Climate Change Assessment

Local Plan Policy EN1 – Climate Change

Retrospective Planning Application to Retain Gazebo

Bell Lane Farm, Bell Lane, Smalley, Derbyshire, DE7 6DU

Planning Application Reference: AVA/2026/0412

This Climate Change Assessment has been prepared in support of the retrospective planning application for the retention of an oak-framed gazebo located within the grounds of Bell Lane Farm, Bell Lane, Smalley, Derbyshire.

The assessment demonstrates how climate change mitigation and adaptation measures have been incorporated into the development in accordance with the objectives of Local Plan Policy EN1. The proposal relates to the retention of an open-sided timber gazebo and associated outdoor entertaining area within an established landscaped garden setting.

Mitigation of Climate Change

The retained gazebo represents a small-scale development with a very low operational carbon footprint.

Measures contributing to climate change mitigation include:

- The structure is predominantly constructed from timber, a renewable construction material with relatively low embodied carbon compared with many alternative building materials.
- The open-sided nature of the gazebo removes the need for space heating, mechanical ventilation or air-conditioning.
- Natural daylight provides the primary source of illumination during daytime use, minimising energy demand.
- Durable timber framing and traditional roofing materials have been utilised to ensure longevity and reduce future maintenance and replacement requirements.
- Existing mature trees, hedgerows and landscaping surrounding the site have been retained, preserving established carbon storage and ecological value.
- Construction materials have been selected to complement the rural setting whilst promoting long-term durability and sustainability.

Due to the nature of the development, operational greenhouse gas emissions associated with the retained structure are negligible.

Adaptation to Climate Change

The development has been designed to remain resilient to future climate conditions, including increased temperatures, more intense rainfall events and changing weather patterns.

Adaptation measures include:

- The open-sided design promotes natural ventilation and passive cooling, reducing the potential for overheating during periods of warmer weather.
- Existing mature trees within and around the site provide natural shade and assist in moderating local temperatures.
- The robust timber frame construction is capable of accommodating seasonal weather variations and extreme weather events typical of the region.
- The surrounding landscaped setting contributes to cooling effects and improves the site's resilience to climate change.

These measures help ensure that the structure remains suitable for its intended use throughout its lifespan.

Surface Water Management

The gazebo is situated within an established garden environment and does not create a significant increase in impermeable built development.

Surface water management is supported through:

- Retention of extensive landscaped and planted areas surrounding the structure.
- Existing permeable gravel surfaces within the wider site.
- Natural infiltration of rainfall into surrounding ground and planting areas.
- Limited overall built footprint relative to the size of the site.

The proposal is therefore not expected to increase flood risk or place additional pressure on local drainage infrastructure.

Biodiversity and Green Infrastructure

The retained gazebo is located within a mature landscaped setting containing established trees, hedgerows, planting beds and garden areas.

The retention of these features:

- Supports biodiversity and ecological connectivity.
- Provides habitat opportunities for birds, insects and pollinating species.
- Contributes to local cooling and shade during warmer weather.

- Assists in the interception and absorption of rainfall.
- Maintains the established green and rural character of Bell Lane Farm.

The development therefore continues to benefit from the environmental value provided by the existing landscape framework.

Conclusion

The retention of the gazebo at Bell Lane Farm is a low-impact form of development that incorporates climate change mitigation and adaptation principles through the use of sustainable timber construction, passive ventilation, retention of mature landscaping and permeable surroundings.

The proposal generates minimal operational carbon emissions, supports biodiversity, promotes natural cooling and does not materially increase surface water runoff.

Accordingly, the development accords with the objectives of Local Plan Policy EN1 and demonstrates that climate change considerations have been appropriately assessed and addressed as part of Planning Application AVA/2026/0412.