

Aj Architects Ltd.



Re: Works to 60 Hartlebury Way, Charlton Kings, Cheltenham,
Glos GL52 6YB

To be read in conjunction with Architect's drawing numbered:

- 546.100 (A) Survey Site and Ground Floor Plan
- 546.110 (A) Survey First and Attic Floor Plans
- 546.120 (A) Survey Elevations 1 of 2
- 546.130 (A) Survey Elevations 2 of 2
- 546.200 (L) Proposed Site and Ground Floor Plan
- 546.210 (J) Proposed First and Attic Floor Plans
- 546.220 (J) Proposed Dependant Living Unit Floor Plan
- 546.230 (J) Proposed Rear and Side Elevations 1 of 2
- 546.240 (J) Proposed Front and Side Elevations 2 of 2
- 1:500 (B) Site plan
- 1:1250 OS Location Map

This application is for revised proposed works, following the approved planning application 17/ 00753/ FUL to form level ground floor accommodation for elderly relatives in a dependent living unit, a home office and general works to modernise this home.

This property is a detached modern house.

Sustainability design and construction measures

This proposed new extension will be built in accordance with the Cheltenham Climate Change SPD and the following Building Regulation Approved Documents relating directly to sustainability, energy performance and resources:

F - Ventilation

G - Sanitation, hot water safety and water efficiency

H - Drainage and waste disposal

L - Conservation of fuel & power

O – Overheating

S – Infrastructure for charging electric materials

Water efficiency: Reasonable provision will be made by the installation of fittings and appliances that use water efficiently for the prevention of undue consumption of water. All newly fitted appliances will be A rated.

Surface water drainage: Subject to suitable ground and subsoil conditions - A soak away will be provided to service surface water drainage collected from the roof of the extension/ dwelling. Hard standing surfaces will be constructed with a fall in order to drain water naturally away from the property. The above will be implemented in order to eliminate additional demand on the existing drainage infrastructure in the locality. Foul drainage will remain connected to the main sewer.

My client will look into using rainwater harvesting for flushing toilets, etc.

Conservation of fuel & power: The applicant will explore the feasibility of installing an AAA+ rated Air Source Heat Pump system to replace the existing hot water and central heating system. When the heating system is next upgraded the central heating system will be zoned and each zone will have an independent heat control valve. The walls, floor and roof will all be constructed using modern insulation which will meet all U-value requirements. All light fittings will be fitted with low voltage, high efficiency bulbs. Showers and taps will all be fitted with flow restrictors and the toilet cisterns will be dual flush in order to reduce water consumption. The applicant will also explore the feasibility of installing Solar photo voltaic technology in order to reduce the reliance on mains electricity

Waste disposal: Separate bins will continue to be utilised to aid the storage and collection of recyclable waste product.

Construction materials: All construction materials and internal fittings will be sourced locally in order to reduce transportation CO2 emissions

SPD Key Measures

- - Roof: The existing roof is a pitch and will be suitable for incorporating solar panels to the south facing pitch.

- - Windows: New windows and glazed doors will be high performance double or triple glazing designed specifically to reduce heat loss and maximise solar gain. The proposed lantern roof glass will have a UV protection film to limit solar gain issues.
- - Avoid overheating: Shutters and blackout blinds will be provided to prevent overheating.
- - Courtyard: Will be permeable finished with gravel. A Land drain will run into a soakaway to be approved by Building Control.
- - Renewable energy: The applicant will explore the feasibility of installing an AAA+ rated Air Source Heat Pump system to replace the existing hot water and central heating system. When the heating system is next upgraded the central heating system will be zoned and each zone will have an independent heat control valve. The applicant will also explore the feasibility of installing Solar photo voltaic technology in order to reduce the reliance on mains electricity. Part of the new proposed ground floor extension will be available for siting the required hardware.
- - Smart Energy: Smart technology and appliances will be incorporated where possible.
- - Water: Reasonable provision will be made by the installation of fittings and appliances that use water efficiently for the prevention of undue over consumption of water. All newly fitted appliances will be A rated.
- - Ventilation: Mechanical ventilation will be incorporated in order to improve internal air quality and energy efficient ventilation.
- - Waste: Separate bins will be utilised to aid the storage and collection of recyclable waste product.
- - Embodied carbon: The works have been designed so that all materials can be sourced locally in order to reduce transport related carbon emissions.
- - Flooding: Subject to suitable ground and subsoil conditions - A soak away will be provided to service surface water drainage collected from the roof of the extension/ dwelling. Hard standing surfaces will be constructed with a fall in order to drain water naturally away from the property.
- All measures will be taken throughout the construction process to reduce carbon emissions and waste product. Carbon reduction technologies will

be incorporated whenever the technology is available and in the best interest of the environment and health of the future owner/ occupier.