Daylight and Sunlight

What this leaflet is about

This guidance is for anyone who is considering building an extension to their home and considering the impact the proposal may have on their neighbour’s sunlight or daylight. The guidance also sets out how the impact of a high hedge will be assessed against this guidance.

The advice will set out the relevant criteria and advice on how to measure the impact on existing buildings and adjoining land in order to achieve a high quality in all new developments.

It is also helpful to neighbours, objectors and community councils to understand the policy guidelines we take in to account before reaching a decision. It details:
1. How Planning works
2. Introduction to sunlight/daylight
3. Sunlight/daylight – the main differences?
4. When to consider daylight/overshadowing issues?
5. The 45 Degree rule of thumb.
6. The 25 Degree Rule of Thumb
7. The vertical sky component method
8. Sunlight
9. High Hedges and their impact on Sunlight & Daylight

This advice is based on Building Research Establishment Report Site Layout for Daylight and Sunlight: A Guide to Good Practice by P J Littlefair (1991). Each application will be assessed on its merits.

They are meant as a guide to complement the policies detailed in the Development Plan.

1. How Planning Works

Our role in Fife Council is to assess planning applications, complaints and appeals. We do this by considering the Development Plan and other material considerations, including these guidelines and other planning policy and advice documents. The guidelines reflect local and national planning policies and laws.

Fife Council approves or rejects planning applications on the basis of planning laws, policies and issues.

When Fife Council approves planning permission it can impose conditions. These might cover, for example, what materials you can or cannot use. Conditions when imposed are normally to overcome an unacceptable element of a proposal. Our job is also to make sure developers and house-builders meet these conditions and build to what is approved.

One such assessment is the impact of a proposed development on sunlight and daylight to windows serving existing properties. The issue of light is also considered in the implementation of the High Hedges (Scotland) Act 2013 and this guidance supports the assessment of high hedges applications.

Minor changes to approved proposals can be submitted and we can treat these as Non Material Variations (NMVs) under delegated powers to officers. There is a separate customer guideline on NMVs showing what they are and how we deal with them. A proposed NMV which creates or introduces an impact such as the loss of light to a window in an adjacent property will be considered a material change to the approved proposal and a revised planning application will be sought with appropriate advice on the impact of the revised proposal given.

Any changes to buildings or structures also need to be checked out with the Council’s Building Standards and Public Safety Service to confirm if...
any permission is needed to change the Building Warrant plans or approvals.

2. Introduction to sunlight/daylight

These guidelines set out the relevant criteria and advice on how to measure the impacts on existing buildings and adjoining land in order to achieve a high quality in all new developments.

Applications that are considered to have a potential adverse impact upon the current levels of sunlight/daylight enjoyed by adjoining properties and buildings will need to assessed to establish the full extent of their impact, and whether that impact has a material effect on the acceptability or otherwise of the proposal.

3. Sunlight/daylight - the main differences

Daylight is defined as being the volume of natural light that enters a building to provide satisfactory illumination of internal accommodation between sunrise and sunset. This is known as ambient light. Sunlight refers to direct sunshine. Below are some helpful hints to take into account:

- The sun rises in the east and sets in the west and takes a southerly path across the sky
- The sun reaches its maximum height around noon and will generally be due south at this time.
- The sun is higher in the sky in summer months as opposed to winter months.
- The sun elevation in mid-winter does not generally rise above 10 degrees in Scotland and therefore can cast long shadows.

4. When to consider daylight/overshadowing issues?

Changes in February 2012 to the Town and Country Planning (General Permitted Development) (Scotland) Order 1992 resulted in a larger number of alterations to dwellinghouses not requiring the benefit of planning consent. Whether the proposed development requires the benefit of planning consent or not, you should consider the impacts on daylight and sunlight to your neighbour’s property and garden.

You should always consider the wider impacts of your development and still try and design your proposal so as not to impact unacceptably on a neighbouring property.

If your development does require planning consent, the Council will seek to ensure that all new development including extensions will be designed to minimise overshadowing of neighbouring properties, and the greater part of any overshadowing that occurs will be confined to the applicants own land.

There are a number of major factors that have to be taken into account in any assessment.

These are as follows:
- Height;
- Distance to boundaries;
- Size of Plot;
- Orientation; and
- Topography

A development may reduce the levels of daylight/sunlight a property currently benefits from but may still remain acceptable. New development that would result in the loss of unacceptable levels of currently enjoyed sunlight leading to overshadowing to existing windows for the majority of the day is unlikely to be acceptable to Fife Council.

Whilst a building warrant will ensure that there is a minimum level of window area to the floor area of the proposed dwelling or extension, all buildings including changes of use and extensions/new developments will still be required to receive adequate levels of light. A building warrant is no guarantee that planning permission will be granted.

5. The 45 Degree rule of thumb

At all times care should be taken in the design of residential environments ensuring adequate levels of natural light can be achieved within new dwellings and unacceptable impacts on light to nearby properties are minimised and preferably avoided.
Proposed dwellings should be laid out so as to maximise the penetration of sunlight to main rooms and gardens. The overshadowing of amenity spaces, particularly those that are used for outdoor seating should be minimised.

New flatted housing layouts in the form of ‘T’ shaped plans (i.e. projection to rear elevation), courts or quadrangles, projecting wing arrangements (on side or end elevations), house designs with projections and angled frontages, and house extensions which adjoin the front or rear of a house are required to satisfy the 45 degree assessment method.

A useful guideline to measuring the impact of the new development is the 45 degree rule of thumb method. Application of the 45° approach to domestic extensions is summarised in Diagram 1 below. A significant amount of light is likely to be blocked if the centre of the window lies within the 45° lines of both plan and elevation. The method applies only where the nearest side of the extension is at right angles to the potentially affected window and not for windows which directly face it. Where the 45 degree angle extends beyond the mid-point of the potentially affected window in only one of the plan or elevation assessments, then it is considered that whilst the proposal will impact on light it is not to an extent where a recommendation of refusal will likely be made.

If the 45 degree angle does not extend beyond the mid-point of the potentially affected window in either of the plan or elevation assessments, then it is considered that the proposal will have no material impact on light reaching the window of the existing property.

The 45 degree method can also be applied to new house designs in situations where windows are placed at the corners of internal courtyards; ‘L’ or ‘T’ shaped or angled blocks. In all new residential development proposals where future extension(s) could cause serious loss of light to neighbouring property Fife Council will consider removing permitted development rights.

Diagram 1
Overshadowing: 45° assessment method
6. The 25 Degree Rule of Thumb

This approach should be used when the new development directly faces the affected window. Suitable daylight for habitable rooms defined as livingrooms, kitchens and bedrooms, is achieved when a 25 degree vertical angle taken from the centre of the lowest windows is kept unobstructed. See diagram 2. The recommended distance between the buildings is dependent on the opposing property ridge height. If the building opposite has a high ridge, the loss of daylight will be more notable than if the building has a lower ridge height. If the proposed development fails this test and that of the 45 degree method then further investigation and evidence will be required by the Council in order to assess whether an unacceptable loss of sunlight/daylight will occur.

It should be noted that 18 metres is the minimum separation distance for privacy between windows, but where development is proposed adjacent to taller buildings or on sloping sites this distance may need to be increased if adequate daylight is to be maintained.

7. The Vertical Sky Component Method

In cases where it is not possible to meet the criteria set out above and where a more detailed assessment is necessary, for example in areas of historic townscape, this should be made by calculating the vertical sky component. The methodology for calculating the vertical sky component is set out in more detail in the BRE report “Site Layout Planning” which also contains advice and guidance on interior daylighting standards. (This information may be requested to be submitted in support of your application). A satisfactory level of daylight is assessed by calculating the vertical sky component for neighbouring property whether existing or, when none exists, for possible development equal to the proposed.

New development adjacent to vacant land should as a minimum requirement ensure that this land retains the potential for good diffuse daylighting.

8. Sunlight

All new development should seek in line with other policies and guidance to maximise the benefits of sunlight to provide a pleasant living environment and promote solar gain.
9. High Hedges and their impact on Sunlight & Daylight

The High Hedges (Scotland) Act 2013 now provides a legal basis for taking action over a problem high hedge. The legislation is intended to help people in Scotland who are adversely affected by high hedges bordering their domestic property by introducing a formal complaints system that will be operated by local authorities. The Act should however only be used as a last resort. Neighbours are required to attempt to resolve the problem themselves. The legislation does not mean that all hedges above 2 metres in height will need to be cut down, nor will people need council permission to grow or retain a hedge along the boundary of their property.

When an application is received for a High Hedge Notice and Fife Council has considered that the 25 degree and 45 degree methods of assessment of impact of the hedge on the nearest window should be considered along with the British Research Establishment Guidance Hedge Height and Light Loss assessment’s two calculations for garden and window.

The method of calculation for the 25 degree and 45 degree methods of assessment are as follows:-

**25 degree hedge rule:** - Where a hedge sits immediately in front of a window of the applicant’s property, a 25 degree angle from the centre of the glass of the window shall be extrapolated to the position of the hedge. Where the 25 degree angle intersects the hedge, this is the height at which the hedge impedes light using this rule.

**45 degree hedge rule:** - Where a hedge sits to the side of a window in the applicant’s property, a 45 degree angle from the centre of the window shall be extrapolated to the position of the hedge. Where the 45 degree angle intersects the hedge, this is the height at which the hedge impedes light using this rule.

The assessment criteria are that the lowest hedge height for the 3 calculations will be the height at which the hedge impedes light.

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