

Appendix 1

LISTED BUILDING CONSENT ORDER FOR THE INSTALLATION OF SOLAR PANELS ON GRADE II LISTED BUILDINGS IN THE ROYAL BOROUGH OF KENSINGTON AND CHELSEA

This Local Listed Building Consent Order is made under the provisions as set out in the Planning (Local Listed Building Consent Orders) (Procedure) Regulations 2014 and Sections 26D - G and 28A and Schedule 2A of the Planning (Listed Buildings and Conservation Areas) Act 1990

1. Introductory

THE LOCAL LISTED BUILDING CONSENT ORDER is made on theday of 20.....

2. The listed buildings covered by the order: -

- i) Any Grade II listed building within the area of the Royal Borough of Kensington and Chelsea, excluding any ecclesiastical building which for the time being is in use for ecclesiastical purposes.
- ii) Any building listed at Grade II*, within the area of the Royal Borough of Kensington and Chelsea, excluding any ecclesiastical building which for the time being is in use for ecclesiastical purposes, and excluding those buildings listed in Schedule 1 of this Order.

3. Description of the consented works

3.1 Installation of microgeneration solar PV¹ or solar thermal equipment and associated equipment².

3.2 Consent is granted subject to the following conditions: -

- i) the solar equipment is to be installed on a roof structure³;
- ii) the solar equipment is not to be placed on any roof slope facing a highway;
- iii) the solar equipment would protrude no more than 0.2 metres beyond the plane of the roof when measured from the perpendicular with the external

¹ For the purposes of this Order, solar PV equipment is taken to include 'solar tiles' or 'solar slates' as well as solar panels.

² For the purposes of this order, associated equipment is taken to include elements such as supporting frames and external fixings, as well as equipment necessary for the operation of the system such as cabling, inverters, controller, heat transfer pump etc.

³ For the purposes of this Order this includes the roof of any extension, outrigger or other ancillary structure which forms part of the principal listed building.

- surface of the roof, unless agreed otherwise in writing by the local planning authority;
- iv) no part of the solar equipment would be higher than the highest part of the roof, excluding chimneys;
 - v) the solar equipment is, so far as practicable, sited so as to minimise its effect on the external appearance of the building;
 - vi) details of the position, size, fixing, colour and finish, associated equipment, and any minor strengthening works to the roof shall be submitted to and approved in writing by the Local Planning Authority before works commence;
 - vii) the solar equipment is maintained in good order and removed as soon as reasonably practicable when no longer needed. Works of making good, whether internal or external, shall be finished to match the adjacent work with regard to the methods use and to colour, material, texture and profile.

Reasons: *In order to safeguard the special architectural or historic interest of the building.*

4. Statement of Reasons

- 4.1 The Borough comprises a small geographical area, dominated by a historic townscape where most of the characteristic development took place over a relatively short span of time within the nineteenth century. This has resulted in a very distinctive built form dominated by aspirational town houses for the middle classes, most often in terraces, created as part of the planned development of large estates. These buildings have been subject to many changes over the years including subdivision into flats or conversion into uses such as hotels and embassies, although many remain as single dwellings. Commercial and industrial buildings of the same period are represented too, as are ancillary buildings such as mews and alternative forms of dwelling such as mansion blocks or artists' studios. There are of course buildings which fall outside these age ranges and types, but this is the predominant character which is represented in the canon of listed buildings within the borough.
- 4.2 Buildings are listed for their special architectural and historic interest, and listed building consent is required for works which affect this special interest. Many of the borough's listed buildings comprise terraces of townhouses, where the special interest resides in their architectural composition as a whole and their contribution to the planned development of the area. Nonetheless other aspects, including features of the individual buildings within the terraces, may also be of interest, including internal plan form, the hierarchy of spaces and internal circulation patterns, and surviving original decorative features which reveal Victorian social attitudes to class, domestic arrangements and

privacy, and the evolution of taste and style over the period respectively.

- 4.3 The law requires that in drawing up the Order the Council has special regard to the desirability of preserving listed buildings 'of a description to which the Order applies'⁴, their setting or any features of special architectural or historic interest which they possess. Accordingly, we have reviewed the significance of buildings which conform to the prevailing types within the Borough as well as the exceptions to these. This has been conducted through review of list descriptions, our own assessments of significance, and through consulting other written sources. We have also made use of satellite information to look at roof forms within the borough as they are the features most relevant to the consented works given the need for solar equipment to be raised up and avoid overshadowing for their effective operation.
- 4.4 In the case of solar equipment, effects on special interest may arise from changes to the building's appearance and from any interventions required in the historic fabric in order to fit and run it. The visibility of the external elements of solar equipment will depend on the roof form and orientation and where the equipment will need to be located to operate effectively. The roofs of many of the listed buildings within the Borough provide opportunities to locate such equipment discreetly or almost totally concealed in some cases; for instance, many of the larger houses have double ridged roofs with a central, hidden valley, while traditional London roofs also contain a valley concealed by a parapet. There are many flat roofs also, for instance on our listed modern movement buildings, which are wholly or partially screened by parapet walls, or on the top of modern mansard extensions, raised high above street level.
- 4.5 Given the arrangement of development in perimeter blocks in many part of the borough, there are some places where, while roof slopes can be seen from the rear, they are not visible from the public realm. In other locations, particularly where buildings back onto communal gardens, the rear may be more widely visible from these semi-public areas. The Council has reviewed the height and roof form of buildings backing onto communal gardens and has concluded that for the majority of them it would be possible to site solar panels in a way which has a very minor or no effect on the appreciation and enjoyment of the garden areas.
- 4.6 We have therefore considered the likely effects of solar equipment being capable of being seen on the typical listed building forms within the borough. Our first conclusion is that simply because it may be seen this does not mean that it will necessarily harm the special architectural or historic interest of a listed building to an unacceptable degree. The function and architectural intentions of the building are likely in the overwhelming majority of cases to remain clear. The social historic interest revealed in the internal characteristics of the building are highly likely to remain essentially unchanged. There is

⁴ The Planning (Listed Buildings and Conservation Areas) Act 1990, Chapter 2, Part 1, para 26F.

potential for the visual appearance of the building to be harmed if a solar installation is unduly prominent due to its siting or an inappropriate or unconsidered design, and the conditions applied to the Order are intended to guard against this. They are also intended to protect the appearance of buildings with atypical roof forms.

- 4.7 The strongest imperative is that solar equipment would not be seen from the public realm, where the architectural quality of the building is normally focused. The Order is therefore conditioned to prevent the installation of solar equipment on roof slopes facing a highway, where it would be likely to have the greatest effect on views of and appreciation of that architectural quality. It may however be located on rear or side roof slopes which do not face a highway, or on areas of flat roof. While it is possible that in some circumstances there might be an incidental view of a solar panel from the public realm, say, where the rear of a building is visible, this effect is likely to be very minor given the building and townscape forms which are typical within the Borough.
- 4.8 The visual impact of solar panels will be further reduced through their careful design and siting, use of an appropriate colour and, normally, a non-reflective finish. Condition vii) of the Order will allow the Council to have oversight of specific matters such as their position, size, colour and finish. We consider that the combination of all the applied conditions, including fine tuning of these details, will reduce as far as possible the likelihood that solar equipment will form a harmful, visually intrusive element.
- 4.9 As an intervention, it is likely that solar equipment, where seen, would appear as an honest and clearly modern intervention, and normally read as part of the equipment necessary to service the uses conducted within the building. Equipment of this kind has already become familiar in the form of water tanks, television aerials or other rooftop equipment, and solar installations will join them as they become commonplace within the townscape as the imperative for carbon reduction measures increases and becomes part of everyday life. The impacts of sensitively designed and discreetly located solar PV or thermal panels have to be considered in this context, and the Council concludes that in this context, with the right safeguards, they would not appear unduly prominent or incongruous features.
- 4.10 Standard methods of fixing solar panels or other equipment on rails mounted to hooks attached to rafters would not be harmful to the historic fabric of buildings, while it is not likely that significant interventions in historic fabric would be required for the installation of the associated equipment such as cabling or inverters. Condition vii) also allows some control of fixings of the panels themselves and their associated equipment to ensure that this is kept to a minimum and more intrusive approaches are avoided.

5. Justification for Making the Order

5.1 The Council wishes to encourage the installation of solar panels in the borough without having the barrier of the listed building process to discourage their installation. We have had very few applications for Listed Building Consent for solar panels on listed buildings, but we recognise that their installation on a less sensitive part of a listed building would help to ensure the longer-term sustainability of the outstanding townscape of parts of the borough into the 21st Century and would align with the Council's aim of being a carbon neutral borough by 2040.

5.2 For the reasons set out above in relation to the special interest of buildings within the Borough and the nature of the works, the Council considers that installation of solar equipment under this Order, subject to the conditions set out above, would have limited and easily reversible effects in terms of their removal on the special architectural and historic interest of any listed building to which the Order applies. The Order is therefore in compliance with the requirement of S. 66 of the Town and Country Planning (Listed Buildings and Conservation Areas) Act 1990 for the local planning authority to have special regard to the desirability of preserving a listed building or its setting or any features of special architectural or historic interest which it possesses. For the same reasons it also follows the requirements of paragraphs 197 and 199 of the National Planning Policy Framework (NPPF) in respect of the need to take account of the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation and the need to give great weight to the conservation of designated heritage assets.

5.3 Where harm is identified, it is highly likely to be less than substantial in degree. Any harm which might be considered to arise from works carried out under the Order would, following the requirements of paragraph 202 of the National Planning Policy Framework, be weighed against any public benefits arising from the works. While there would be a clear private benefit to the owner of the building, the Council also considers that a public benefit may be identified in making greater use of renewable energy and thereby reducing carbon emissions and that this might balance or in some circumstances outweigh the harm.

6. Purpose of the order

6.1 The Council has, in recognition of the Climate Emergency, set out its ambition for the Borough to be carbon neutral by 2040, ten years ahead of the government target. The Council will continue to support and work with businesses, residents, and local organisations to cut emissions to meet this ambitious target. The Borough is characterised by a rich historic environment with over 3,800 listed buildings, and so in order to make meaningful reductions in emissions, these must form part of this equation. Changes in building techniques

over the years mean that many of the sustainability measures that are commonly recommended for modern or new buildings are not suitable for historic properties and might harm what is special about them. Nonetheless, with careful design the twin objectives of protecting significance and improving energy performance/reducing carbon emissions can be met.

- 6.2 The Borough is also a very densely developed area, where open space, public and private, is at a premium. This means that there are limited opportunities for renewable energy installations that require outdoor space, such as stand-alone solar panels, ground source heat pumps or wind turbines. The visual effects of such installations on the sensitive historic townscape of the borough also limit the number of locations in which they would be acceptable. Air source heat pumps, an increasingly popular renewable energy source, would normally be located on the exterior of a building, and at present tend to be bulky, and so their effects on the special architectural interest of a listed building may be harmful. As a result, solar panels attached to roofs have been identified as the renewable energy source most likely to be compatible with the duty to preserve special interest while providing opportunities for widespread adoption within the borough to help achieve the net zero carbon target.
- 6.3 This Local Listed Building Consent Order has therefore been prepared to make it faster and easier for residents and businesses to install solar panels on their properties, and to signal the Council's commitment to roll out of renewable energy and carbon saving measures where appropriate in our historic buildings and areas. It is also intended to signal to owners of listed buildings that the principle of use of solar panels on listed buildings is an acceptable one, provided careful detailing is applied.
- 6.4 The generally taller heights of the built environment in the Borough, including lofty townhouses, mansion blocks and commercial buildings, means that roofs are often not visible from ground level. Solar panels are generally dark in colour, and if non-reflective in finish, can be recessive in appearance. The Order therefore restricts the possible locations for such panels to flat roofs and roof slopes not facing a highway, and the height about the roof slope at which they may be installed, to reduce likely visibility, particularly from the public realm.
- 6.5 The great majority of roofs in the borough are clad in slates or tiles, with some lead roofs. There are now well-established methods for fixing solar panels to historic buildings with these features which minimise potential for damage to fabric.
- 6.6 The condition requiring approval of details of the position, fixing, size, colour and finish is intended to ensure that they are as visually unobtrusive as possible. While this condition does require the submission of some information to the Council for approval, the process of approving a condition or a Certificate of Lawful Works is much simpler than that for a full Listed Building Consent application. For that reason, it is considered that a

reasonable balance has been achieved between a more permissive approach to these works and control of detailed matters of design.

7. Term of order

7.1 Dates from ... and to (a period of no more than 5 years from the starting date of the Order).

8. Other particulars:

8.1 Operation of the Order

- i) The Order has been made in accordance with the requirements of the Planning (Local Listed Building Consent Orders) (Procedure) Regulations 2014, including a public consultation of at least 28 days, and consultation with Historic England of at least 28 days. Representations received in response to these consultations have been considered in drawing up the final version of the Order.
- ii) The Council will review the operation of the Order on an annual basis both quantitatively, in terms of the instances of solar equipment installed under its provisions, and qualitatively, in terms of the effects on the listed buildings affected. If at any time during the life of the Order it is considered that it is either ineffective in encouraging use of solar panels or is giving rise to unexpected and unacceptable harm to listed buildings to which it applies, it will be varied or revoked.
- iii) If the Council revokes this Order at any point prior to the end date given above, any works authorised by the Order which have been started but not completed may be completed within six months of the date of revocation. Works which have been started but not completed at the end date given above may also be completed within six months of that date. However, once the Order expires or is revoked, any works previously covered by the Order which have not been started, will no longer benefit from the consent granted through the Order.
- iv) If at the end of the term of the Order it is considered that it is operating effectively and does not give rise to undue harm, it will be renewed, and a longer term considered.
- v) As an Order confers listed building consent for specified works, a breach of the Order by carrying out works not authorised by the Order may lead to enforcement action.

9. Supplementary information

9.1 Advice on Planning and Installing Solar Equipment

9.1.1 The Order applies to listed buildings only. Borough's [Greening Supplementary Planning Document](#) contains further information on retrofitting works to non-listed buildings.

9.1.2 Planning permission will not be required for solar equipment consented under this Order on houses and flats, provided it complies with Schedule 2, Part 14, Class A of the General Permitted Development Order 2015 (as amended). For non-residential buildings, planning permission will not be required provided the requirements of Class J of the same part of the Order is complied with. For both classes installation of solar panels on curtilage listed buildings is not permitted development, and so planning permission will be required.

9.1.3 Notwithstanding the Order, solar equipment will require building regulation approval. It may be helpful to contact the Council's Building Control department or other approved inspectors before submitting details under the Order. Please note that a range of issues will need to be considered in order to ensure that the proposed work complies with the building regulations. These include:

- **Roof Structure:** There will be an additional loading on the roof and thought must be given as to how this will be supported. If the roof needs to be strengthened for structural reasons details of these works should also be approved under the Order. Strengthening works should be only what is necessary to support the panels, and if they involve any change in roof profile or removal of roof members such as joists or principal rafters it may be necessary to apply for Listed Building Consent.
- **Fire:** Electrical wiring of panels can cause fires due to poor connections. Precautions need to be taken to enable the direct isolation of the power generated by the panels. Means of escape needs to be considered for maintenance operatives. Minimum distances between panels need to be considered to maintain a clear escape route. Separation distance between panels need to be considered to prevent fire spread between the panels.
- **Access:** Consideration needs to be given to how access will be provided for maintenance purposes for CDM (health and safety purposes). Guardrails or other kinds of fall protection may be needed on flat roofs to prevent falls. Care will be provided in providing safe access to sloping roofs.

9.1.4 Further issues to bear in mind when planning the installation of solar equipment include: -

- **Efficiency and energy ratings:** solar equipment will be most worthwhile where it repays the financial investment of installing it and the carbon investment made in its manufacture. It may take a number of years to achieve this, and the most energy efficient equipment will do this most effectively.
- Regular maintenance and cleaning will ensure that solar equipment retains its efficiency. Safe access to the equipment will enable this and will be considered in relation to Building Control requirements.
- Solar equipment does not normally give rise to noise nuisance, but care in installing it will ensure there are not loose elements such as cables which could give rise to wind noises, and that associated equipment such as inverters are located internally.

9.1.5 Helpful advice from Historic England on planning the installation of solar equipment on historic buildings and its maintenance can be found in [‘Energy Efficiency and Historic Buildings Solar Electric \(Photovoltaics\)’](#) .

9.2 Design Advice

9.2.1 The Council intends to provide illustrated guidance to residents on good practice in designing a solar installations, and how to approach the details listed below.

- **Size:** There will normally be limits on the size of installation that can be supported on a domestic roof, although non-domestic roofs may be able to accommodate larger arrays. The installation will sit more comfortably on the building if it relates to the scale of the building. It may also helpfully relate to individual elements of the building, for instance where solar slates or tiles are used of dimensions which allow them to sit within the existing roof covering.
- **Colour:** Solar PV panels and solar thermal panels are generally dark grey/blue or black. This will normally be appropriate when used on slate roofs. Where there are other roofing materials, careful choice of a recessive or complementary colour will avoid an unnecessarily conspicuous installation.
- **Finish:** Non-reflective finishes for solar PV panels are available and if used where the panels can be seen will avoid drawing attention to the panels or creating a nuisance from glare.

- **Layout:** A carefully planned layout of the elements of the installation, such as individual PV panels, will be much more successful visually than a haphazard arrangement. A careful layout may often be a symmetrical one. The layout may have to take account of existing features such as rooflights, while other minor features such as aerials may need to be moved to accommodate the solar equipment.
- **Framing:** if solar equipment can be installed without a visible frame, this is likely to be more successful visually. However, where a frame is necessary, it will be less conspicuous if painted in a dark colour. Bare metal is likely to stand out harmfully.
- **Neighbourliness:** In terms of the effect on the wider townscape, it will be important to consider other solar installations in the vicinity. In some circumstances a design which complements them may be appropriate, for instance when adding to a group of buildings of identical or very similar design which already have consistently designed solar installation. This would apply not only to size and siting, but also the colour and framing of panels.
- **Associated equipment:** A tidy appearance will contribute to the success of the installation, with cables and related plant kept to a minimum externally or located discreetly.

9.2.2 The Campaign for the Protection of Rural England (CPRE) has produced advice on '[Ensuring Place-Responsive Design for Solar Photovoltaics on Buildings](#)'. This, while primarily focused on rural locations, addresses in some detail approaches which can secure a satisfactory and contextual design standard. These are summarised in a separate CPRE document, '[Solar Design Tips – Your 10 Point Guide](#)'. These considerations are also of relevance in the urban environment, particularly where there is some visibility of the roof which is to host the solar equipment.

9.3 Definitions

The Historic England advice signposted above contains a Glossary setting out the definitions of technical terms relating to solar technology.

Schedule 1: Grade II* buildings excluded from the Order: -

- a) The Dissenters' Chapel, Kensal Green Cemetery (List Entry Number: 1080628)
- b) Leighton House, 12 Holland Park Road W14 (List Entry Number: 1191541)
- c) Marks and Spencers, British Home Stores and The Roof Garden, 99-121, Kensington High Street W8 (formerly Derry and Toms Department Store) (List Entry Number: 1222781)
- d) Commonwealth Institute, Kensington High Street (now the Design Museum) List Entry Number: 1227441)
- e) The Royal Hospital North East Range, Royal Hospital Road SW3 (List Entry Number: 1226303)
- f) Crosby Hall, Cheyne Walk (List Entry Number: 1358160)

Reasons for the exclusion of certain buildings from the Order

- i) Grade I listed buildings are excluded from the Order as they are of exceptional special interest, and listed building consent for the installation of solar equipment is considered to be the more appropriate means to ensure that their special interest is preserved.
- ii) A number of Grade II* listed buildings are excluded from the Order. These are buildings of more than special interest where, by virtue of their specific design, wider visibility or association with Registered Park or Garden, it is considered that the installation of solar panels even as restricted by the conditions set out in section 3 may require specific assessment through the listed building consent process in order to ensure that their special interest is preserved.
- iii) Ecclesiastical buildings – churches - currently in use for ecclesiastical purposes are also excluded, as those operated by the exempt denominations are subject to their own systems of control over works, and so listed building consent is not required for the installation of solar panels in any event. Former ecclesiastical buildings no longer in ecclesiastical use are treated as non-ecclesiastical buildings for the purpose of this Order. This exemption does not apply to buildings associated with churches, such as vicarages or rectories, which are not used for worship.