

BUILDING ACT 1984 - SECTION 16(10)(a)

DETERMINATION OF COMPLIANCE WITH THE BUILDING REGULATIONS 2000 (AS AMENDED) IN RESPECT OF THE CONVERSION OF AN EXISTING GARAGE AND A SINGLE STOREY EXTENSION TO PROVIDE HABITABLE ACCOMMODATION (REQUIREMENT A2 – GROUND MOVEMENT)

The proposed work and question arising

4. The papers submitted indicate that the building to which this determination relates is a two storey semi-detached house built in the 1930s. On the south side is a single storey attached garage with concrete floor slab, single-leaf brick external walls and a profiled fibre-cement sheet roof on purlins. There is an internal door between the garage and the house and the garage is used for domestic storage and utility purposes.

5. You submitted a full plans application to the Council in January/February 2008 for building work which comprised a proposal to demolish the existing attached garage and to erect a new single storey side extension capable of supporting a future upper storey extension. This application was rejected by the Council on 18 April on the grounds that insufficient information had been provided to determine compliance with the Building Regulations 2000 (as amended) (hereafter referred to as "the Building Regulations"). The Council explained that it had requested that the foundation depth and ground floor construction should be designed in accordance with a recognised design guide, as there were concerns about the potential effects of the trees in the rear garden causing damage to the extension due to ground movement (heave and/or subsidence).

6. You therefore submitted new plans and other information to the Council in May which described the proposed building work as a "Conversion of Garage & Single Storey Extension to Dwelling". You refer to the work as now comprising a conversion of the garage structure to make provision for wheelchair-accessible bedroom accommodation, with a shower room and WC including:

- a new flat roof;
- new rear external walling and foundation (replacing an existing rear wall), internal lining walling and insulation to existing external walling, and filling-in of the garage door opening;
- new reinforced floor slab and insulation laid over the existing garage floor;
- sanitary fittings and drainage.

You add that three small trees in the rear garden - an oak tree and two cypress trees - are to be felled ahead of the construction work.

7. However, the Council took the view that your amended plans/proposals did not represent a conversion of the garage as described and they were therefore treated as amendments to your original full plans application. The Council

considered that due to the extent of the demolition of the existing garage and alteration work proposed, the building work should be regarded as an extension to the existing dwelling, and was therefore subject to compliance with Requirement A2 in Part A (Structure) of Schedule 1 to the Building Regulations, amongst others. The Council also considered that your submitted calculations and foundation details were not sufficient to establish compliance with Requirement A2. It is in respect of these questions that you have applied for a determination.

The applicant's case

8. You explain that your client is wheelchair-bound and in urgent need of accessible ground storey accommodation including a shower room and WC. As indicated above, following the Council's rejection of your full plans application, you submitted new plans/proposals which included a foundation design prepared by a qualified structural engineer. The new plans propose to largely retain and convert to habitable accommodation the existing garage and you state that the "significantly changed design" was due to:

- expediency and the urgent need for access accommodation in view of your client's deteriorating disability;
- advice and recommendation received from your consultant structural engineer following his inspection of the existing garage, trail holes, trees, etc;
- a wish to avoid potential Party Wall Act issues and disturbance of the adjacent neighbours' building;
- a wish to mitigate the Council's concerns over the foundation design - you believe that Part A does not apply to the proposed building work as you consider it comprises a material change of use covered by regulations 5 and 6 of the Building Regulations.

9. You consider that the Council has raised "invalid questions of compliance" with the Building Regulations. This relates to the Council's "ruling" that the work should be regarded as an extension, not a conversion, which in your view seems to "invoke Section 123 of the Building Act", and as regards compliance with Requirement A2 of the Building Regulations.

10. You draw attention to the detailed arguments about the existing trees and the foundations you have made to the Council to support your case that your proposals comply with Requirement A2, if applicable, and refer to the Zurich Technical Manual. These include the points that:

- the trees are small and will be felled;
- the oak tree is nearest the existing building at 5m distance but it has been occasionally pruned and extends not much above a 2m high boundary fence;
- there is no evidence of damage or distress to the existing building that may be traced to the effects of the trees on shrinkable clay subsoil, so there was unlikely to be any heave effect;
- there has been no dry period since winter and the subsoil is unlikely to have materially dessicated;

- between the trees and the house there is a public sewer at least 750mm deep, so tree rootlets are unlikely to seek moisture beyond the sewer trench and beneath a building.

11. You also made a number of further comments in response to the Council's representations to the Secretary of State (see below) relating to:

- the change of scheme;
- the Council's assertion that your consultant structural engineer's advice does not comply with NHBC Chapter 4.2 'Building Near Trees Guide', which you challenge. You point out that he has visited the site and carried out the necessary inspections, which the Council has not;
- your view that the NHBC guidance, effective from September 2008, could not have informed the Council's earlier decisions and your further contention that your proposals nevertheless comply with this guidance. You say that the three trees are less than 50% of mature height and consider that, having regard to the present heights of the trees and the regular pruning of the oak tree and other relevant factors, the removal of the trees is unlikely to result in clay heave damaging to the proposed work or existing building.

12. You also added that you have found that other local authorities publish guidance on 'garage conversions' and consider that the Council's decision in this case is at odds with other authorities. You conclude with your view that the "extent of demolition" comprises the removal of an asbestos sheet roof (which cannot be retained) and the rear wall which largely consists of a window and external door (which are to be replaced by a new patio door).

The Council's case

13. The Council advises that the borough is known to be in an area with clay subsoil and that it has received numerous soil investigation reports with applications for building projects throughout the borough which have suggested the clay to be "highly shrinkable".

14. The Council refers to the details of your original application and explains why this was rejected. The Council also refers to your amended plans and specification which in the Council's view details the demolition of a significant part of the garage and the erection of new front and rear walls on new foundations, a new flat roof and a substantial amount of new floor slab. The Council notes that the only part of the existing garage proposed to remain is the flank brick wall, albeit with a new inner block skin, on a revised reinforced concrete foundation and a section of floor slab. As stated above, the Council considered that these amended proposals did not represent a conversion of the garage as you described and so were treated as amendments to the original application.

15. The Council questions the calculation sheet DR/04 prepared by your consulting structural engineer which advises a design foundation depth of 3m in accordance with NHBC Chapter 4.2, assuming the mature height of the oak tree, but if the tree is removed along with the two conifer trees he advises they will have no effect in terms of potential ground movement. In the Council's view this advice

does not comply with the NHBC guidance and there is no further qualification or supporting evidence to support this statement, other than the fact that your consultant has inspected the trees and a trial hole and no desiccation of the clay was observed. The Council also notes your reference to the trees to be felled as "small ornamental garden trees", although you advise that the oak tree has been regularly pruned to reduce and restrict its natural height.

16. The Council states that paragraph D5(d) of NHBC Chapter 4.2 'Building Near Trees Guide' advises that "where trees have undergone or are to undergo heavy crown reduction or pollarding, the mature height should be used or a Registered Arboriculturalist should be consulted to undertake a site specification assessment". If removing a tree less than half its mature height, the guide suggests the actual height can be used in calculating the design foundation depth. But in this case, the actual height of the oak tree is not representative of a realistic design height, as it has been mechanically reduced.

17. The Council adds that the two conifer trees have not been formally identified as requested, but from the photographs submitted they would appear to be "Lawson's Cypress" of a substantial height and therefore have the potential to cause ground movement. The Council states that NHBC guidance also suggests heave precautions should be provided where the design foundation depth exceeds 1.5 metres.

18. The Council concludes by summarising its position as follows:

- (i) There is no clear definition within the Building Regulations of the term "erection or extension of a building" in regulation 3(1)(a) of the Regulations, and it is not defined in the 1984 Act. Consequently, in accordance with standard principles of interpretation of legislation, the Council has had regard to the plain English meaning in relation to the circumstances and proposals and takes the view that, due to the extent of the demolition of the existing garage and alteration work proposed, the building work should be treated as an extension to the existing dwelling and the proposals are therefore subject to Requirement A2, amongst others.
- (ii) The deposited plans indicate three trees to the rear of the proposed extension that are to be removed. The effect of these trees, and their removal, has the potential to cause swelling and/or shrinkage of the clay subsoil, and so impair the stability of the extension. The Council does not consider that the submitted calculations and foundation details are sufficient to establish compliance with Requirement A2. Further justification for the foundation depth specified, and details of any necessary heave precautions in accordance with a nationally recognised design guide, have therefore been requested in order to determine compliance. As an adequate response to this request for further information has not been received, your full plans application has been rejected.

The Secretary of State's consideration

19. The Secretary of State has given careful consideration to the particular circumstances of this case and the arguments presented by both parties. In her view there are two questions arising on which you and the Council disagree:

- (i) first, whether the proposed building work relating to the attached garage comprises a new extension to an existing building (in this case a dwelling), or a material change of use of the garage to habitable accommodation; and, based on the answer to that question,
- (ii) whether your plans/proposals comply with Requirement A2 of the Building Regulations.

20. Taking the question arising in paragraph 19(i) first, the Secretary of State notes that you suggest that the Council "seems to invoke" section 123 (titled Meaning of "construct" and "erect") of the 1984 Act in reaching its view. However, in response to the Secretary of State, the Council has not referred to section 123 but has explained how the Council's view was reached - see paragraph 18(i) above. The Secretary of State considers that section 123 of the 1984 Act is not applicable to this case and agrees with the Council's approach to determining the question in paragraph 19(i).

21. From the information provided by both parties, the Secretary of State observes that you are not proposing simply to change the use of the existing garage into habitable accommodation. Your revised plans/proposals indicate that you propose to demolish a significant part of the garage and that the work will include: the erection of new front and rear walls on new foundations; a new flat roof; a substantial amount of new reinforced floor slab and thermal insulation; and sanitary fittings and drainage. The Secretary of State takes the view that, due to the extent of demolition and building work proposed, it would be reasonable to treat the work as comprising a new extension to the existing building. The building work would therefore be subject to Requirement A2 of the Building Regulations, amongst others.

22. Turning therefore to the second question in paragraph 19(ii), the Secretary of State notes that the Council's main concern in this case is "the potential effects of the trees in the rear garden causing damage to the extension due to ground movement (heave/and/or subsidence)".

23. From inspection of the documents and photographic evidence provided, it is evident that the oak tree was once considerably larger but has been pollarded and cut back to its present crown size. However, the root system will have grown and be of some considerable size and will have influenced the natural moisture content of the subsoil.

24. The Secretary of State considers that the proposed extension will fall within the 'zone of influence' of the oak tree's root system. Even if the oak tree is removed there is still the potential for the ground to heave when the moisture content becomes stable. Knowing that the subsoil is believed to be highly shrinkable, any changes to its moisture content may result in ground movements which should be allowed for in the foundation design. Reliance should not be given that tree roots will not extend beyond the line of the existing public sewer, as the pipeline should in fact be watertight and not leak water into the ground.

25. The foundations for the extension, and any underpinning to the existing foundations, should therefore comply with the recommendations given in the NHBC Chapter 4.2 'Building Near Trees Guide' and, as submitted on your plans, the Secretary of State concludes that they do not demonstrate compliance with this guidance or with Requirement A2 of the Building Regulations.

26. It should, however, be noted that if it can be confirmed that the subsoil is not highly shrinkable or a suitable formation is achieved while excavating, then perhaps an economical pragmatic foundation design could be used in association with protection against any possible heave.

The determination

27. As indicated above, the Secretary of State has concluded and hereby determines that the proposed building work, as shown on the submitted plans and other documentation, comprises the erection of a new extension to the existing dwelling and that the plans do not comply with Requirement A2 (Ground Movement) in Part A (Structure) of Schedule 1 to the Building Regulations 2000 (as amended).

28. You should note that the Secretary of State has no further jurisdiction in this case and that any matters that follow should be taken up with the building control body.