

Section B-B

## **ELECTRICAL WORKS:**

The existing cabling and fittings to the domestic electrical circuits and fire alarms/emergency light circuits are to be removed from the whole of the property. The surface mounted cable fittings are to be removed, disused recessed cabling cut off as necessary and the existing fabric made good to match the original fabric.

The whole of the property is to be rewired. Electrical works are to be carried out by a qualified installer in accordance with Building Regulation Approved Document P and comply with BS 7671. Number and location of socket outlets, light fittings, TV ariel points, telephone sockets, etc to client's requirements. Low energy light bulbs to be installed in 100% of all light fitting. All cabling and fittings are to be recessed into walls and ceilings and make good as necessary to match original fabric.

# **SMOKE & HEAT ALARMS:**

Install a Grade A Category LD2 fire detection and alarm system as described in BS 5839-6 (ground floor area over 200m2). Mains operated smoke alarms to BS EN 14604 to be installed with alarm points in circulation spaces within 7.5m of all habitable rooms to ground floor, first floor and second floor areas with additional smoke alarms in cellar, boiler room, inner hall, utility room and sitting room. Mains operated heat alarm to BS 5446-2 to be installed in kitchen area. Smoke and heat alarms to have stand-by power supply, be linked and wired to separate power supply in accordance with BS 5839-6:2004, all in accordance with Approved Document B1, 2019 edition incorporating 2020 amendments. The components of the fire alarm system within the building should be connected to a fire alarm control panel. Basic advice on the proper use and maintenance of the system is to be provided by the installer for use by the householder.

# **SANITARY FITTINGS:**

All existing sanitary fittings, wall tiling, etc. to be removed and make good as necessary. Install new sanitary fittings, to client's choice in locations shown on plans and connect to all services, drains, etc. The hot water supply to any fixed bath must be so designed and installed as to incorporate measures to ensure that the temperature of the water that can be delivered to that bath does not exceed 48°C.

# **VENTILATION:**

Extractor fans fitted with back draught shutters to be installed in new bathroom and shower rooms to give intermittent extract rates of 15 litres/second with 15 minute over-run. Fans to be ducted through external walls and set behind a period cast iron ventilation grills, manufactured by Cast Iron Air Brick Company (or similar), to match as near as possible the existing ventilation grill on the side two storey flat roof extension.

## DRAINAGE:

Remove existing drainage to be disused and make good as necessary. New foul drains to be 100 diameter pipes with flexible joints laid to 1:80 minimum gradient. Drains under buildings to be surrounded with 100 thick pea gravel or encased in 100 min concrete where crown of pipe is within 300 of the bottom of the slab. New inspection chambers in drive to be fitted with medium duty cover and frames. New 110 dia internal soil and vent pipe to be fitted with Durgo valve above flood level of highest fittings. Sanitary fittings to have anti-siphon bottle traps of the following size - sinks, bath and showers: 40 dia, wash basins: 32 dia. All pipework to be boxed in.

## CENTRAL HEATING SYSTEM:

The whole of the existing out dated central heating/hot water system, including cold water storage tanks in loft and hot water cylinder in bedroom, are to be removed and make good as necessary to match the original fabric.

The existing two year old gas boilers, located in the external boiler room, are to be connected to the new heating and hot water systems. A boiler interlock is to be installed.

All parts of the system including pipework and emitters are to be sized to allow the space heating system to operate effectively and in a manner that meets the heating needs of the dwelling, at a maximum flow temperature of 55°C or lower. Where it is not feasible to install a space heating system that can operate at this temperature, the space heating system should be designed to the lowest design temperature possible that will still meet the heating needs of the dwelling.

As the floor area is greater than 150m2 a minimum of two independently controlled heating circuits should be provided. System controls should be wired so that when there is no demand for space heating or hot water when the heating appliance and pump are switched off. Install new insulated hot cylinders to BS EN 12897 with cylinder thermostat, in location agreed with client.

Period style radiators, to client's choice, in locations agreed with the client to all areas of the building are to be fitted with thermostatic valves (except in room containing thermostat). Domestic hot water and space heating should each have separate time controls.

# SECONDARY HEATING:

to be a closed multifuel stove to client's choice located in the hall. Stove to be located on a non-combustible hearth extending 225 minimum infront of stove and at least 150 to sides. Build in airbrick at low level to external wall ducted through to external air to provide combustion air to stove, size in accordance with stove manufacturer's recommendations, all in accordance with part J the Building Regulations. Externally the airbrick is to be set behind a period cast iron ventilation grill, manufactured by Cast Iron Air Brick Company (or similar), to match as near as possible the existing ventilation grill on the side two storey flat roof extension. The existing flue is to be swept and fitted with a flexible chimney liner (316L/316L Grade) of the same diameter or equivalent cross-sectional area as that of the appliance flue outlet and should not be smaller than the size recommended by the appliance manufacturer. Flue liner to be fitted with cowl at top. Factory made metal chimney component system to have appropriate designation in accordance with BS EN1856-1:2003 to suit the appliance and types of fuel to be burnt and be installed in accordance with the relevant recommendations of BS EN15287-1:2007. A notice plate giving details of the hearth and flue in accordance with diagram 16 in part J of the Building Regulations is to be fixed in an unobtrusive but obvious position in the building. Full details of heating systems to be forwarded to Building Control for approval 21 days minimum prior to installation.



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Uley Dursley LANCASTER HOUSE, BRISTOL ROAD, THORNBURY BS35 3JA (Grade II Listed Building) - alterations and refurbishment Proposed construction details 2 of 3 A2 - Drg. No. 1694/12 1:50