

4.2 Health and wellbeing

- 4.2.1 The design of the built environment has a significant role to play in the health and wellbeing of residents and workers. High quality developments, built to be future-proofed and enhance the local environment can deliver multiple benefits for new and existing residents. Many of the policies contained within the 2018 Cambridge and South Cambridgeshire Local Plans seek to ensure that new developments enhance the health and wellbeing of those who live and work in the Greater Cambridge Area. More specifically, Policy SC/2 of the South Cambridgeshire Local Plan (2018) requires the submission of a **Health Impact Assessment** for proposals of 20 or more dwellings or 1,000m² or more of new floorspace, and further guidance will be contained in an update to the South Cambridgeshire Health Impact Assessment SPD and updates to both Councils Affordable Housing SPDs.
- 4.2.2 This section is divided into the external environment of healthy neighbourhoods and internal spaces of healthy homes. A large number of factors influence and improve health and wellbeing, not only how neighbourhoods and the buildings in them (particularly homes) are designed and constructed. However it is clear that poor design and construction quality can have a direct impact on ill health.
- 4.2.3 In a neighbourhood, the built environment plays a significant role in whether or not a person becomes socially isolated. Public Health England note that social isolation can cause a range of mental and physical health impacts⁵⁴. Our built environment plays a significant role in whether or not a person becomes socially isolated. Physical access to friends and family, health services, community centres and shops, open spaces and other places and spaces enable individuals to build and maintain their social relationships. Poor transport links create barriers to social inclusion, whereas effective transport links benefit social cohesion, enabling individuals to play a more active role in their community. In designing new developments, we need to be aware of the elements that can create barriers to social inclusion and maximise opportunities for people to build social relationships to create healthy neighbourhoods, as illustrated in figure 13 below. This can include:
- Designing the built environment to make streets conducive to walking and cycling, whilst also ensuring that those with limited mobility are catered for, to help encourage social connectivity;
 - Engaging with the local community in the design of public spaces to ensure that they meet the needs of residents is important in building a sense of ownership and belonging;
 - Designing the public realm for safety with consideration given to natural surveillance, appropriate lighting and good visibility of key routes so that users of spaces feel safe;

⁵⁴ PHE (2015). Local action on health inequalities. Reducing social isolation across the lifecourse. Practice resource: September 2015. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/461120/3a_Social_isolation-Full-revised.pdf

- Giving consideration to the role that community development officers can play in helping to assist with community development, particularly in large new developments.
- 4.2.4 Where new communities are being built, facilities and amenities need to be in place to support new residents early on in the development, as well as enabling surrounding communities to access facilities. However, planning for new infrastructure alone will not build a community and new residents need to be supported to ensure they are able to integrate well to create a sustainable community.
- 4.2.5 Access to a range of open spaces, both private and communal, is an important element of well-designed new developments that help to create healthy communities with a good quality of life. It is well documented that people’s experience of their local green space can affect their physical, mental and social health. All scales of development present opportunities to create and improve the public realm, open space and landscaped areas that that are dispersed throughout the development and equitable to all residents, respond to their context and the development as a whole and are designed as an integral part of the scheme. These spaces can take many forms, including:
- Private amenity spaces – gardens, balconies, terraces and roof terraces/gardens;
 - Formal and informal space, with consideration given to these spaces being multifunctional, seeking not just to provide residential amenity but also biodiversity enhancement and the integration of sustainable drainage;
 - Spaces that can become a focal point for communities that encourage social interaction and recreation, for example shared spaces and play areas. Consideration should be given to ways in which residents can be engaged in the upkeep of communal green spaces, for example areas that are set aside for food growing.
- 4.2.6 The distinction between the public and private realms should be clear, with careful consideration to boundary treatments and the role of materials and landscape features in delineating these spaces e.g. the use of Sustainable Drainage Systems (SuDS) such as rills to mark the boundary between the public and private realm.
- 4.2.7 In flatted schemes, the aim should be to ensure that all flats have access to communal space that:
- Is overlooked by surrounding development;
 - Is accessible to all residents of the block;
 - Is designed to take advantage of direct sunlight;
 - Has suitable management in place.
- 4.2.8 Biophilic design is another approach that can enhance health and wellbeing. Biophilic designs are those that connect people to nature and natural processes, enabling them to act in more productive ways. Examples of biophilic design, which can take place at a building or site wide scale, include:
- Providing natural space with naturalised or planted areas around buildings and ensuring that windows overlook these areas;
 - Routing access paths through planted areas;
 - Bringing nature and planting inside buildings, including the use of green roofs;

- The use of natural materials.

Figure 13: What makes a healthy neighbourhood (Infographic developed by PRP for UK-GBC)

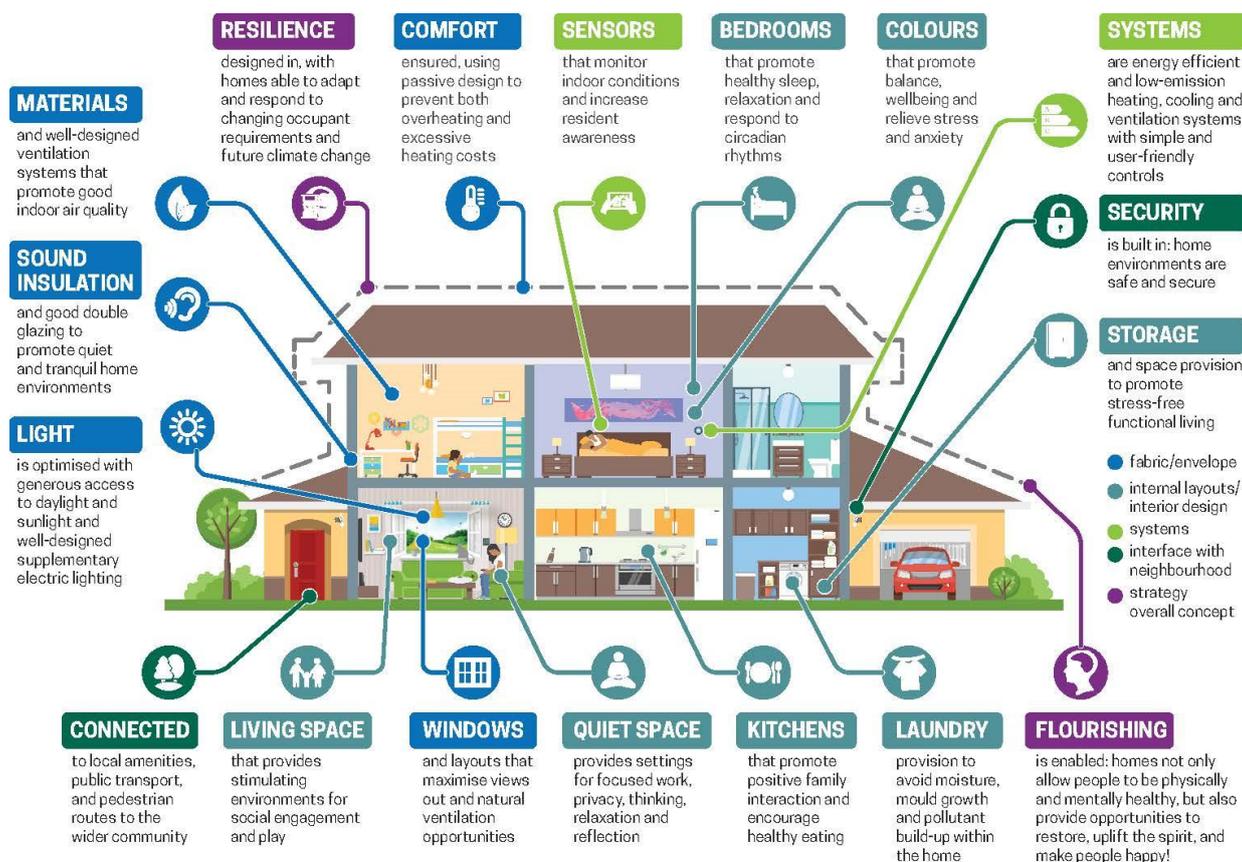


4.2.9 Moving on to the internal spaces of buildings, given we spend around 65% of our time at home⁵⁵ and around 90% of our time inside buildings⁵⁶ the quality of the internal environment can have a significant impact on health and wellbeing. Numerous research studies have shown the effects on mental health, social wellbeing and physical health. figure 14 below provides an illustration of the various factors that go into making a healthy home. All of these factors are worth considering, but focus is given below to a few examples felt to be of particular significance in Cambridge homes.

⁵⁵ <https://www.ashrae.org/resources-publications/free-resources/10-tips-for-home-indoor-air-quality>

⁵⁶ APPG for Healthy Homes and Buildings. Building our future. Laying the foundations for healthy homes and buildings. White Paper. October 2018. Available online at: <https://healthyhomesbuildings.org.uk/>

Figure 14: What makes a healthy home (infographic developed by PRP for UK-GBC)



4.2.10 The quality of the air we breathe whether outside or inside the home can have significant health implications, but air pollution is usually associated with the external environment. However internal air quality can be of poor quality due to infiltration of external pollutants (e.g. nitrogen dioxide and particulates from vehicles) and build-up of internal contaminants such as cleaning products, VOCs and formaldehyde given off by furnishings and building materials, and the carcinogenic acetaldehyde from fabric softeners in drying laundry. Increasing levels of moisture is also an air quality issue as it results in levels of spores and dust mites that exacerbate health conditions such as asthma and allergies. There are a number of recommendation for the design of homes that ensure the maintenance of good air quality, such as dedicated laundry drying spaces, accessible windows (or other ventilation means) to allow trickle as well as purge ventilation, a home user guide to simply explain and advise how to operate and maintain the property, etc. Much of this good practice will also reduce energy use (see more information on moisture below). More examples are given in UK Green Building Council’s Health and Wellbeing report⁵⁷.

4.2.11 The ability to use and control natural light in our homes has a huge beneficial effect on wellbeing. Good levels of daylight and sunlight are shown to improve sleep, reduce anxiety and limit conditions like SAD (seasonal affective disorder). But designs should ensure problems of glare and overheating are not created, or that shading with curtains

⁵⁷ <https://www.ukgbc.org/ukgbc-work/health-wellbeing-homes/>

or blinds is essential. The use of as much natural light as possible during daylight hours will reduce the need for artificial light and thereby lower energy use. The design of artificial lighting should be carefully considered to enhance the home and be adaptable, adjustable and low energy.

- 4.2.12 Thermal comfort is a key factor in maintaining good health. The impact of cold housing specifically was estimated to cause a fifth of excess deaths in winter 2014-15 in England and Wales and at the other end of the scale overheating poses significant health risks (this is dealt with in other sections of this SPD). The fabric of buildings, insulation levels, orientation, glazing size and position and design of heating systems are all critical elements that will effect thermal levels in a home. In addition, the provision of comprehensive but simple information on how heating, ventilation and hot water systems operate should enable residents to easily make adjustments to suit their needs and keep energy consumption reasonable.
- 4.2.13 Moisture is produced from a range of sources in the home. Cooking, washing, showering, drying clothes, even breathing, add significant quantities of moisture to the indoor air. The increased airtightness of homes has reduced the ability of this moisture to escape, leading to problems with damp, condensation and mould. All these cause direct health problems with the increases in mould spores, bacteria, dust mites as well as the indirect effects of damage to furnishings and fittings. Minimising the production of moisture and then controlling ventilation and air circulation is key – allowing moisture-filled air to escape outside, especially in areas like kitchens and bathrooms. Drying clothes indoors can add the equivalent of 10-15 litres of water to the air in the average home, so it is recommended to provide space to dry clothes outside, removing this source of moisture. Reducing moisture levels will also reduce energy consumption as damper air takes more energy to heat. Clear information on the operation of ventilation systems and devices is recommended and any ongoing maintenance requirements clarified, as well as guidelines for maintaining adequate heating levels etc.
- 4.2.14 The same can be said of the buildings in which we work, and the impacts of ‘sick building syndrome’ have been well documented and recognised by the NHS. Data compiled and published by the UK Green Building Council notes that there are 570,000 hours lost to workplace absence caused by poor building design, and 30.7% of people do not consider that the design of their workplace enables them to work productively⁵⁸.
- 4.2.15 For schemes utilising the BREEAM standard, credits are available under the health and wellbeing section, covering issues such as visual comfort, thermal comfort and indoor air quality. The WELL Building Standard, developed by the International WELL Building Institute also provides an approach that explores how design, operations and behaviours within the places we live, work, learn and play can be optimised to advance human health and wellbeing.
- 4.2.16 The Councils will be supportive of the integration of measures into the design of new developments that seek to enhance health and wellbeing, and we would recommend

⁵⁸ Data from: <https://www.ukgbc.org/health-and-wellbeing/>

that consideration of some of the approaches referenced above be included with Sustainability Statements and Design and Access Statements.

Further guidance

- UK Green Building Council (July 2016). Health and wellbeing in homes. Available online at:
<https://www.ukgbc.org/sites/default/files/08453%20UKGBC%20Healthy%20Homes%20Updated%2015%20Aug%20%28spreads%29.pdf>
- For further information on the International WELL Building Institute and the WELL Standard, see: <https://www.wellcertified.com/>
- For information on Biophilic design and the BRE's Biophilic Office research project, see: <https://www.bregroup.com/services/research/the-biophilic-office/>
- South Cambridgeshire District Council (2011). Health Impact Assessment Supplementary Planning Document. Available online at:
<https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/health-impact-assessment-spd/>