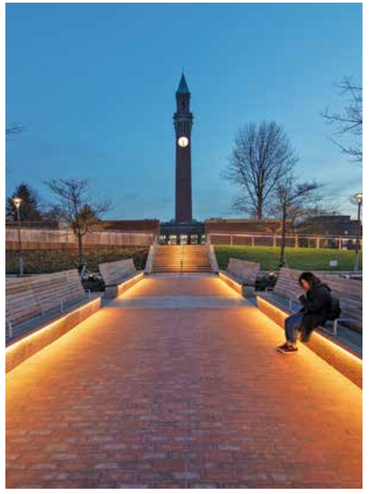
www.birmingham.gov.uk/downloads/download/546/street_lighting

Allied with the appropriate levels of illumination to aid user safety, public spaces and landscape elements offer the potential for feature lighting that can enhance the night-time character of spaces.

Where development offers this potential, its landscape design must effectively design for its day and night use, applying appropriate lighting to help create the night-time environment sought, including the illumination of features such as trees, water, planting or public art where appropriate. The lighting design should be an integral element of the landscape design, ensuring the night-time character of the space if considered during its design.

Allied with artistic input (as City Note LW-58), where appropriate, designs should utilise new technologies to aid the user experience and sustainability of the space.





CITY NOTE **LW-57**

Quality of furniture and fittings

The quality of lighting columns and mounting infrastructure must complement and align with the street furniture being introduced by a development; or help enhance the quality of the public realm in existing spaces. The siting of lamp columns, allied with other street furniture, must not clutter the public realm; and where possible serve a dual function, or be integrated into other street furniture or art. The use of catenary and building mounted lighting should be considered where it will not detract from the architecture of the host building.

Where lamps and fittings are installed to illuminate building facades, they must not add clutter to the façade or detract from the architectural quality of the building. Where possible, lamps and fittings should be hidden from view.

CITY NOTE **LW-58**

Artistic input into lighting schemes

Where it is appropriate, due to the scale or location of a project, proposals should commission an artist to help create lighting schemes that deliver more than their functional requirements.

Used productively, artists should be able to deliver more creative lighting proposals with the budget available, which could help enhance (or change) the night-time character of a space or building; further enhancing the architecture; deliver public art gains; and/or create a focal point that attracts users. Working with the right artists, it can be a cost effective way of delivering a strong visual statement to the benefit of the city and development.

The nature of the artistic output should be relative to the development and character of its surroundings, but may include simple interventions such as the creative siting and tone of lighting, to sculptural forms and bespoke lighting furniture. Developers must engage with artists during the early design stages of their proposal, to aid integration with the wider scheme.

The City Council's Cultural Officer will be able to link developers with local artists.

Further guidance and examples of creative lighting proposals can be sourced at http://www.luciassociation.org/

CITY NOTE **LW-59**

Impact of lighting on wildlife

Lighting designs must not damage or have an adverse impact on habitats or the night-time activities of notable species. Proposals that lie adjacent to the city's canal network, the River Rea or areas of green space, will be particularly sensitive. Engagement should take place with the City Council's Ecology Officer for any lighting proposal.

CITY NOTE **LW-60**

Operational flood lighting

Allied with application of guidance contained in the Institute of Light Professionals (ILP), Guidance Note 1: Guidance Note for the Reduction of Obstructive Light GN01:2020; the design of flood lighting schemes must adhere to the following:

- The height and size of floodlighting columns and equipment should be kept to the minimum needed for operational purposes.
- Where appropriate, landscape measures should screen the lighting installation from adjacent properties, green belt, green wedges or areas of nature conservation.
- Lighting levels adjacent to residential properties and their gardens, must not exceed the obstructive light limitation standards for environmental zones E2 at rear of properties and E3 or E4 (subject to location) to the front (as detailed in ILP GN01:2020).
- The minimum distance of habitable room windows to floodlighting columns should be 12.5m measured on a 90 degree arc from the centre of the window. Any reduction in this distance must demonstrate alignment with the obstructive light limitation standards, with a distance no less than the height of the column.
- Floodlighting must not be detrimental to the safe use of highways (including public footways and cycle routes); or the operation of railways, canals and Birmingham airport.
- Floodlighting adjoining or located in the green belt, green wedge, canal corridor and areas designated for nature conservation must not exceed obstructive light limitation standard E2 (as detailed in ILP GN01:2020).

Allied with the above guidance, the City Council may apply a condition to approvals restricting the times floodlights can be used, where they lie adjacent to residential uses or areas of darker landscape.

TELECOMMUNICATIONS INFRASTRUCTURE

CITY NOTE **LW-61**

Location of telecommunications Infrastructure

Most sensitive locations
In the most sensitive areas within the city, telecommunications equipment will only be accepted if it can be demonstrated that there are no other suitable sites in more sensitive or less sensitive locations and if the equipment has been carefully designed to minimise its impact on the specific attributes or use of the site. Bespoke or innovative design solutions may be required to justify the installation of equipment in such areas. These locations are:

- Listed buildings, their curtilage and setting, including those on the Local List.
- Conservation areas and areas adjacent to a conservation area.
- Historic parks and gardens.
- Education and health institutions.
- Others including sites in the Green Belt, Sites of Importance to Nature Conservation (SINCS), Sites of Local Importance for Nature Conservation (SLINCS), Sites of Special Scientific Interest (SSSI), Scheduled Ancient Monuments and other archaeological remains.

More sensitive locations
Residential areas - Residents may perceive telecommunications equipment to be a significant visual intrusion if it is close to and visible from within their home or garden. It can also cause residents undue concern about perceived health effects. Applications for telecommunications development in residential areas should demonstrate that no reasonable alternatives exist in less sensitive locations and account should be taken of the proximity to and visibility of the installation from nearby habitable room windows and residential gardens in order to protect residential amenity.

High quality open spaces - Telecommunications operators should avoid proposals in areas of open space of high quality unless it can be demonstrated that no reasonable alternatives exist in less sensitive locations. Where installations are necessary, key views should be protected. The BDP defines open space as: 'Open space encompasses a wide range of spaces, not just traditional parks and gardens, grassed areas and woods but also cemeteries, allotments and civic spaces…'. For the purpose of this guidance, high quality open space may have attributes that distinguish it from other areas of open space such as the quality of the maintenance regime; the contribution to the quality of life of the local community through historical or other association or through the nature and functioning of its use; or, it may form part of a larger open space network where quality improvements are proposed.

This includes canal and river corridors and curtilages where they form high quality open space. Where proposals involve development on playing fields, plans must define the extent of the playing fields and areas around the sports pitches to be affected by the development. Installations in areas of high quality open space or proposals resulting in the loss of public open space without adequate replacement are unlikely to be acceptable.

Less sensitive locations
Unless a site is in one of the defined most or more sensitive areas it will be in an area, usually more commercial in nature, where the installation of telecommunications equipment is more likely to be acceptable.

CITY NOTE **LW-62**

Siting considerations

The most obvious way to address the visual impact of telecommunication development is to site it in such a way that it blends into or is hidden by existing landscape or cityscape. Applicants will need to demonstrate the selected location achieves this requirement, considering and responding to the following:

- The effect on the skyline or horizon.
- The site when observed from any side.
- The height of the site in relation to surrounding land.
- The site in relation to existing masts, structures or buildings.
- The existence of topographical features and natural vegetation.
- The site in relation to residential property.

And/or

- The site in relation to areas designated locally for their scenic or conservation value and buildings of a historic or traditional character.

Mast and/or site sharing and the siting of equipment on existing buildings, structures or pylons should also be considered as a means of minimising the visual impact of an installation.

CITY NOTE **LW-63**

Design and appearance of infrastructure

All telecommunications proposals should be designed to minimise visual impact and intrusion. The decision to propose ground based or building based masts, antennae and cabins will depend on the respective impact that the proposal will have on amenity, visual impact, local character, skyline and neighbouring uses, and on the technical constraints of the required equipment.

Ground based masts
- Make the most of existing screening and backdrops - opportunities should be taken to use existing screening or backdrops, for example in the form of buildings or trees, to reduce the impact of development.
- Street locations - Where street based masts are the only option, they should be similar in character and appearance to existing street furniture and of a slim-line design. They should not be prominent in the street scene or add to clutter.
- New landscaping and planting - landscaping and planting can make a significant contribution to reducing the impact of masts by:
  1. Identifying critical viewpoints and planting at a distance from the site so that the visual intrusion of the mast is reduced. Agreements with other landowners may be needed to facilitate this.
  2. Planting around the base station compound to minimise visual impact closer to the site. Sufficient land should be included within the proposal to enable this to be achieved. Where landscaping and planting is carried out, adequate maintenance should be provided for and in the event of failure of shrubs or trees, these should be replaced during the next planting season.
- Cabins/cabinets - these should be of no greater size than is necessary to reflect the operational needs of the site and should be designed and use colour to match other street equipment. They should be treated and designed to reduce opportunities for vandalism and graffiti. In certain locations cabinets in their own right can appear to be particularly intrusive and preclude the site being acceptable. They must comply with City Council guidelines on the installation of street furniture.
- Compounds - these should be no larger than required for the plant and equipment needed to serve the site. They are unlikely to be located outside industrial or rural areas. Wherever they are proposed they should be unobtrusive and not have an adverse impact on the character of the area. The style and design of perimeter fencing should be appropriate to the location. In certain locations a perimeter wall or solid screen in appropriate materials may be a better way to screen off views into the compound. If vehicular access onto the public highway is required this should be constructed such that normal highway safety standards are not compromised.

Installations on existing buildings and structures
Antennae and related equipment on existing buildings and structures will often be more appropriate alternatives to establishing a new ground based mast, particularly where there would be little significant effect on the appearance of the building or structure and would not result in an unacceptable level of visual intrusion to adjoining properties.

Consideration should be given to the following:

- The height, scale and architectural style of a building or structure.
- The position and siting of the equipment which should seek to minimise its obtrusiveness against the skyline.
- The avoidance of rooftop clutter than may be visible from the street or nearby buildings.
- The size and finish of cabins or other equipment housing to enable them to blend in with other rooftop structures.

Cumulative impact
In designing and locating new infrastructure, consideration must be given to the potential cumulative impact of infrastructure clustering. Where there is existing telecommunications infrastructure within, or in close proximity to the proposed location, the applicant must demonstrate there will be no greater impact to the amenity of surrounding uses or visual impact on the character of the surrounding area.

The clustering of telecommunications infrastructure is unlikely to be supported in the 'Most Sensitive' and 'More Sensitive' locations.

Camouflaging and disguising equipment
The use of camouflage or the disguising of equipment, so it visually reads an something less intrusive, must be a principle driver for the design of all masts or equipment. Examples of the successful concealment of antennae include features such as flagpoles, street lampposts, signs and church towers. The use of GRP, which can be moulded into any shape and coloured appropriately, can be used to simulate masonry and stone features such as chimneys and plinths. Masts have also been designed as trees although they need very careful design and siting to be effective. Antennae have also been incorporated in commissioned works of art.

The City Council will work with operators to explore the merits of camouflaging telecommunications equipment where the visual impact of a proposal could be mitigated to make it acceptable.

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Birmingham Design Guide

Healthy Living and Working Places City Manual

Birmingham Design Guide Healthy Living and Working Places City Manual
produced by Birmingham City Council, Planning and Development, Inclusive Growth Directorate.

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