

Western Elms Surgery

Energy Efficiency Statement and Sustainability Statement



to accompany planning application.

June 2017

Measures to conserve energy, in particular carbon dioxide emissions and maximise the use of energy efficiency techniques.

1. How has the development been designed to optimise the use of the energy from the sun and limit heat losses?

The building design includes that the fabric of the building will comply with or exceed current building regulations for fabric energy efficiency. The orientation of the building is fixed but windows are included on East and West sides of the building to encourage Solar gain. Solar Thermal panels to assist in Water heating for the extended building will be considered as part of the heating and water heating design.

2. How has the development been designed to optimise natural daylighting, energy efficient lighting, external lighting and natural ventilation?

The orientation of the building is fixed but windows are included on East and West elevations as well as roof light for the top floor. Natural daylight is extended to every room in the building. There is an access corridor on the first floor that will require artificial lighting. All lighting throughout the building will be energy efficient and all areas where motion sensors are practicable will include those smart controls. Natural ventilation is possible because of the inclusion of windows to both sides of the building and therefore facilitating cross ventilation. All rooms have openable windows.

3. How will the design of the building make efficient use of energy? (e.g. use of thermally massive materials, levels of insulation, energy efficient white goods and use of green/ brown roofs etc).

The design of the building is restricted because it is an extension. However, the building will be constructed predominantly with traditional materials such as masonry and slate roof. These are medium mass thermal materials and will assist energy retention. The building will be highly insulated to at least the current building regulations standards. Any white goods installed will be energy efficient grade A+. The roof materials will be reused as far as practicable and therefore less new materials are required. This is efficient and beneficial in terms of recycled materials and other associated benefits such as reduced transport.

4. Has local energy generation from renewables been considered as part of the scheme?

Yes, but because the project is an extension the change to benefit the whole building is impractical because of the extent of disruption to the existing facility. Solar thermal panels are being considered as part of the M and E design for the extension.

5. How have cycle storage facilities been considered?

The building already includes cycle storage. The surgery has prepared a Travel plan which encourages travel to work by walking and cycling. The proposal includes increasing the number of cycle spaces to 10.

6. How will the development incorporate the use of water saving devices to achieve a maximum consumption of 105 litres per person per day?

The proposal includes toilets and hand basins. The new sanitary ware will include water saving measures – whbs to be restricted to 3l/ min flow, wcs to have 4/3l dual flushes. It is not practicable to change the existing facility.

7. How will the development incorporate recycling rainwater and reduce the use of potable water?

This is an extension to an existing building. The roof and hardstanding areas will not be changed and the SW will discharge to existing systems. There will be no increase in SW drainage requirements as a result of this development.

8. Has the collection, treatment and re-use of grey water been considered? If so, how will these facilities be incorporated within the development? Materials

Yes, but the existing building is not being changed and so the introduction of grey water facilities would be highly disruptive and impractical.

9. How will the selected materials help retain local character, ensure long life and ensure a low environmental impact?

The materials being used will be similar to those on the existing building – this helps to retain local character. The roof material is being reused.

10. How has the development considered flooding and pollution?

Yes see Flood data below. The building is in Zone 1 and not likely to flood.

11. Has the design considered the use of sustainable drainage systems (SUDS) and how will they be incorporated within the development?

As noted above this is an extension and the SW drainage is not being changed.

12. How will the development minimise waste sent to landfill?

The contractor will work within a site waste management plan that stipulates that recycling will be min 80% of all waste.

13. How will the development make the maximum use of construction and demolition waste?

See item 12 above

14. How will the development make maximum use of re-used and recycled materials?

The roofing material will be partly recycled.

15. How will provision be made for the storage and recycling of waste for all users of the site?

The building already uses extensive recycling of waste as part of the normal use of the facility.

16. What measures have been incorporated to ensure that noise and light pollution will be minimised throughout the development?

The building is constructed with masonry and is completely detached. The use of the building is generally not noisy. The building will be lit in the hours of darkness and this will be low intensity energy efficient lighting that will cause no greater level of light pollution than the area generally or than the existing building.

17. What measures have been incorporated to reduce nitrogen oxide emissions and reduce the global warming potential of insulants?

All insulants will have Zero global warming potential. There are no boilers within the new extension so no appliances to produce NOx.

18. What measures have been incorporated to reduce the release of pollution into the atmosphere?

This is an extension to an existing building. Nothing in the normal use of the extension releases pollution.

19. How has the development been designed to maximise natural lighting, reduce the likelihood of noise complaints, incorporate private outdoor space and ensure the layout of the development can be easily adapted to meet the needs of future occupants?

See items 2 and 16 above. The outdoor space will be unchanged and is predominantly parking and circulation. The internal space can be adapted by the occupants because many of the partitions between rooms are not structurally important to the building as a whole.

20. What measures have been taken to ensure the construction of the site is managed in an environmentally and socially considerate manner, mitigating environmental impacts?

This is a modest extension. The development does not warrant formal registration with the Considerate Contractors scheme but the principles of the CCS will be a condition of the construction contract.

21. How has the development been designed to ensure people feel safe and secure?

The extension is accessed from the existing building and so all matters relating to access and security are unchanged. The building has been designed so that surveillance within the building is managed. There is a full-time reception area and the access point to first floor is integral to the building.

22. How have the wildlife habitats and natural features on and adjacent to the site been considered and how will they be retained, protected and enhanced?

The extension is to a part of the building where there is no soft landscape. All of the soft landscape areas are to be retained. The contractors will have no access to those parts of the site where trees and soft landscape will be retained.