

26 Carnarvon Road, BS6 7DU

Victorian semi

Solid brick wall construction

A large six bedroom Victorian semi-detached property with loft conversion. Whole house refurbishment, features include internal wall and underfloor insulation on ground floor.

Mechanical heat recovery system. Custom made double glazed sash windows, solar hot water and wood burning stove.



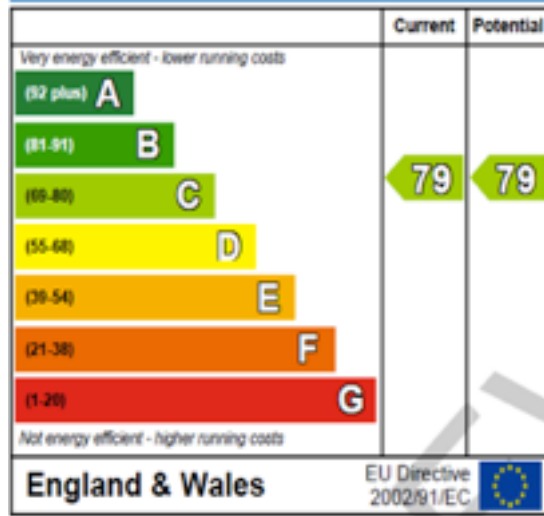
Measure	Contractors Details	Cost	Timescales	Disruption	Specific Materials	Notes
Internal wall insulation	Footprint Building 0117 317 9571	£14,500.00	Part of whole house refurbishment	High	70mm Quinnterm (over 151m2 of wall)	Only fitted on external walls
Ground floor insulation	Footprint Building www.footprintbuilding.co.uk	£730.00	1 Week	Low	Knauf Loft roll 44 insulation	The raised floor allow access from side and reduced disruption
Solar hot water & cylinder	Footprint Building www.footprintbuilding.co.uk	£6,155.00	Less than a week	Low	Vailiant	
Mechanical heat recovery system	Footprint Building www.footprintbuilding.co.uk	£7,500.00	1 Month	High	Villavent System Air	
Wood burning stove	Kindle Stoves 0845 505 0085	£3,500.00	1 Week	Medium	Clearview	
Double glazed sash windows	Footprint Building 0117 317 9571	£18,000.00	1 Week	High	17 new 24mm argon filled windows with FSC approved hardwood frames	Built to specification. Specification & ordering took a while. Mouldings designed to fit with existing style/neighbours
Low flush wc			1 Day	Low		
Gas condensing boiler	Footprint Building www.footprintbuilding.co.uk	£3,000.00	1 Day	Medium	24kw condensing boiler	

“This refurbishment is part of the Refit West scheme - so a lot of the information provided was through them.

I also got a lot of information from Footprint Building to help me make decisions.”

An Energy Performance Certificate (EPC)

provides an indication of the energy efficiency of a home, and the potential for improvement. It is the only part of the Home Information Pack (HIP) to be retained, and is still required in order to sell or rent a property.



Mechanical Ventilation Heat Recovery (MVHR)

MVHR differs from typical mechanical extract ventilation and passive stack ventilation as the fresh air supply is provided by the one mechanical source. Warm moist air is extracted via ducting, but before passing to the outside, the air passes through a heat exchanger in order to pre-heat the incoming fresh air being ducted to the 'dry rooms'.

MVHR heat recovery exchangers are very efficient (>90%), provide a highly controllable ventilation and reduce heating demand.

MVHR works best in conjunction with high air-tightness (<3m³/m²h @ 50Pa), therefore it is only effective where other measures, such as draught proofing have already been taken.

	Post work EPC figures	Pre work EPC figures
Energy Use	107kW/m ² per year	337kW/m ² per year
Carbon Dioxide emission	4 tonnes per year	14 tonnes per year
Lighting	£130 per year	£206 per year
Heating	£718 per year	£1922 per year
Hot Water	£103 per year	£187 per year

Chris has had both a Pre works and Post works EPC. This shows a real improvement in both energy use and carbon reduction.

Chris has focused on improving the energy efficiency of his house by reducing heat loss through insulation and air tightness.

All thermal insulation materials work on a single basic principle: heat moves from warmer to colder areas. Therefore on cold days, heat from inside a building seeks to get outside and on warmer days, the heat from outside the building seeks to get in. Insulation helps slow this process.

As the house is solid wall construction, simple cavity wall insulation is not feasible. Chris has included solid wall insulation throughout his home. He has also significantly improved his loft insulation which is a simple and cost effective measure to improve energy efficiency. House can lose up to a quarter of their heat through the roof.

The recommended depth is 270mm, which will typically cost around £250.00, and save up to £150.00 in bills.

Modern heating controls, such as a digital programmer and thermostatic radiator valves can significantly help cut bills, helping to only warm the spaces you use at times of occupation.

