

Introduction



What is the purpose of this guidance note?

This Guidance Note has been prepared by East Suffolk Council in response to the climate change emergency that was declared by the Council in July 2019. Whilst this is not a statutory document that will be used to determine planning applications, the Guidance Note supports the vision of the Council and the existing measures already put in place by the Council and on a national scale, including commitment by the Council to be carbon neutral by 2030. The Guidance Note provides simple, concise information on best practices for developers seeking to mitigate the impact of the building industry on climate change. The Guidance Note includes information on the measures implemented by East Suffolk Council.



Actions taken by Government to address Climate Change

Click on each bullet point to find out more:

- Climate Change Act 2008
- Signee of UN Paris Climate Change Agreement 2016
- Intergovernmental Panel on Climate Change Report 2018
- 25 Year Environment Plan 2018/NPPF 2019
- Parliamentary Declaration of Climate Emergency 2019
- Future Homes Standard

Actions taken by East Suffolk Council to address Climate Change

Click on each bullet point to find out more:

- Implementation of Town & Country Planning Act 1990 (as amended)
- Establishment of East Suffolk Greenprint Forum
- Historic Suffolk Coastal & Waveney Local Plan Policies
- Declaration of Climate Emergency 2019
- East Suffolk Local Plans Policies
- ESC Environmental Guidance Note

How to use this document?

The Environmental Guidance Note is an interactive document that provides advice on how to help address the issue of climate change in relation to new development. The guidance can be used by anyone looking to undertake new development or renovate existing buildings at any scale.

Each page provides a snapshot of information about each topic and it is encouraged that users refer to the section titled 'Key sources for further information' which provides a list of links that can be clicked on to access more information on that topic.

Whilst not a planning requirement, the Guidance Note can be used to inform design and access statements, Neighbourhood Plans, comments made on planning applications, general household maintenance and much more.



Energy Efficiency



A well-insulated building with an efficient boiler can reduce energy consumption and bills. Renovations to existing buildings should consider what improvements can be made to the levels of insulation, the method of heating and electrical appliances. Extensions and new buildings should be constructed to standards that exceed the minimum Building Regulation requirements achieving sustainable BREEAM or Passivhaus standards.





What the Council is doing:

East Suffolk Council is regularly improving housing by installing new boilers, central heating, additional insulation and solar panels on its properties. East Suffolk Council is committed to increasing the energy efficiency of key buildings within its ownership and an energy efficiency review has been commissioned that will determine the schedule of works and the energy efficiency targets for those buildings.

Building Control offer pre-application advice to those renovating, extending and constructing new buildings. The Planning Team offer pre-application advice for planning applications. Historic England and the East Suffolk Design and Conservation Team offer advice on renovating and adapting listed and historic properties.

What to aim for?

House renovations and extensions should consider:

- Install a smart meter.
- Replace the boiler and update to smart controls.
- Installing low energy appliances.
- Installing double or triple glaze doors and windows.
- Upgrading the insulation (eg. loft & hatch insulation, cavity insulation, batten and insulate internal walls or apply external wall insulation).
- Renovate to the BREEAM Domestic Refurbishment standard.

New build developments should consider:

- Construct new dwellings in the Suffolk Coastal area to a standard 20% higher than minimum required by Part L Building Regulations.
- Construct new buildings to Passivhaus standards.
- Construct new dwellings to BREEAM Code for Sustainable Homes standard.
- Achieve the BREEAM Home Quality Mark certification.

Key Sources for further information

Energy Performance Certificates

Historic England

Building Control and Regulation information

BREEAM

Passivhaus standards

Community Building Advice Service

Sustainable Construction <u>WLP8.28</u> & <u>SCLP9.2</u> Planning Policies

Building Regulations Part L

Renewable Energy





Renewable energy is generated from natural sources such as the sun, wind and water. Reducing our use and dependence on fossil fuels and switching to renewable energy is key to lowering our carbon emissions. This can be achieved by integrating renewable energy technology into new builds and installing them into existing builds. There is a range of technology available to generate renewable energy for individual buildings which reduce dependency on the grid, reduce energy bills, and in some cases make money by selling surplus energy to the energy provider.

There are grants and schemes available to help with purchase of renewable energy technology. These include Suffolk's Greener Homes Loan Scheme which provides loans for energy saving measures, and the Renewable Heat Incentive which is a government scheme that offers financial incentives.

What the Council is doing:

The Council has installed over 250 air source heat pumps in homes without access to gas. Ten retired living schemes have been fitted with solar PV panels which generate an income through feedback tariffs. There is an ongoing programme of improvements at existing leisure facilities with Bungay Pool and Gym installing a combined heat and power system. Preliminary investigations are underway to see if solar panels can be installed on East Suffolk House. The Council is exploring whether there are any opportunities to collaborate on a clean energy generation project and are reviewing the current programme of clean energy generation on Council housing.



What to aim for?

Developers should consider integrating into new builds and installing into renovated and extended buildings renewable energy sources:

- Solar panels.
- Solar water heating.
- Domestic roof-mounted wind turbines.
- Air source heat pumps.
- Ground source heat pumps.
- Thermal stores.

Key Sources for further information

Green Suffolk

Energy Saving Trust

Community Building Advice Service

Renewable and Low Carbon Energy <u>WLP2.27</u> & <u>SCLP9.1</u> Planning Policies

Nature and Wildlife



Where possible, existing trees and established vegetation should be protected and enhanced when designing the layout of new developments. Trees and vegetation provide the setting for a development and contribute significantly to the sense of place and wellbeing and consideration of this is fundamental to new developments. In cases where trees are required to be removed, the Council encourages action to increase tree and vegetation planting which is appropriate for the geology and landscape and be a native wildlife-rich species. It may not be possible to plant trees in a meaningful way as part of developments on individual residencies, in such instances the Council would encourage donations to community planting schemes. Opportunities to diversify the species across the District will be supported but only where these are appropriate for the warmer climate conditions being experienced.

Opportunities to encourage and support wildlife should also be taken on all developments. Exterior lighting should be angled correctly so that only intended areas are illuminated as excess lighting can have a detrimental impact on wildlife. The introduction of provisions such as bird nesting boxes, bat roosting boxes, ponds, insect hotels and hedgehog holes in fences or walls will be supported. Different species have different nesting and roosting requirements and the more boxes provided, the higher the chance of birds occupying them. Nesting boxes should be located in a quiet part of the site, away from human disturbance and out of reach of predators such as cats. Ideally boxes should be integrated into new buildings and should face between North and East to maximise light and reduce impact from the elements.





New developments should use gardens to support wildlife, through features such as ponds or plants which are good for bees and butterflies. Developers have the opportunity to create wildlife "corridors" by thinking about gardens as part of a wider jigsaw with other surrounding gardens and green spaces. Creating holes in the bottom of boundary fences and walls or replacing these with hedges will enable wildlife like hedgehogs to move between these areas and increase the habitat available for them.

What the Council is doing:

ESC supports ecological enhancements on its own land including through the introduction of Swift Boxes and "green" roofs at East Suffolk House in Melton and changes to how areas of grass and other vegetation is managed to benefit wildlife.

What to aim for?

Layout developments so that gardens form wildlife corridors.

Plant appropriate native species that don't require extra watering and support wildlife.

Plant trees or donate to planting schemes managed by organisations such as the Woodland Trust, Tree Council or AONB Unit.

Use hedges or fences with hedgehog holes to enable movement of animals.

Please note the information provided is for guidance only and is not a planning application requirement.

Key Sources for further information

The Tree Council

Suffolk Wildlife Trust

Bat Conservation Trust

Swift Conservation

Greensuffolk.org

Suffolk Biodiversity Information Service

Royal Horticultural Society

Biodiversity and Geodiversity <u>WLP8.34</u> & <u>SCLP10.1</u> & <u>SCLP10.3</u> Planning Policies

Siting & Orientation



The siting and orientation of the site should make good use of the natural features to ensure that the existing character of the site remains. Siting buildings in locations which minimises the need to change existing site levels and features is supported as this treats existing features as assets rather than constraints. New development of any scale should therefore aim to take advantage of existing topography, landscape features, trees, buildings and site orientation.





Maximising opportunities for lighting and heating of buildings by passive and active solar gain should be taken. To maximise access to the sun, buildings should be designed with their main elevation facing south or within 30 degrees to make best use of solar gain. Main living spaces should be located on elevations facing south, with rooms such as bathrooms, cloakrooms and utility rooms on northern elevations as these normally require less heating. Too much solar gain can however cause issues as energy is then needed to cool the internal parts of the building.

The orientation of buildings creates opportunities to make best use of natural day lighting that reduces energy demand for new buildings alongside appropriate insulation and natural ventilation. Orientating buildings in this way also allows for developments to respond to it surroundings and local character whilst enhancing the existing landscaping, natural and semi-natural features on site as supported by the Local Plan policies.

The Council is supportive of developments which include space for occupants to grow their own vegetables and increase the number of allotments as community facilities across the District. Opportunities to install solar PV in Conservation Areas are also possible subject to specific guidance.



What to aim for?

Buildings should be designed with their main elevation facing south.

Layouts which provide main living spaces with good access to natural light.

Orientation of buildings which take account of existing landscape and topographical features and protect the amenity of the surrounding areas.

Please note the information provided is for guidance only and is not a planning application requirement.

Key Sources for further information

Suffolk Design Charter

National Planning Policy Framework

Building regulations

Building for Life 12

WLP8.23 | WLP8.29 | WLP8.30 Waveney Planning Policies and SCLP8.3 | SCLP11.1 | SCLP11.2 Suffolk Coastal Planning Policies

Solar PV in Conservation Area Guide

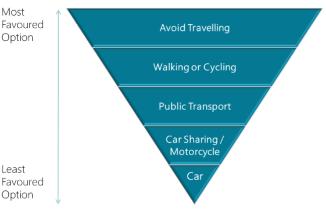
Sustainable Travel



The transport sector is considered as one of the worst polluting sectors, and recent national statistics¹ suggest this to be true. Indeed, the statistics show that a large majority of the transport emissions come from road transport. In order to address this, the government is incentivising the take up of electric and/or hybrid cars through provision of grants to help reduce the cost of buying such vehicles. The Council is also encouraging the use of electric vehicles through provision of charging points at Council offices. Furthermore, the Council is in the process of increasing the travel efficiency of its vehicle fleet demonstrating leadership in travelling sustainably.

The Council, as part of its planning functions, is planning for growth across the District over the coming years and is actively engaging with neighbouring authorities and infrastructure providers to encourage modal shift to sustainable forms of transport. Where travel by car in East Suffolk cannot be avoided, the Council is intending to make it as easy as possible to find parking spaces throughout its town centres and the payment service more digitally friendly. This will help to reduce the known nuisance of 'patrolling' where cars cruise around the town centre searching for an appropriate parking space impacting on air quality and creating noise pollution. The improved payment service through use of the RingGo app will require less cash collection trips to be made to pay-and-display machines, thereby reducing emissions of the Council's vehicle fleet.

The Travel Hierarchy



Event Travel Planning

Employment premises often include within them vehicle parking spaces. However, often these parking spaces are not used efficiently due to the premises being closed over the weekend, for example, where the hours of work are Monday to Friday. This can result in anti-social parking instances where parking spaces could be made available by a nearby employment premises for a weekend event. Employers should consider more efficient use of their parking spaces on this basis. The Council is currently working on an event travel policy.

What to aim for?

Support the increasing use of electric and low emission vehicles –

- Incorporate electric vehicle charging facilities in garages and for on-plot parking spaces.
- Provide ducting and electricity supply to communal and public parking spaces to enable future installation of charging points.

Employers can -

- Set up a car share scheme within your organisation and provide priority car parking for car sharers.
- Consider car park charges for those of your employees who live within walking distance if they chose to drive to work.

Key Sources for further information

<u>Suffolk County Council sustainable transport</u> information

<u>Pluginsuffolk – the UK's first fully open fast</u> <u>charging network</u>

2018 UK Greenhouse Gas Emissions, Provisional Figures

Suffolk County Council Travel Plan

Zap Map (locations of EV charging points)

Sustainable Travel



What the Council is doing:

The Council recognises that guiding development towards areas that are located near sustainable transport hubs such as rail stations and bus corridors, increases the plausibility of sustainable travel for residents, employees and visitors alike.





Sustainable travel is strongly encouraged throughout the Council through initiatives such as the cycle to work scheme, electric pool car hire, bike and car sharing provision and electric charging point provision. The location of Council buildings in both Melton and Lowestoft close to sustainable transport hubs encourages staff and visitors to travel sustainably. Video conferencing facilities are also provided across various Council buildings in order to negate the need to travel for meetings etc. This is a facility the Council is considering expanding upon in the future, and should be strongly considered by employers when designing their workplace. Showering facilities should also be provided in the workplace to facilitate non-motorised forms of travel to work, and the Council currently provides such facilities to its employees.

The Council is currently developing a Cycle Strategy for East Suffolk which will highlight the connectivity of key cycling routes and identify cycle infrastructure improvements. Given the relatively flat terrain of East Suffolk, the Council is keen to encourage and facilitate increased levels of cycling across the District and has managed to host national cycling events such as the Women's Tour of Britain in recent times. Greater Anglia provide for bicycles on their local train services across the district, and a number of rail stations throughout the district provide cycle parking and park and ride facilities.



What to aim for?

Layout new roads to serve and enhance Public Rights of Way. Provide safe and convenient places to cross roads. Prioritise pedestrian and cyclist desired lines of travel.

Connect pedestrian and cycle routes within developments to existing nearby routes.

Provide secure cycle parking facilities in public spaces and near building entrances to encourage take up of cycling.

Ensure every new dwelling has space for the dry and secure storage of bicycles.

Key Sources for further information

Sustainable Transport <u>WLP8.21</u> & <u>SCLP7.1</u> & <u>SCLP7.2</u> Planning Policies

Cycle to work scheme implementation guidance for employers

Waveney Cycle Strategy

Government grants for electric and/or hybrid vehicles

Greater Anglia bike provision

Surface Water Run-off



What the Council is doing:

Surface water run-off rates can often be exacerbated by intense periods of rainfall onto impermeable surfaces such as tarmac and concrete which then creates hazards for people and vehicles alike. Given the onset of climate change and the increased likelihood of intense periods of rainfall as a result of this², there is a need to address surface water run-off in all forms of development.







Sustainable drainage systems (SuDS) are a globally recognised means of naturally draining surface water run-off and are seen as a sustainable method of addressing surface water run-off in development. Systems can include swales, infiltration basins and reed beds. Suffolk County Council are the Lead Local Flood Authority and should be consulted when designing SuDs into development, particularly where the public highway is likely to be affected. SuDS design should provide a water quality, biodiversity and amenity benefit along with the natural water quantity benefits they provide.

The Council's offices at East Suffolk House in Melton include a green roof which is a form of SuDS commonly installed in urban areas where there is less space to utilize ground level SuDS. As such, this demonstrates the Council's willingness to address surface water runoff in the most sustainable and efficient way. A living wall installed on M&S in Norwich is another good example of this. The Council is currently investigating other ways of incorporating SuDS into its assets.

What to aim for?

Implement a range of Sustainable Drainage System (SuDS) measures wherever possible.

Prioritise above ground SuDS measures for ease of maintenance.

Consider building-centered SuDS measures such as green roofs or living walls to ensure the most efficient and sustainable use of land.

Avoid installing impermeable surfaces.

Avoid installing surface water drainage inlets near smoking areas or waste storage areas.

Key Sources for further information

SuDS and Flood Risk <u>WLP8.24</u> & <u>SCLP9.6</u> Planning Policies

CIRIA SuDS Manual

Susdrain website

Suffolk County Council guidance to assist in creating SuDS

IPCC Summary for Policymakers

Only Rain Down the Drain campaign

Water Conservation



Climate change will impact the weather including levels and patterns of rainfall in East Anglia. The Environment Agency has identified East Anglia as an area of serious water stress, and both Essex and Suffolk Water and Anglia Water have identified managing demand as a strategy to ensure sufficient water resources in the future.

The average person in the UK uses 150 litres of water day. A shower can use 49 litres, brushing your teeth can use 6 litres a minute, and a leaky toilet can waste 215 litres of water a day costing £200 a year.¹ Developers undertaking new development have an opportunity to take numerous steps to reduce the amount of water used during construction and increase the water efficiency of the completed build.

The government allows for greater water efficiency measures to be set through local plan policies. Policy WLP2.28 of the Waveney Local Plan and SCLP9.2 of the Suffolk Coastal Local Plan require new residential developments to achieve water efficiency of 110 litres/person/day.





What the Council is doing:

East Suffolk Council is working with neighbouring authorities and relevant stakeholders to devise a holistic water management approach. This includes new developments demonstrating that water can be made available, adequate foul water treatment and disposal exists, and incorporating water efficiency and re-use.

What to aim for?

New homes and extensions should be fitted with;

- Water meters
- Showers with low flow shower heads.
- Spray taps.
- Low flush or dual flush toilets.
- Water efficient appliances (eg washing machines and dishwashers).
- Rainwater harvesting.
- Achieve water efficiency standards of 110 litres/person/day.

Gardens in new developments should provide;

- Water butts.
- Have landscaping schemes that use plants that are not dependent on additional watering / do not require a large amount of water.

Key Sources for further information

Essex & Suffolk Water usage calculator

Anglian Water – help and advice

Sustainable Construction <u>WLP8.28</u> & <u>SCLP9.2</u> Planning Policies

Holistic Water Management <u>SCLP9.7</u> Planning Policy

Building Regulations Part H

¹ https://www.eswater.co.uk/savewater

Materials and Waste



Where practicable, the use of locally sourced, reused and recycled materials should be prioritised during the construction of new builds or conversions. Furthermore, circularity should be considered where possible in order to deconstruct and reuse materials after they have been used. <u>The Enterprise Centre, Norwich</u> is a great example of using locally sourced materials to achieve sustainability and low-embodied carbon construction.

When using new materials in construction, it is important to understand how much embodied energy each type of material has. Using materials with low embodied energy will considerably reduce the carbon impact of a project. To help understand the environmental impact of specific materials, the BRE Green Guide to Specification provides environmental ratings for a variety of widely used construction materials.





What the Council is doing:

The Council is working closely with suppliers to allow use of appropriate materials wherever possible.

Policy SCLP9.2: Sustainable Construction in the Suffolk Coastal Local Plan and Policy WLP8.28: Sustainable Construction in the Waveney Local Plan outlines what is required from new developments in terms of construction material use.

What to aim for?

Source materials locally and responsibly.

Prioritise the use of reused and recycled materials.

Use materials with low embodied energy.

Please note the information provided is for guidance only and is not a planning application requirement.

Waste minimisation sits near the top of the waste hierarchy and is therefore a key objective throughout the construction and lifetime of buildings. Waste minimisation is achieved by reducing consumption, reusing and recycling products as often as possible. One way to facilitate this is by using WRAP (Waste and Resources Action Programme) which identifies principles that can be incorporated into the design process to reduce waste.

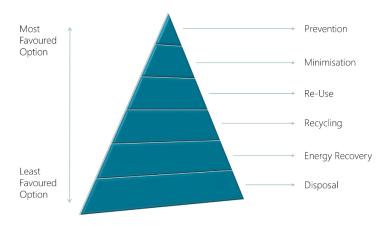


Key Sources for further information

BRE Green Guide to Specification (Subscription required)

<u>Circularity in the Built Environment: Case</u>
<u>Studies</u>

The Waste Hierarchy



Developers should seek the opportunity to incorporate composting areas on new developments as it is recognised that treatment of waste at its source is the most sustainable method of treatment. It is also recommended that compost bins are located in shaded areas, away from the house and are placed on soil to allow access for worms and microbes. The Suffolk Waste Partnership has launched a scheme that offers residents the chance to purchase subsidised composting bins.

Materials and Waste





Suffolk households produce 52,000 tonnes of food waste every year. The Council is therefore making it a priority to reduce the amount of food waste that is produced in East Suffolk. The first step is to consider how food waste can be reduced within your own home by buying only what you need, storing and portioning correctly and reusing leftovers. More information on how to reduce food waste can be found at <u>love food hate waste</u> and <u>foodsavvy</u>. The Garden Waste Scheme is a bin collection service provided by the Council to collect food waste for residents in the former Suffolk Coastal area.

New development should have enough space to store sufficient wheelie bins for each individual dwelling. Any designated space for waste receptacles should be situated well away from any surface water drain inlet.

Furthermore, there is a district-wide focus to cut down on using plastic by re-using and recycling items such as plastic bottles, carrier bags, etc. A good example of reusing can be seen in many local stores in East Suffolk that offer customers the opportunity to purchase goods by bringing their own reusable containers to refill. Suffolk Recycling is a useful resource that provides guidance on how to reduce your plastic waste in a variety of ways.



If you have a designated smoking area at your organisation, situate it away from any surface water drains or vegetated areas and provide a disposal receptacle for smokers to use.

What the Council is doing:

A lot of waste is produced when constructing new buildings and, in some instances, demolishing existing structures and replacing them with new buildings is unsustainable. The Council is retrofitting energy saving features to the existing housing stock to maximise carbon reduction. Additionally, the Council work to recycle waste products wherever practical including concrete, plastics, metal and paper.

What to aim for?

Adapt existing buildings instead of demolishing or building new, where possible.

Reduce, Reuse and Recycle building materials where possible and only buy the quantity of building materials you need.

Design the layout of new developments to include -

- Composting facilities in gardens.
- 'Bring sites' on developments.
- Wheelie bin storage.

Provide drinking water fountains in public spaces to reduce consumption of single use bottles.

Key Sources for further information

East Suffolk Recycling Bin Guide

WRAP – Designing out Waste: A design team guide for buildings

Suffolk Waste Partnership Scheme

East Suffolk Council Food Waste

Love Food Hate Waste

Foodsavvy

Suffolk Recycling

Refill Suffolk

Case Studies





Example of a property in East Suffolk that has been renovated with external insulation applied and rendered. The property was also installed with double glazing to improve energy efficiency and a 6 bike cycle rack to increase the opportunity for sustainable travel.



Example of a retired living scheme in East Suffolk that was fitted with a commercial air source heating system to improve the energy efficiency of the building.



Example of a property in East Suffolk that has installed a solar thermal heating system to reduce the amount energy the property consumes.



Example of a retired living scheme in East Suffolk where a south facing roof face provided an opportunity to install Solar PV panels to improve the energy efficiency of the building.

Green Print Forum

The Greenprint Forum is a voluntary network facilitated by the Council to aid the delivery of the East Suffolk Business Plan. It is a long established and valuable source of further information and the Council is supportive of the vision set out by the Greenprint Forum. For more information about the Greenprint Forum, their vision or opportunities to get involved, visit the Green Print Forum webpage on the Council's website.



Contact Details for Further Information



The best way to find further information on any of the topics is to use the links in the key sources for further information or visit the Council's website. However, if further information is required, please see the contact details below for each team.





For general enquiries including for pre-application planning advice, planning applications and new development please contact the **Development Management team**



Website: **Pre-application planning advice**

Email: dutyofficer@eastsuffolk.gov.uk

Phone: **01502 523100**

For enquiries regarding strategic development and planning policies please contact the **Planning Policy and Delivery team**



Website: **Planning Policy and Delivery**

Email: PlanningPolicy@eastsuffolk.gov.uk

Phone: 01394 444557

For enquiries regarding building regulations please contact the **Building Control team**



Website: **Building Control**

Email: Buildingcontrol@eastsuffolk.gov.uk

Phone: **01394 444219**

For enquiries regarding Quality of Place awards please contact the **Design and Conservation team**



Website: **Design and Conservation**

Email: Conservation@eastsuffolk.gov.uk

Phone: **01394 444610**

For enquiries regarding ecology please contact the **Ecology team**



Email: Ecology@eastsuffolk.gov.uk

Phone: **01394 444595**