Leicester Friends of the Earth & Climate Action Leicester and Leicestershire

Local Plan Response

Climate change is going to impact on all of us immensely in the coming decades. Not only is the weather going to become more extreme with associated floods, storms, heatwaves and droughts; it is also going to affect the world's food production, economy and jobs. It is going to change what resources we can access and afford, including energy, food and materials.

It is essential that as a city, as businesses, communities and individuals we think about what will make us secure and able to live, not just survive, as these changes occur. We also need to reduce our carbon footprint fast, effectively, and in ways which do not penalise those with the fewest resources.

This means we need to think about our energy, water and food supplies as well as how we live, travel, power our homes, consume, earn our livings and interact with our communities. The Local Plan is a key part of this process because how a city is planned and designed impacts on what we can and cannot do, what our economy is based on, and can create strength in togetherness or widen divisions.

The world is going to change. We can ride the wave, or go under.

Guide to this document

Leicester Friends of the Earth and Climate Action Leicester & Leicestershire are very concerned about the level of ambition in responding to the climate and ecological emergency that is demonstrated by the current draft Leicester Local Plan. We have spent the last few months learning about planning, reading national Friends of the Earth guidance and other cities' local plans and discussing the current draft Local Plan. We have then used our research and our conversations to write alternative versions of some of the key policies, to show the City Council the level of ambition in responding to climate change that we believe is necessary.

In each chapter below, we give an introduction to explain our approach and then we present our versions of the policies in blue boxes. Where we have started with the City Council's policy in the draft Local Plan and then made changes, the alterations are marked: additions are in bold and deletions are shown with strike-through marks. Where these are unmarked, we have re-written them completely. Any remarks to the Council are given in square brackets and *italics*. Numbers in parentheses refer to notes at the end of each chapter.

We have only looked at the policies that relate to climate change. Where the connection might not be immediately obvious, we have explained why we believe that policy is relevant to our work directly above the blue box containing the policy.

[Please note that this version of the document is incomplete as we are still putting together our response to each chapter. We will submit a complete version later.]

Contents

The Vision

Our vision is to see Leicester build on its status as Britain's First Environment City to become a showcase for how to mitigate and adapt to climate change, leading the way for the UK in sustainability.

We want to live in a city of hope and aspiration where everyone shares in its success and where all benefit from sustainable economic, social and environmental wellbeing.

We want to live in a city that is diverse and inclusive, where inequality and deprivation are substantially narrowed and everyone is supported as we face climate change together.

We want to live in a low carbon city with a high quality, healthy environment, attractive open spaces, clean air, vibrant and inclusive sports and cultural facilities and cherished heritage sites.

Our vision of Leicester is a place where everyone who lives and works here feels connected and secure, and that the city belongs to them and they belong to it.

[We suggest that the Local Plan should also start by giving the carbon reduction targets for the city.]

The Principles

The Local Plan will seek to enable development that improves the economic, social and environmental objectives of Leicester through the application of the following sustainable development principles:

- living within the planet's environmental limits
- ensuring a strong, healthy, and just society
- achieving a sustainable economy
- promoting good governance
- and using sound science responsibly.

The council will work proactively with applicants and the community to identify solutions which mean that proposals can be approved wherever possible, in order to secure development that, as a whole, improves economic, social and environmental conditions in the area, tackles the climate crisis and supports nature's restoration and recovery.

Planning applications that accord with the policies in this Local Plan (and, where relevant, with policies in Neighbourhood Plans), with the principles of sustainable development, and which have benefited from meaningful public participation, will be approved without delay unless material considerations indicate otherwise.

Housing

If we are to tackle the climate emergency it is essential that housing is built in ways which minimise energy use, maximise renewable energy generation and is safe, affordable and fit to live in as climate change becomes more extreme. It needs to be built in ways which support people to live sustainably, by giving them community connections, enabling them to use active and public transport and ensuring that expensive resource and carbon intensive retrofitting will not be needed in the future. It needs to be designed and built in ways which improve the city's infrastructure and enhance its green spaces, improving biodiversity, food supplies and people's mental and physical health while reducing the impact of heatwaves, flooding and storms. It also needs to be affordable to rent, buy and live in – the low income people who have contributed the least to climate change are also the same people who will suffer first and most severely as it takes hold, and their housing should help and protect them – not make life harder.

Higher densities of housing in Leicester are important when tackling climate change for many reasons. They allow us to build on less of our green spaces and greenfield sites which are key to reducing the impacts of heatwaves, flooding as well as supporting people's mental and physical heath which will be strained by climate change. They enable people to walk and cycle rather than drive, reducing the city's carbon footprint and improving health. Low density housing locks people into car dependency, exacerbating climate change, discriminating against people without cars, and isolating people from their jobs, families and services.

Policy Ho01. Housing densities

The City Council will support proposals that help the city to meet its housing needs in a sustainable way, increasing the availability of affordable housing both rental and privately owned, and reducing the causes and impacts of climate change. The following housing densities will be required:

- Central Development Area – 100 or more dwellings per hectare (dph); and 150 dph or above on greenfield sites.

- Rest of the city – minimum of 70 dwellings per hectare; and 90 dph or above on greenfield sites.

The area measured to calculate the number of dwellings per hectare, is that of the area developed, not including the half of the original green space left as accessible green area to reduce the impacts of climate change (see policy H02).

Our green spaces can be enhanced with trees and ponds to reduce the effects of flood, heatwave and drought. Increased tree cover sequesters carbon and provides food as well as supporting biodiversity. These spaces also improve our mental and physical health. All of these are essential in the context of climate change. Where we have to build on greenfield sites, we need to ensure that the development can mitigate the impact this will have on the city's capacity to live with and reduce its contribution to climate change.

Policy Ho02. Making the best use of greenfield site allocations

Where greenfield sites are developed inside the city, half of each site is required to be retained as green space with public access.

This green space will have ponds and scrapes created to minimise the impact of flood and heatwaves on the surrounding area and to increase biodiversity. At least two thirds of the retained greenspace will be densely planted with trees and half of this area will be food trees.

In order to compensate for the reduced space for housing, the development will be required to achieve housing densities of 150 dph in the central development area and 90 dph in the rest of the city, and encouraged to achieve higher densities. Developers will be required to leave gardens, yards and communal spaces as natural ground for growing and not pave over them.

Where the land is owned by the Council, all dwellings will be required to be carbon neutral or carbon negative, by using fabric-first energy efficient design as far as possible, and including solar generation to cover the rest.

Where the land is not owned by the Council, all dwellings will be required to achieve reductions in CO2 emissions of 19% below the Target Emission Rate of the 2013 Edition of the 2010 Building Regulations (Part L) and water efficiency standards of 110 litres/person/day unless, in exceptional circumstances, it can be clearly demonstrated that this is either not feasible or not viable. They will also be actively encouraged to achieve higher carbon reductions.

Developments on these greenfield sites will be designed to actively discourage car use and encourage walking and cycling using principles such as direct routes to bus stops, bus service provision, reduced car parking in bays, car parking only on the edge of the development, safe cycle paths and parking, carpool only parking spots, narrow streets, parking bays combined with trees rather than plain on-street parking, and housing without garages.

Developments will be encouraged to think about and provide shared spaces for community use – ranging from covered drying and play areas to laundrettes, tool and toy libraries and shared office-type work space.

Affordable housing is especially important as climate change will increasingly cause floods, heatwaves, rising food prices and food shortages as it intensifies. All of these will affect those on a low income first and most severely. Therefore, they need to live in homes which will not require expensive retrofitting or increased

energy bills in order to heat, dry, cool and ventilate them. These are the people who have, and continue to, contribute the least to climate change and have the fewest resources to cope with it.

[Plan-level viability testing needs to be applied in a nuanced way to ensure it does not prevent affordable housing being built. Leicester should identify diversity in their local housing and land markets when writing the Local Plan, producing tailored affordable housing policies. Some councils including Sheffield, Leeds and Bristol already do this, varying the levels of affordable housing required in line with the expected land value uplift for different areas.]

Policy Ho03. Affordable Housing

In order to ensure the city gets enough affordable (especially social rental) housing, we set a requirement of 30%-50% affordable housing (and 80% of this proportion to be social rental housing), with an appropriate mix in accordance with policy Ho04, for all developments of 4 or more dwellings. The percentage requirement will vary within this range depending on the need and economic viability of the area.

Where site-level viability assessments are used, developers are required to fully explore every alternative to reducing affordable housing numbers, including identifying alternative forms of investment or public subsidy to deliver the required level.

In processing applications, policy-compliant schemes, both for affordable housing and for carbon neutral housing, will be prioritised in the planning system and rewarded with faster approval. (1)

Applications that reduce the quality of an approved scheme after permission is given for a scheme will not be treated sympathetically by the council.

If necessary (and where possible), the Council will use compulsory purchase orders in order to bring brownfield sites forward for development before greenfield sites are given planning permission.

Leicester City Council will support proposals which provide affordable (especially rental) housing meeting the climate change standards set out in policy CCDQP02. They recognise and will actively support the benefits of using a masterplan and small plot allocation system to facilitate development. (2)

If negotiation over site-level viability assessment occurs, all negotiations will be published and open to public scrutiny, with results and supporting documents available online in a standardised, accessible format. Documents which do not meet these standards will be inadmissible as evidence in viability negotiations.

The Council will also achieve the affordable housing target through the delivery of schemes through Private Registered Providers and Council's own delivery programmes.

It is essential to recognise that different people have different housing needs and that these needs change. By ensuring that an area provides a mixture of housing types, sizes, tenure and affordability, with differing levels of private outside space, it is possible to reduce underoccupancy with its associated high carbon footprint, as well as increasing public support for a project. If people are to accept that housing needs to be designed in ways which tackle climate change, they need to be able to believe that they will be happy living there. Additionally, if people are able to move to different sized houses in the same area rather than being forced to

move away, it both reduces their travel footprints as they stay near friends and family, and also strengthens community ties which are key in surviving climate change.

A good mix would include houses of various sizes with and without yards and gardens, along with flats of varying sizes with larger and smaller balconies. All would be designed with secure bicycle parking and high-quality sound insultation.

Policy Ho04. Housing Type and Mix

All new residential developments of 5 dwellings or more are required to provide an appropriate mix of housing, sizes, tenure types and private outside space to create mixed, balanced and inclusive communities having regard to the following:

- Securing efficient use of land and optimising density;
- The existing housing and tenure profile of the area, with an aim of balancing it;
- Local housing requirements and the need to redress any harmful housing imbalance that exists in the area;
- The characteristics of the site including its suitability for different housing types;
- The importance of housing being low energy, climate resilient and able to generate solar electricity.

Policy Ho05. Accessible housing

[We have no comments on this policy.]

Supporting energy efficient self and custom build is a way of encouraging more climate friendly housing in the city, as well as more variety within an area. It is generally lived in by the people building it who are therefore likely to be more open to ensuring it will cope with future climate change, and who are also more likely to use local builders, thereby reducing the carbon footprint of the development. It is a way of showing the local community what can be done to tackle climate change. Additionally, a proportion of people wanting to self or custom build are specifically looking to tackle climate change and will go well beyond any planning requirements. Increasing the proportion of such people and their experience in an area can increase the local community's knowledge and resilience around climate change.

Policy Ho06. Self-build, Custom Build and community led housing

The provision of energy-efficient new homes through self-build, custom housebuilding and other community-led approaches will be encouraged and a proportion of self-build/custom-build housing and/or community-led housing will be sought as part of the overall development of identified growth and regeneration areas.

Where sites provide for 50 or more homes, 2% of serviced plots should be made available for self or custom builders.

The following sites are allocated specifically for self-build and custom housebuilding and/or community-led housebuilding: *[We ask that the Council conducts research and allocates sites for this purpose.]* Affordable housing and housing densities will still apply on these sites and the council will provide an overarching master plan to facilitate this. The affordable and social rental housing will be supported and, if necessary, provided by the Council's own delivery schemes.

Just as COVID-19 is doing now, climate change will change how we live and work and make us more dependent on community ties, communication skills, active transport, good mental health, etc. Young people will be particularly affected by it as they live past 2050. It is therefore important that student housing is designed in ways which support the development of life skills such as communication, mediation and negotiation, training students to become strong resilient people who have the skills, mental health and habits which will enable them to live in low carbon ways and cope with climate change. Cooking, cleaning, interacting, sharing facilities and developing the habit of using public and active transport all facilitate the development of these skills. Student developments also need to be designed in such a way that they can be turned into quality full-time accommodation in the event of a change in housing need and education patterns as climate change takes hold. It is commonplace for student accommodation to have poor insulation and to easily overheat, both of which will become more problematic in the future. All new student accommodation should meet the same energy efficiency and climate adaptation requirements as any other home. Such developments are also a good opportunity to generate renewable electricity, and this chance should be taken in order to both reduce the city's carbon footprint and increase its energy security.

Policy Ho07. Student Development

New student development will not be limited to students in perpetuity. It will be supported where:

- It provides a good standard of accommodation by meeting relevant requirements and standards set out in other development plan policies. It must be designed so that it is fit for use as permanent housing in the future, either meeting national space standards or designed to be adaptable to national space standards, and ensuring good sound insulation;
- It meets the same energy efficiency, climate adaptation and renewable energy generation requirements as other forms of housing;
- It is accessible by sustainable means from the city centre and is linked by segregated cycle routes to at least one of the two main university campuses;
- It does not include parking for students (with the exception of disabled students and disabled visitors), and is car-free;
- Accommodation providers should strongly discourage students from bringing their cars to the city, through code of conduct agreements and travel plans (4), and a travel plan managing beginning/end of term traffic and parking for all forms of vehicles including bicycles and powered two wheelers must be in place;
- A mix of uses is encouraged on the ground floor;
- Developments will be expected to include a proportion of affordable student housing to meet identified need;
- Where the development comprises self-contained (Use Class C3) accommodation it will be expected to provide a contribution towards general purpose affordable housing.
- It includes wheelchair accessible accommodation on the ground floor;
- It includes communal facilities which are appropriate to the scale of development and encourage day-to-day interaction and sharing;
- It lies outside, and does not abut, an Article 4 direction area.

HMOs are another word for shared housing. Sharing housing reduces people's carbon footprints as they share resources with embedded energy such as fridges, washing machines, boilers and routers – as well as the house itself and the electricity, gas and water systems which serve the house. All these things make them valuable when tackling climate change. The people who live in them frequently learn and polish important skills around mediation, communication and how to support each other, all of which are also important when living with climate change. It is also possible for the people in them to car share. Much of the opposition to HMOs is not about people sharing housing but about lack of sound insulation, rubbish management and parking, all of which are about design, management and a rapid turnover of occupants. As we tackle climate change, we will need to share our homes more in order to support each other and reduce our carbon footprints; the current trend towards single people in houses and flats is not sustainable. It would help if the council starts consistently pointing out that due to the demographic of their occupants, HMOs reduce pressure on local services such as school and doctors' surgeries, as well as providing affordable housing. The most important thing they can do in this area though is to ensure that HMOs are well designed and managed and the people in them are given good living conditions, slowing turnover and showing that they can be a positive thing.

Policy Ho08. Houses in Multiple Occupation (HMOs)

Well designed and managed HMOs are valuable to Leicester as they:

- are typically more affordable than other housing;
- have the potential to be more energy efficient and sustainable than other housing;
- increase the housing choices for Leicester residents;
- often reduce the pressure on local schools and medical facilities.

When badly designed or managed however, they can be detrimental both for nearby residents and for the people living in them. Bearing this in mind, the Council will encourage the construction of HMOs in areas where they are not concentrated, at the same time as not permitting their development in areas where there is already a large concentration of them.

Planning permission for HMOs will be supported if they meet the following conditions:

- They are given high-quality energy efficiency measures including wall insulation, double glazing, solar generation or solar hot water and passive cooling systems such as shutters.
- The concentration of HMOs plus student development would not exceed more than 10% of the total housing in an area;
- They increase rather than reduce the choice of homes in the neighbourhood;
- No residential property is directly between two HMOs;
- Developments provide a good standard of accommodation, similar to conditions in fully occupied local homes which are not HMOs, being developed to meet the same quality and sustainability requirements as other housing;
- They are designed and managed in ways which minimise levels of activity and noise on the street in order to prevent disturbance of nearby residents, including high levels of sound insulation;
- Levels of on-street parking are managed through parking controls, car-sharing and travel plans;
- They include garden and amenity space;
- They ensure good quality storage is provided for refuse, recycling and bicycles.

In addition, for larger HMOs, conditions will be imposed on planning permissions so that the number of occupants cannot be increased without a further consent.

Since, as has already been stated, higher density housing is important in allowing Leicester to tackle climate change, it is important that the housing provided is also of a decent standard so that people are happy to live there. Community resilience will be increased by people being attached to their homes and having the improved mental health which goes with quality housing. Two of the main areas of opposition to terraced and other higher density housing are lack of private green space and poor sound insulation, neither of which are inevitable with good design. And of course, liveability includes the need for housing to be adaptable and able to cope with climate change. It is worth remembering that rows of terraced houses can be built with a variety of house sizes.

Policy Ho09. Internal Space Standards and liveability in residential development

All proposals for new dwellings must meet the Nationally Described Space Standard (NDSS) as a minimum. This includes accommodation for short-term occupancy.

The development of new homes intended for permanent or long-term occupation should incorporate high quality and usable private amenity and play space appropriate to the proposal. This can be provided as private balconies or gardens, or as communal gardens and roof terraces accessible to all dwellings not provided with their own private space.

Good quality sound insulation is essential in dwellings, especially where the density is above 50 dph, e.g., flats and terraced houses.

Homes must be easily adaptable to climate change, not leaving residents needing to spend money on serious retrofitting.

All proposals for 10 or more dwellings should demonstrate, through a design statement, how they have been designed to meet Building for Life 12 standards. Proposals which demonstrate a poor standard of design will not be acceptable.

They must also meet the other policy requirements in chapters relating to green infrastructure and Climate change and quality urban design.

The ongoing paving over of gardens in Leicester make the city less resilient in the face of climate change in many ways including:

- Increased flood risk because while unpaved gardens soak up rain, paving, tarmac and concrete are less porous and increase the amount of rainwater that runs off by as much as 50 percent. This additional water usually flows into street drains, which when unable to cope with the thousands of extra litres in a storm discharge into natural water courses.
- Increased build-up of heat as cooling vegetation is lost, increasing the effects of heatwaves on the neighbourhood.
- Concrete, tarmac and paving have very high carbon footprints, both in manufacture and installation.
- Damage to local biodiversity through loss of habitat, reduced amount of rainwater percolating through soil, and water quality, and the loss of ‘green chains’ created by gardens.
- Increased levels of local air pollution with resultant negative health impacts as vegetation is no longer there to filter and absorb pollution or reduce dust.
- Negative impacts on mental and physical health and reduced community cohesion and resilience, which are very important in facing climate change. Causes include reduced gardening activity and the

health benefits which come both from the physical activity and from the conversations and connections which it enables, loss of visible street-based nature and loss of play areas for children.
- Reduced capacity to grow trees which absorb carbon and to grow food locally.

Furthermore, the replacement of front gardens with hard standing inevitably reduces the aesthetic and character of areas in which this practice becomes widespread. (5)

Policy Ho10. Paving in gardens.

Since climate change is causing increased heavy rain and heatwaves, the council will use section 4 orders making it a requirement to apply for planning permission to pave over gardens in order to help reduce the resulting flooding and overheating which the loss of natural ground exacerbate.
Paving over gardens will generally be considered unacceptable and will not normally receive planning permission.
The exception is where occupiers have disabilities requiring parking which is both off-road and very close to their home. In this case, the surface must be porous so as to absorb rainfall and made with sustainable low-carbon materials.
Where planning permission is granted it will be conditional on at least 50% or $6m^2$ (whichever is more) of the area being soft landscaped as natural garden.
Failure to plan for adequate surface water drainage within the curtilage will lead to the application being rejected.

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(1) Bristol has also put in place an Affordable Housing Practice Note which has introduced a fast track route for processing of planning applications and greater flexibility in tenure requirements for affordable housing where affordable housing thresholds are met.

(2) Shelter's New Civic Housebuilding report outlines how a masterplan and small plot allocation system can be used to support smaller developers to build. This is happening successfully at Graven Hill, Bicester.

(3) See Shelter's document on Civic Housebuilding and what is happening at Graven Hill in Bicester.

(4) Bristol's Local Plan states that student developments should not include parking provision, apart from parking for disabled students and visitors. They also state that accommodation providers should strongly discourage students from bringing their cars to the city, through code of conduct agreements and travel plans.

(5) There are councils in the UK beginning to manage the paving of gardens. See for example: http://gaedin.co.uk/wp/wp-content/uploads/2019/05/CEC-Vehicle-parking-in-front-gardens-2009.pdf

Climate change and developing quality places

Developing quality places, and developing in ways which address climate change (both through mitigation and adaptation) should be combined into one section of the local plan. The current draft plan where they are separated makes it easy to side-line climate change, with the result that we are likely to end up both with more extreme climate change and less capacity to adapt to and live with it. Therefore, we propose combining these sections and, in some cases, combining policies.

How new developments are designed is a key component in tackling climate change. It impacts on how much energy they use now, how much they will use in the future, how long the buildings (with all their embedded energy) will last, and whether they will be fit to live in as temperatures rise and weather becomes more extreme. It affects how much people choose to drive, walk and cycle, with the impacts those choices have on carbon footprints, mental and physical health. It supports, or undermines, community resilience. It is a fabulous opportunity to generate renewable energy and reduce people's bills, again giving them more resilience, and the city more energy security as storms and power cuts become more common. And it is far easier, cheaper and more effective to build these needs in from the start than to add still more buildings to the city which will need deep retrofitting within a few years when there are already so many buildings which need such work in order to be liveable as climate change takes hold.

There needs to be a requirement for renewable on-site energy generation, not low carbon or nearby generation. The term 'low carbon' generation is often used to refer to biofuels, many of which are not sustainable, or worse still, fossil fuels. New development will be next to areas of old housing built without the measures in this policy, and such old housing will inevitably need more energy, making it essential for new developments to be self-sufficient or renewable energy exporting.

Policy CCDQP01. Sustainable design for new development

Achieving zero carbon development in relation to heating, cooling, lighting and power in new and existing buildings is key to meeting the city's commitments on carbon reduction. As such, all development will be required to be designed to mitigate climate change, working towards zero carbon. At the inception of development proposals, developers should build achieving zero carbon into their consideration of scheme viability.

New developments of more than 5 dwellings will be required to demonstrate through Sustainability Statements how they will contribute to mitigating climate change, adapt to its impacts and contribute to

meeting targets to reduce carbon dioxide emissions by means of the measures below.

Development design should use the following energy hierarchy (starting at the top) in order to minimise energy demand and carbon emissions:

1. Use passive design measures to minimise energy use and maximise the opportunities for on-site renewable energy supply. Examples of this include: site layout, building orientation, form and massing, daylighting levels, fixed, mobile and seasonal shading, passive heating, natural ventilation, diurnal cooling, shading, solar control glazing, and landscaping and green and blue infrastructure.
2. Further minimise energy demand through a high thermal performance of the building fabric and highly energy efficient systems including for heating, hot water, ventilation and lighting.
3. Meet the energy required for heating, hot water, electricity and, where necessary, cooling from on-site renewable generation.
4. Generate as much additional renewable energy as possible and ensure that where on-site generation can provide renewable or low-carbon energy that is surplus to the immediate needs of the development, provision is made for the surplus to be stored for later use or supplied for use elsewhere.

If, in exceptional circumstances, the development is unable to generate all the necessary energy for its needs, it must be shown how the design allows for the additional energy to be acquired from on-site low-carbon generation, near-site renewables and off-site low-carbon energy supply (in that order).

The development design will be required to encourage walking, cycling and the use of public transport and, equally importantly, to actively discourage journeys by private car (see Transport chapter for details).

For development not on council land we require as an absolute minimum a 19% carbon emissions reduction over 2013 building regs (6), and we encourage the following standards:

- For major non-residential development, a BREEAM “Excellent” rating;
- For residential or mixed-use development consisting of more than 200 residential units, a BREEAM Communities “Excellent” rating;
- PassivHaus certification;
- BREEAM Domestic Refurbishment “Excellent” standard for proposals for change of use to residential.

New development should demonstrate through an Energy Strategy set out as part of its Sustainability Statement how these requirements will be met. Where existing buildings are being converted into new uses and it is not feasible for the full CO2 emission reduction to be met, the Energy Strategy should show that energy demand has been reduced to the lowest practical level using energy efficiency measures, that heating/cooling systems have been selected sustainably and that on-site renewable energy will be installed where feasible, aiming for a 20% reduction in regulated CO2 emissions on site and exceeding this whenever possible. New development will be expected to demonstrate through its Energy Strategy that the most sustainable heating and cooling systems have been selected. This should include consideration of the proposed system as a whole, including the impact of its component materials on greenhouse gas emissions.

After applying on-site measures, development is expected to achieve a 100% reduction in its remaining regulated and unregulated emissions through the use of carbon offsetting as set out below.

Carbon offsetting. Once on-site CO2 reduction requirements for energy efficiency and renewable energy measures have been met, the remaining emission reductions will be met by carbon offsetting measures such as providing the residual emission reduction through a financial contribution to renewable energy, low-carbon energy and energy efficiency schemes elsewhere in the Leicester area, or agreeing acceptable directly linked or near-site renewable energy provision. The financial contribution required will be equivalent to the cost of mitigating the residual CO2 emissions off-site, at a rate of £95 per tonne of CO2 that would be emitted over a period of 30 years.

PassivHaus buildings. Where buildings are proposed to be certified PassivHaus standard, the % CO2 reduction targets above relating to energy efficiency measures and on-site renewables will not need to be met. In these cases, a full Energy Strategy will not be required and it will be sufficient to submit the technical information required to demonstrate that the PassivHaus standard can be achieved and for the Sustainability Statement to demonstrate that the residual heat/cooling demand for the development has been met sustainably as set out above.

Development that considers and designs for a changing climate now is less likely to require costly and resource intensive retrofit measures in the future, such as mechanical ventilation/cooling with a resulting increase in its energy requirements and CO2 emissions. It also ensures that people are able to put their resources into coping with climate change, and helps those with fewer resources to suffer less as the weather becomes more extreme.

Policy CCDQP02. Resilience to climate change

All development will be expected to include site and building-level measures to be resilient to future climate change impacts and provide for the comfort, health, and wellbeing of current and future occupiers and the surrounding environment over the lifetime of the development. These measures should be integral to the layout and design of new development and should take the vulnerability of the building occupants into account.

New development will need to:

- minimise the overheating of buildings, ensuring that cooling needs are met sustainably;
- provide external spaces that are comfortable in hot weather;
- conserve water supplies;
- minimise the risk and impact of flooding;
- avoid responses to climate impacts which lead to increases in energy use and carbon dioxide emissions.

Measures should include:

- Site and building design to reduce exposure to elements including high winds, flood water and summer sun.

- Designing new buildings to avoid overheating and cooling, e.g., through solar shading, thermal mass, heating and ventilation of the building and appropriately coloured materials in areas exposed to direct sunlight. This should include building-level adaptations to provide for the comfort of occupiers over the lifetime of the development, taking account of anticipated changes in the local climate. These measures should be integrated into the design of new development.
- Use of trees and other planting, where appropriate, as part of a landscape scheme to provide shading of amenity areas, buildings and streets and to help to connect habitat, designed with native plants that are carefully selected, managed and adaptable to meet the predicted changing climatic conditions.
- Design of new buildings to minimise water demand and promote water efficiency. New homes will be expected to achieve a water efficiency standard of no more than 110 litres per person.
- Use of sustainable drainage systems (SuDS).
- The use of green/blue infrastructure. Where appropriate to its context, this should include the use of living roofs with a sufficient substrate depth to maximise cooling benefits.

Adaptation strategy. Proposals for development should demonstrate through an adaptation strategy how these issues will be addressed. This should include technical modelling and assessment of the risk of overheating in current and future climate change scenarios. In considering the likely impact of climate change over the lifetime of the development (particularly in relation to overheating), reference should be made to the most recent climate change projections.

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It's important that design principles are seen as automatically factoring in and minimising climate change. They cannot be seen as an add-on or they won't happen, leaving us with non-viable buildings and developments in the years to come.

We've reorganised the order of these sections and factored in climate change and sustainability which were not mentioned. Our suggested text changes are indicated.

Policy CCDQP03. Design principles

In the context of climate change, development will be permitted subject to consideration of the following design principles:

1. Movement and Connections a) Provide, maintain or improve the network of **routes for walking and cycling** within and through the development site ensuring connections to the wider area, **whilst limiting through routes for cars.** This must take into account existing communities and defined future development proposals whilst recognising the need for privacy and security in new development; b) Provide a clear and connected layout of different types of streets and spaces, a street hierarchy, to add to a sense of place and help people find their way around. Create streets which are designed as social spaces that encourage low vehicle speeds where the pedestrians and cyclists come first rather than simply as routes for cars and vehicles to pass through; c) Prioritise walking and cycling by providing routes that are safe, well connected, convenient and accessible for all including those with limited mobility; **d**) **move parking to the edge of the development, providing only car pool and blue badge parking in bays on residential streets. Ensure all car parking is safe, secure and well landscaped and does not dominate**

the development or have a detrimental impact upon the appearance of the area; e) provide conveniently sited, safe, secure cycle parking for every home; f) Maximise opportunities for improving and extending the existing network of public transport routes and pedestrian and cycling routes in the city;

2. Public realm a) Create high quality public spaces that are appropriately located and connected into a network of routes, feel safe and inclusive, are accessible to all, **include trees, shading, blue infrastructure, natural green play areas** and encourage social interaction; b) Provide attractive public spaces making best use of **sustainable** ~~existing and new~~ landscaping materials, lighting, public art, and street furniture offering versatility to accommodate people with different needs and a range of activities to ensure the spaces are well-liked and well-used; and c) Contribute to a vibrant and safe public realm by providing active frontages including well-positioned and designed main entrances to encourage physical activity between buildings and spaces and natural surveillance. Developments that incorporate living spaces on the ground floor will need to be designed to balance the need for privacy and surveillance.

3. Resources and Lifespan a) Consider in the design at the outset, and provide for future management and maintenance for all areas for the lifetime of the development, **especially in the light of climate change**; b) Create individual homes and gardens that can adapt to the changing needs of their users and the way they live over time, **as well as the changing climate**; and c) Create buildings and spaces that are adaptable and flexible which can respond to changing social, technological and economic conditions **and climate change**. In particular, demonstrate the ability to adapt home sizes from smaller to large homes in higher density developments containing a high proportion of smaller homes or cluster flats; **d) maximise the renewable energy generation capacity of the development.**

4. Built Form a) Contribute positively to its context in terms of scale, height, amount, massing, urban form, layout, siting, appearance, façade design and materials. Development which fails to respect and improve an area will be resisted; b) Create or strengthen a sense of place and make it easy for everyone to find their way around by considering the arrangement and location of development blocks, streets, groupings of buildings, views into and out of development, landmarks, different building types and uses, open spaces, landscaping and natural features; c) Consider development comprehensively and in a co-ordinated way to enable the efficient and most effective use of land to allow a sustainable amount and mix of uses to support local facilities and transport networks – across multiple sites where possible; **d) use shading along with blue and green infrastructure to reduce overheating, increase amenity and biodiversity.**

5. Mix of uses a) Provide an appropriate mix of uses and facilities within a development to meet the needs of the occupants and the needs of the neighbourhood and community to support the creation of sustainable and walkable communities; and b) Provide a mix of homes tenures, types and sizes.

6. Homes and buildings a) Provide a clear distinction between public, communal / shared and private spaces with well-designed boundaries and thresholds that are appropriate to the context, attractive, use **high-quality low-carbon and sustainable** materials which can be easily maintained **and repaired**; b) Use materials that **have low embedded carbon and are sustainable**, of high quality, made to last **and repairable**; c) Provide buildings with well-designed, well-positioned and well-integrated private or shared external spaces that are fit for purpose and can be easily and conveniently accessed to encourage use, are appropriate to their required use and adjacent internal uses, safe and secure, and consider how environmental factors may affect usability; d) For higher density developments, consider the relationship between internal spaces, circulation routes and entrances, the need for daylight and ventilation (including integrated mechanical provision), the need for privacy, and the provision of external amenity space to provide high quality buildings; e) Consider the day to day use and functioning of buildings and places

providing well considered design solutions for waste storage and management, services & utilities and cycle storage that are integrated to minimise visual impact and avoid clutter.

~~8. Building for Life a) All proposals for ten or more dwellings, should demonstrate, through a design statement, how they have been designed to meet Building for Life 12 standards. Proposals which demonstrate a poor standard of design will not be acceptable.~~ *[We suggest moving this to our proposed Policy H10. Internal Space Standards and liveability in residential development.]*

7. Context and Character a) Respond positively, informed by analysis, to the site and its local and wider context including its history and heritage, setting of heritage assets, townscape and streetscape, key views, natural and landscape features, site orientation and features to conserve and enhance; b) Respond positively, informed by analysis, to an area's existing local character, distinctiveness and identity; and c) Create or contribute to a new character and identity where an existing place has limited positive qualities.

The emissions associated with a building's entire lifecycle from cradle to grave, excluding the operational energy consumption, are referred to as embedded or embodied energy and can form up to 70% of the lifecycle carbon emissions of a development. Failing to adopt an analysis of and design approach towards lifecycle carbon could result in design solutions that incur greater embodied emissions during the construction of a building, in order to reduce emissions from energy-related activity during the operational phase, thereby moving the problem rather than directly addressing it. It is worth remembering that carbon emissions released into the atmosphere now will speed up the onset and early intensity of climate change.

[This has been moved from CCFR01.]

Policy CCDQP04. Sustainable construction for new development

Resource-efficient and low-impact construction has a key role to play in mitigating the impact of development on the environment, society, economy and climate. These are all impacted by development through the products and energy used within the development, the construction process, its operation once complete and at the end of its life when it is refurbished or demolished. It is therefore important that all of these stages are considered in new development (a 'circular economy' approach).

Resource and energy-efficient and low-impact construction will be integral to new development in Leicester. All new development will be required to address the following key issues in their Sustainability Statement:

- The type, life-cycle and source of materials to be used.
- Waste and recycling during construction and in operation.
- Accounting for the energy use, carbon emissions and other environmental impacts arising from construction, materials and end of life demolition and disposal.
- Maximising the recycling and re-use of demolition materials.
- Ensuring that the development site ground is not filled with waste, hard core and other builders' wastes, and the top soil is not destroyed, thus ensuring that all natural ground (such as gardens, yards, play areas and pocket parks) provided as part of the development are fit to grow food in in the future.

Proposals for major developments are expected to be accompanied by a whole-life assessment of the materials used and a site waste management plan setting out how site waste will be managed during the construction phase.

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While the way we live has the potential to reduce our carbon footprint immensely, the reality is that many people have neither the time, resources nor willingness to make many changes, especially in a context where the majority of people do very little in this area. For this reason, it is important to generate as much renewable energy as possible so that we can power our hospitals, schools, homes, businesses, transport and industry in ways which don't add to climate change making life harder for our children and their children.

Policy CCDQP05. Delivering renewable and low carbon energy projects

Leicester needs to become self-sustaining in renewable energy generation, both in order to reduce the city's carbon footprint and for energy security. The city has a renewable energy company, Fosse Energy, but it needs to support and ensure that the energy it supplies is locally generated as well as renewable – not import it from other places across the country.

For these reasons, in addition to requiring renewable energy generation on new developments, proposals for the utilisation, distribution and generation of new renewable energy and low-carbon energy projects will be encouraged and supported, including both large-scale freestanding installations and small-scale solar installation on homes and buildings which already exist. For larger scale developments, support will include energy supply contracts, and the council will actively reach out to renewable energy companies to encourage local renewable energy generation development.

The following areas have been identified as suitable for large scale onshore wind and solar electricity generation: *[We ask that the Council does a study to find appropriate sites.]* This plan allocates them specifically for wind and solar farms.

In assessing such proposals, and also smaller proposals on unallocated land, the environmental and economic benefits of the proposed development will be afforded significant weight alongside: a) Impacts on the historic environment, local character, appearance and landscape; b) Impacts on ecology and biodiversity including protected species, and designated and non-designated wildlife sites; and c) Impacts on residential amenity including air quality, noise, traffic, recreation and access.

Please note that appearance alone will not be sufficient reason to refuse a renewable energy generation project, large or small, commercial or domestic, and we will not support biofuel energy projects unless a long-term, reliable, sustainable and local source of fuels is identified and managed as part of the application, e.g., biogas from the city's sewage.

Tall buildings experience more extreme temperatures and higher winds than lower developments. They can also struggle with cooling, are often poorly insulated and offer minimal or no private outside space. They are associated with poor sound insulation and lack of control for many people and this may be why they are so unpopular as places to live in this country. Across the rest of Europe, apartment living is seen as attractive by many people and this is a shift we would benefit from in Leicester and in the UK, as well-designed flats reduce both the embodied energy and the carbon footprint of the city's housing stock. Most of the things which make it unattractive can be improved by building design which is energy efficient, generates renewable energy, adapts to climate change and which people will want to live in with sound insulation, balconies and shared spaces and resources.

Policy CCDQP06. Tall development

Planning permission will be granted for tall development where it meets the following design and locational criteria:

- **a) Designed to cope with increased wind and heat in the context of climate change, with high and adaptable levels of sustainable insulation, heating and cooling mechanisms;**
- **b) Designed to maximise the generation of solar energy, both for use in the building and for export to the nearby area;**
- **c)** Responds positively to context, including scale, mass, built form, urban grain, streetscape, public open spaces and landscape, rivers and waterways;
- **d)** Has an appropriate impact on local townscape views, local heritage views and views and vistas of city-wide significance;
- **e)** Will have a positive relationship with public spaces and parks;
- **f)** Any proposal is accompanied by a comprehensive assessment and analysis of considerations as identified in this policy;
- **g)** Has an appropriate or no impact on the local environment including microclimate (wind **and heat**), air quality, night time appearance, overshadowing and the lack of sunlight within the development itself, and to neighbouring buildings, streets and public realm;
- **h)** Demonstrates adequate levels of privacy **and high levels of sound insulation** between adjacent properties and within the development;
- **i)** Will have an appropriate relationship with other tall development;
- **j)** Will not prejudice the future development potential of adjacent sites;
- **k)** Exhibits an exceptional standard of architectural quality in scale, form, massing, proportion, silhouette and facing materials;
- **l)** Exhibits a design that is of a 'human scale' appropriate to the context, townscape and heritage of Leicester;
- **m)** Provides uses and a design at street level that interacts with and contributes positively to its surroundings and enhances the public realm**;**
- **n) Includes areas of shared indoor use, for example, for computer work, children's play areas and laundry facilities;**
- **o) In the case of tall buildings for housing, balconies should be provided when possible in order to allow residents some private outside space.**

As climate change takes hold, our trees and natural spaces will become ever more important in their cooling, flood reduction and support for mental health capacities. They will also come under increasing pressure to survive. Climate change will also make the world's food supplies less reliable, increasing the importance of local food resilience. It is possible to grow great quantities of food in a city at the same time as enhancing our water and trees, and we need to design our new developments in ways which support this. Covering the ground with hardcore, tarmac and concrete not only exacerbates climate change now – it also makes it much harder to grow food there in the future. Food trees planted along streets and community growing areas facilitate local food growing. Food trees can also be planted in areas which could later be used for other forms of growing and they can be planted in gardens and yards as part of the development of a site.

Policy CCDQP07. Landscape design

Development will be expected to:

a) Retain landscape features, e.g., topography, hydrology and existing vegetation, woodlands, trees and hedgerows. The loss of any existing landscape features should **only occur in exceptional circumstances** and be appropriately mitigated for;
b) Respect, and give consideration to the protection and enhancement of irreplaceable habitats such as ancient woodlands and veteran trees;
c) Consider aspect and shading, and avoid creating a later pressure for removal of trees and other features;
d) Provide a landscaping scheme which forms part of an integrated design approach, including overall layout, access routes, lighting and street furniture;
e) Provide a landscaping scheme that is designed to a high quality, including to high inclusive design standards, and provide a variety of functions, such as SuDS, play space, shading, and **the provision of food trees and growing areas;**
f) Ensure that the maintenance and management of existing and new landscaping is provided for a minimum of the first five years, including replacing any dead or vandalised stock and demonstrate that satisfactory long-term maintenance and management is secured;
g) Ensure planting schemes take into account how the landscape will mature, seasonal changes;
h) Enhance biodiversity, including swift bricks in new buildings, hedgehog highways and bee lines/wildlife corridors through gardens and wildflower areas;
i) Retain and keep clean the original soil of development sites, especially in gardens and green spaces in order to minimise pollution and support future food growing;
j) **Maximise areas of land fit to grow in and minimise areas of hard core, tarmac and concrete.**

Due both to drought drying out the ground and more extreme patterns of rainfall, flooding is becoming an increasing issue in Leicester, especially as our Victorian sewer system becomes overwhelmed. This makes the management of our flood zone 3b especially important. By planting water-absorbing and tolerant trees in this zone we can minimise flooding, sequester carbon and increase our beleaguered biodiversity. It also minimises the embodied energy which would otherwise be used repairing and renovating after floods impact on buildings in these areas.

Policy CCDQP08. Managing flood risk and Sustainable Drainage Systems (SuDS)

In assessing development, the following principles will be applied:

- **a)** Development shall be directed away from areas with the highest risk of flooding, in accordance with the sequential and exception tests. **No development will be allowed in flood zone 3b, and where it has been previously developed it should be returned to natural habitat to absorb floods where possible.**
- **b)** The development must be safe for its lifetime and not increase flood risk elsewhere.
- c) For all development, SuDS are **required** to be used to reduce surface water runoff and deliver other benefits, such as improving water quality, providing visual amenity and contribute towards achieving biodiversity net gain, and have low maintenance requirements. It shall be demonstrated that the SuDS **will** be managed and maintained throughout the lifetime of the development;
- **d)** Opportunities for the enhancement of watercourses and **their potential biodiversity** should be realised wherever possible, such as in parks and public open spaces. **Straightening of natural water courses will not be allowed.**
- e) Adequate provision for access to watercourses must be provided to allow for maintenance and emergency works to be carried out by the relevant authority;
- f) Opportunities to access the watercourses, and their settings, for recreational purposes should be taken.

Backland, tandem and infill development results in a higher density of housing, and can discourage driving within the city, while minimising the need to build on green spaces. It can therefore reduce the city's carbon footprint. However, it can also exacerbate the heat island effect which is going to increase with climate change, and damage the biodiversity and natural environment of an area. This means such development needs to include the planting of new trees and protection of trees which are already there, to maximise natural land (minimising paving), and to consider the heat island effect on the surrounding area.

Policy CCDQP09. Backland, tandem and infill development

Backland development for new dwellings will be acceptable subject to the following:

a) Development potential of adjoining land is not unreasonably prejudiced;
b) Satisfactory access in terms of highway safety, highway function, perceived and actual safety, residential amenity **(this does not have to be car access – a footpath is sufficient);**
c) Development should minimise the number/frequency of vehicle accesses off an existing highway;
~~**d) Tandem development of single dwellings will not normally be acceptable;**~~
e) The number of dwellings, size, design and layout shall allow for space around dwellings, existing and proposed landscaping, ~~**car parking arrangements**~~, and take account of the relationship to, and character of, neighbouring property and the area, **and higher density housing will be favoured over detached and semi-detached homes;**

f) Privacy, light, outlook and amenity shall be maintained for existing and new dwellings by careful regard to separation distances, window positions, orientation of dwellings, levels, screening and landscaping;
~~**g) Development shall be designed and assessed to allow for reasonable extensions to dwellings including through permitted development. Development that does not reasonably allow for permitted development will not normally be accepted;**~~
h) All backland development must be adequately drained following SuDS principles with no net increase on green field run off rates; and
i) Development will respect the historic environment. In conservation areas, backland development will seek to ensure that the overall character and urban grain of the area is retained, and that any new development is sympathetic, in terms of size, scale and design, to its specific location.
j) the development will minimise paving, maximise soft landscaping/growing areas, retain mature trees, add new trees and respect the biodiversity of the area and the natural environment;
k) The impact on the local environment of the development adding to the heat island effect will be considered and given serious weighting when making planning decisions.

The energy use of digital adverts, media screens and lighting add to the city's carbon footprint and add to the stress that climate change puts on local wildlife and biodiversity. They need to be used carefully and minimise energy use and light pollution.

Policy CCDQP10. Signs and banners advertisement design and location

Digital advertisements, media screens and lighting of buildings (all electrically emitted light) should be switched off at midnight to allow some periods of true darkness for wildlife and should be designed to minimise energy use.

Consent will be given for signs and advertisements unless they:

- **a) Fail to minimise energy use;**
- **b) Are not switched off at midnight;**
- c) Do not relate well to the building on which they are fixed or to the surrounding area;
- d) Have a harmful impact on visual amenity;
- e) Cause unacceptable light pollution or loss of amenity through excessive glare, light spillage or sky glow;
- f) Would have an unacceptable impact on highway safety.

Projecting and Fascia Signs

A maximum of one projecting sign per frontage will normally be permitted. Fascia and projecting signs above the level of first floor windowsills will not normally be permitted. The council will also control the display of banners, flags and other types of advertisements which produce an unacceptable cluttered effect on the street scene.

Media Screens

Media screens will be acceptable unless they:

a) Cause an unacceptable impact on visual amenity;
b) Would have an unacceptable impact on highway safety;
c) Would be contrary to criteria in relation to advertisement design;
d) Are not switched off at midnight;
e) Fail to minimise energy use.

Media screens displayed in buildings where they are visible from the public realm should be designed so that they are well proportioned and well-integrated within the existing shopfront and streetscape.

Free standing media screens in the public realm should not contribute to a cluttered environment, taking into account existing street furniture and advertisements. **They will also be discouraged due to high energy use and will be required to be turned off at midnight.**

Mesh wrap advertisements

Mesh wraps that cover buildings, or large parts of buildings, will be acceptable unless they would:

a) Cause an unacceptable impact on visual amenity;
b) Would have an unacceptable impact on highway safety.

Policy CCDQP11. Advertisement hoardings

Advertisement hoardings, including digital hoardings, will only be permitted to screen a derelict building or site, subject to the design being appropriate for the timescale of the redevelopment and subject to requirements to remove at a specified date. Advertisement hoarding signs in other circumstances, or other advertisements unrelated to the site, will not normally be permitted.

Digital hoardings will not be permitted due to embedded energy, energy use and the impact of light pollution on wildlife.

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(6) See Climate Action Leicester and Leicestershire's research on this: http://www.climateactionleicesterandleicestershire.org.uk/wp-content/uploads/2020/02/Evidence-that-LCC-could-adopt-19-plus-policy.pdf

Transport

The current level of traffic in Leicester has a negative effect on the quality of our air (7), our physical and mental health (8 & 9) and the cohesion of our communities. To reduce our contribution to climate change and to make our city more liveable, we need to take a different approach.

In spite of a third of the city's households not owning cars, transport – especially cars and freight vehicles – is a major contributor to Leicester's carbon footprint. It is not enough to simply encourage the use of active and public transport. To get a substantial modal shift to these sustainable forms of transport we need specific policy designed to actively discourage car use, and also policy which manages freight away from fossil-fuelled vehicles to more efficiently used low and zero carbon options in and around the city.

In short, we need to plan the city around people, not cars and put in place a climate friendly freight policy. In a sustainable city, housing should be dense enough and services sufficiently nearby that people can access most of what they need in a short distance from their homes, reducing the need to travel and ensuring that the majority of trips can be made by walking and cycling (10). With fewer cars, neighbourhoods become cleaner, greener, more pleasant places to live (11). They also become more accessible to people on lower incomes who cannot afford cars, and people are more likely to talk to others in their community increasing local resilience – essential in a time of climate change (12). Good public transport helps people to travel across the city and the use of private cars is actively discouraged (13). The increase in active travel and the decrease in air pollution improves everybody's mental and physical health.

The people who suffer first and most from climate change are those with the least resources who have contributed the least to the problem. At the very least we should design a transport system which prioritises these people to be able to get to the jobs and services they need, and enables them to manage as life becomes more difficult through climate change.

The policies below explain how we can redesign our transport network in this way.

Policy T01. Active Transport Network

Enabling people to choose active transport (walking and cycling) will reduce air pollution and carbon emissions and increase people's levels of physical activity. Walking and cycling more has the potential to significantly improve health. For those on a low income without access to a car, better walking and cycling routes will also improve their opportunities, health and capacity to cope with climate change, and reduce inequality across the city.

25% of the car journeys made in Leicester are under 2km long. We aim to move 75% of these journeys to foot or bicycle by the end of the plan period, both through the policies below encouraging active transport, and by actively discouraging car use.

The Council recognises the potential for significant modal shift to walking for short journeys and will aim by the end of the plan period to increase substantially the frequency of journeys under one mile long made on foot.

This will be achieved by:

- providing direct, well-maintained and well-lit walking routes, including to and from schools;
- providing quality footways;
- slowing down traffic through the use of 20mph zones across the city, including on the radial roads, prior to the provision of fully segregated cycle lanes and cycle priority at junctions;
- improving walking related infrastructure;
- looking for opportunities to provide pocket parks and green spaces along walking routes to make them cooler and more attractive;
- considering groups with disabilities or ageing members of the population when designing infrastructures.

The Local Plan recognises the potential for a significant modal shift to cycling for short and medium journeys and aims, as a minimum, to quadruple the frequency of journeys made by bike by the end of the plan period. This will be achieved by providing a network of cycle-friendly streets, multi-use paths and cycle routes in combination with policies discouraging car use such as school streets, variably priced parking permits and congestion charging. Above all it will require the reallocation of road space to segregated cycle routes, to encourage less confident cyclists to choose active transport. It will also require the redesigning of junctions to give cyclists priority. The Street Design Guide and new government guidance (14) provide the design standards for creating new cycle routes.

For both the walking and cycling networks, the Council will work with county partners to ensure they continue to function as a network beyond the city boundary, to facilitate walking and cycling trips into and out of the city.

Policy T02. Public Transport Network

To encourage the use of buses by improving affordability, journey times and reliability:

- Bus priority measures will be rolled out on all major roads by the end of the plan period.
- Bus hubs will be well integrated with walking and cycling networks and appropriate cycle parking provision will be made.
- The city will apply for a bus franchise within the first 3 years of this Local Plan and, working with the County Council, use it to ensure that the bus services in and around the city become affordable, reliable and act as an effective network at all times, not just week daytimes, increasing orbital and link routes and ensuring that peripheral housing and industrial developments have functional public transport at the times of day it is needed (taking shift hours into account).

- New development will be required to:
    a) be designed and located so that occupiers are within close walking distance (400m) to existing or proposed frequent bus routes with bus priority measures;
    b) provide travel plans to demonstrate how they will minimise the number and length of car journeys needed for employment, shopping, leisure, education and other activities as well as facilitating a shift to sustainable transport;
    c) new development close to Park and Ride services will be required to support and integrate with these sites and routes and not constrain any future expansion;
    d) major developments must be focussed around public transport hubs or linked to major new sustainable transport infrastructure.
- Proposals for new Park and Ride sites and extensions to existing Park and Rides will be encouraged and supported:
    a) where they include solar generation of electricity;
    b) are consistent with other relevant policies in the Local Plan.

City Centre parking will be managed as far as possible to ensure that it costs more than using the park and ride. This will include negotiating with private car park managers/owners.

Policy T03. Highways Infrastructure

By the end of the plan period, it will be expected that implementation of the Council's transport plans and policies will deliver against the Council's climate change targets and commitments and ensure air quality in Leicester meets World Health Organisation guidelines. The plan will therefore consider and provide for the needs of different modes of transport in accordance with the following hierarchy of transport users:

1. pedestrians
2. the mobility-impaired
3. cyclists (including electric cycles)
4. public transport users
5. commercial users
6. powered two-wheelers
7. shoppers and visitors by car
8. car commuters

The number of cars on Leicester's streets restricts the space available to pedestrians and cyclists and makes the roads less safe for them. It also causes congestion and affects the reliability of public transport. It is incompatible with reducing Leicester's contribution to climate change, improving air quality and promoting equality for the less privileged who can't afford cars. During the term of this plan, the Council will work to discourage the use of private cars by those who have the option of choosing active transport or public transport. We will seek to reduce the number of private cars on Leicester's roads by 50%. This will be achieved by:

- the implementation of a city wide differentially charged Clean Air Zone for all vehicles, including private cars using number plate recognition to allow low income car owners to apply for a lower charge;
- the reallocation of road space to bicycles and buses;
- the closure of some side streets to cars to reduce rat-running and increase the network for cycling and walking;
- parking restrictions (see Policy T06 below);
- widespread use of school streets

The access needs of elderly and disabled people, who are likely to be more dependent on cars, will be considered and provided for.

Road-building will be regarded as the option of last resort as a solution to transport problems. Support will not be given to any road-building proposal unless reliable evidence has been provided that it will not induce additional traffic and it can be demonstrated that all other possible options, including non-road-building options and making more efficient use of existing infrastructure, have been fully considered and it has been concluded that these do not provide an adequate solution. The Local Plan will not commit to supporting any specific infrastructure project where this support might prejudge the outcome of a full Environmental Impact Assessment (EIA).

Policy T04. Accessibility and Development

Development proposals will be located where sustainable travel patterns can be achieved, with more intensive, higher density mixed use development at accessible locations and along or close to main public transport routes. Proposals will minimise the need to travel by private car and maximise opportunities for walking, cycling and public transport use. All major developments will be required to demonstrate that there is no detrimental effect on air quality through an air quality impact assessment.

Developments will be designed and located to ensure the provision of safe, walkable streets and reduce as far as possible the negative impacts of vehicles such as excessive volumes, fumes and noise. Proposals should create places and streets shaped by the needs of pedestrians, cyclists and public transport users and where car use is actively discouraged to produce a liveable environment. Travel plans, including behaviour management provisions, will be required for all new residential development.

All new and improved cycle routes will be designed to avoid conflict with pedestrians, motorists and other road users. They will also be designed to encourage less confident cyclists to choose this mode of transport. The Council's Street Design Guide will provide detailed design requirements.

Development of the railway station site and the surrounding area will be well connected by walking, cycling and bus infrastructure. Any development will not prejudice the implementation of future rail infrastructure at Knighton Junction, Syston Junction, Wigston Junction and Leicester railway station. Space will be retained to ensure that in the future we can provide more comprehensive freight and transport interchanges at the existing station site, or potential freight interchange locations along the railway line.

The needs of the elderly and people with disabilities will be considered within all development proposals. Developments will be expected to make appropriate provision for the transport needs of disabled people.

A separate freight supplementary planning document and strategy are needed to recognise the impact that freight has on carbon emissions, traffic levels, air quality, noise and active transport. The freight strategy should:

- identify what incentives are needed to move 'last-mile' deliveries of light goods to residences to e-cargo bike, as is already happening with some retailers;
- establish how numerous 'last-mile' deliveries to an area could be aggregated into one delivery, e.g., with the provision of local delivery lockers accessible by e-cargo bike delivery agents.
- investigate using public transport links to double up as a light freight delivery option, which not only reduces LGV miles but would also make public transport links more financially viable;
- consider HGV users running a shuttle service to see how they could be moved to rail, e.g., the Post Office hourly service running Leicester-Peterborough, 24hr.

Policy T05. Freight

Freight needs to be delivered in the most sustainable way possible, i.e., with zero-emission transport and with minimal pollution and noise. Freight transport also needs to be more integrated with other road users so that the presence of HGVs and the volume of light goods freight transport on our streets does not form a deterrent to cycling and walking.

Within the term of this plan, the Council will establish a freight hub that will allow 'last-mile' delivery by zero-emission transport in the city. The following two options will be considered as possible sites:

1) The Council will work with the Post office to see if their building on Campbell Street, next to the station, could be re-purposed as a last-mile freight hub, including post.
2) As part of the current Network Rail review of their infrastructure from Wigston junction to Syston, including the station, we will consider providing freight terminus facilities utilising old sidings either side of Swain St bridge.

Care will be taken to avoid closing off either of these options by building in the wrong place. The freight hub will be provided with appropriate green recharging / refuelling facilities for zero-emission freight vehicles.

The following site on the edge of the city is allocated for freight consolidation: Kirby Fields/Meynell's Gorse Park and Ride, which given the intersection of the railway, the motorway and a main route into the city, forms the best option for a freight hub along the lines of the Northampton Gateway (15). From here freight can be decanted onto smaller goods vehicles and ultimately e-cargo bikes (16). Other sites should be considered if the above is impractical and more than one, as driven by demand, should not be ruled out.

Non-residential development will be required to provide parking spaces, loading and unloading facilities and manoeuvring space within the site for all commercial vehicles. Freight drivers parking at home, including light goods freight vehicles, will require planning permission, which will not be granted lightly.

The council will start to work with refrigerated transport operators to establish how parked refrigerated freight transport can be electrically powered to save running diesel compressors constantly. If this proves impossible, technically, we will push central government to make this a future refrigerated transport requirement. If this is possible, we will provide suitable dedicated infrastructure to enable it, e.g., a parking area with the appropriate electrical facilities.

Policy T06. Cycle and Car Parking

Acknowledging that the predict and provide approach to car parking encourages the use of private cars, the Council will deliberately manage the level of car parking provision to discourage car use. This will be implemented gradually but steadily, alongside improvements to the active transport and public transport networks, so that people are encouraged to shift to more sustainable transport as those become more realistic choices for most people.

Permission will not be granted for any new parking not associated with new development. Further, as the active transport and public transport networks are improved, the re-development of existing car parks will be encouraged to reduce the amount of car parking available. However, a minimum level of spaces will be retained exclusively for the use of blue badge holders.

For new residential development, the amount, design and management of proposed car parking provision should be based on consideration of the following criteria, with a maximum of one car parking space per dwelling:

- the site's accessibility by walking, cycling and public transport to employment opportunities, services and other facilities;
- local car ownership levels;
- the type and mix of housing proposed;
- the type of parking proposed and associated management arrangements, having regard to the characteristics of the surrounding area;
- the availability of and potential for car clubs in the locality; and
- the availability of on-street parking in the vicinity of the site taking into account existing parking management schemes in the area.

At least one space per 30 dwellings must be reserved for car clubs and provided with fast electric charging capability, to encourage the take-up of electric vehicles.

The provision of cycle parking in residential development is a priority and provision will be expected to be in accordance with best practice at a level above the current demand to meet the anticipated increase.

Office and leisure developments of 200m² or more will be expected to meet or exceed the minimum standards for secure cycle parking of:
For staff - one space per 50m² of gross floor area;
For visitors - one space per 1,000m².
Cycle parking provision and associated facilities should be designed to a high quality which meets the requirements of staff and visitors.
Adequate changing, shower, storage and drying facilities should be provided for cyclists including:
1 shower per 1,000m² gross floor area;
1 locker per cycle space.

For new car parking associated with new office and leisure developments to be considered, it must first be demonstrated that efforts have been made to restrain demand, including travel plans to encourage modal shift and improvement of links to the local active and public transport networks. An assessment of the impact of new car parking on air quality and carbon emissions must be provided.

Policy T07. Supporting Low Emission Vehicles

Development proposals which include parking facilities or which will be likely to generate vehicle movements or vehicle ownership will be expected to integrate the provision of infrastructure to enable the charging of electric or other ultra-low emission vehicles into the design and layout of the development. The proposed development will be expected to meet the following criteria:

Residential development

i. All individual dwellings with dedicated parking space will be expected to include infrastructure suitable for charging electric or other ultra-low vehicles. In major developments (10 dwellings or more), at least 20% of dwellings will be expected to have active charging facilities, and the remaining 80% of dwellings will be expected to have passive provision.

ii. For residential development with communal off-street parking provision, at least 20% of car spaces will be expected to include active charging facilities, and passive provision for all remaining spaces with the layout of the car park ensuring that all spaces can be activated for EV charging as demand increases.

iii. In addition to (i) and (ii) above, proposals with 100 or more dwellings will be expected to provide at least one rapid charging point clustered with a fast charging point for every 10 car spaces provided.

iv. In addition to (i) to (iii) above, proposals with 100 dwellings or more will be expected to facilitate the provision of an electric or ultra-low emission car club, and enable dedicated spaces for the club with active charging facilities.

v. In circumstances where off-street parking is not provided within a development proposal, the design and layout of the development will be expected to incorporate infrastructure to enable the on street charging of electric or other Ultra-Low Emission vehicles to occur safely.

Non-residential development

i. In all non-residential developments providing 1 or more car parking spaces, ducting should be installed to enable provision of charging facilities for electric or other ultra-low vehicles. Where 10 or more car parking bays are provided, at least 20% of those bays are required to provide active charging facilities for electric or other ultra-low vehicles, and passive provision is required for all remaining bays.

ii. In major non-residential development where provision is required for taxi waiting, the taxi spaces will be expected to include active charging facilities.

All electric charging points should be linked to nearby buildings that are generating solar energy, or to buy from renewable energy providers otherwise.

(7) In 2018, the World Health Organisation named Leicester as one of the most polluted places in the UK: https://www.leicestermercury.co.uk/news/leicester-news/leicester-named-one-most-polluted-1531913
(8) The Healthy Air Campaign summarises the health effects of air pollution: https://www.healthyair.org.uk/the-problem/
(9) The Public Health Outcomes Framework shows that healthy life expectancy is below average in Leicester: https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data/page-options/ovw-do-0#page/0/gid/1000049/pat/6/par/E12000004/ati/202/are/E06000016/cid/4/tbm/1/page-options/cin-ci-4_ovw-do-0
(10) The Committee on Climate Change, in their 2020 progress report to Parliament, recommend that the UK seize the opportunity to turn the COVID-19 crisis into a defining moment in the battle against climate change, to achieve a resilient recovery. They stipulate that this should include infrastructure to encourage cycling and walking: https://www.theccc.org.uk/publication/reducing-uk-emissions-2020-progress-report-to-parliament/#outline
(11) The Home Zones approach recognises that reducing the dominance of cars improves residents' quality of life: https://www.jrf.org.uk/report/home-zones-planning-and-design-handbook
(12) Arup's report, 'Cities Alive: Towards a Walking World', describes the social benefits of walking: https://www.arup.com/-/media/arup/files/publications/c/cities-alive_towards-a-walking-world_lowres.pdf
(13) Many cities in the US are now taking the Transit Oriented Development approach: http://www.tod.org/
(14) New powers for councils to keep cyclists safe, published June 2020: https://www.gov.uk/government/news/new-powers-for-councils-to-keep-cyclists-safe
(15) See https://slp-ng.com/scheme/
(16) See this example from Germany, which proves it is possible. https://youtu.be/TWg1qpFhENU