# SUMMARY OF CONSTRUCTION DETAILS AND ASSUMPTIONS
## SAP, PART L1A ASSESSMENT

**SRS Partnership**
**www.srsspartnership.co.uk**

**Project: 4 St Augustines Road, London NW1**

**Stage: Planning Stage: 01/02/2013**

SRS Partnership

| **Targets:** | **CSH Level 4 (CSH 2010)**<br>**L1A Compliance (2010 Regulations)** |
|---|---|

| EXPOSED ELEMENTS | EXAMPLE SPECIFICATION | TARGET U-VALUE ($W/m^2K$) | Ass.r/Man./Other |
|---|---|---|---|
| FT1 - Ground Floor | 75mm concrete screed/ 150mm rigid insulation (thermal conductivity 0.022W/mK) + 50mm vertical edge insulation/ 250mm ground bearing reinforced concrete slab | 0.12 | SRS |
| FT2 - Upper Floor (Over unheated space) | TBC - Target U-value | 0.20 | Target |
| WT1 - External Walls | TBC - Target U-value | 0.20 | Target |
| WT2 - Sheltered Walls (Wall between flat and common areas) | TBC - Target U-value | 0.20 | Target |
| WT3 - Party Wall (Walls between habitable flats) | Fully filled cavity with sealed edges - default u-value | 0.00 | SRS |
| RT1 - Pitched Roofs (Insulated rafters) | Tiling/ batten space/ sarking felt/ 50mm well ventilated cavity/ 150mm timber rafters @450cc with 100mm rigid board insulation between rafters/ 50mm rigid board fixed to underside of rafters/ 12.5mm plasterboard | 0.15 | SRS |
| RT2 - Flat Roofs | Single ply membrane/ 150mm ridgid board insulation/ 18mm timber ply/ 300mm roof joists/ 12.5mm plasterboard | 0.15 | SRS |
| RT3 - Exposed Ceiling (2nd Floor) | Single ply membrane/ 150mm ridgid board insulation/ 18mm timber ply/ 300mm roof joists/ 12.5mm plasterboard | 0.15 | SRS |
| Entrance Doors | **Individual Flat Entrance Doors:** Insulated core timber faced doors - non perforated base plate lintel - target U-value | 1.60 | Target |
| | **Glazed Doors:** Metal **d**ouble glazed with low-e soft coat glazing, 16mm+ air gap - 32mm thermal break - argon filled - non perforated base plate lintel - target whole unit U-value | 1.20 | Target |
| Windows | Metal double glazed with low-e soft coat glazing, 16mm+ air gap - argon filled - 32mm thermal break - non perforated base plate lintel - target whole unit U-value | 1.40 | Target |
| Rooflights | uPVC double glazed with low-e soft coat glazing, 16mm+ air gap - argon filled - target whole unit U-value | 1.40 | Target |
| **DETAILING** | | | |
| Thermal Bridging | Accredited Construction Details (ACD) - Thermal bridging calculations undertaken for each unit type using ACD Ψ values | ACD | |
| Thermal Mass Parameter | Assumed RC frame with stud infill/ internal stud walls: User Defined TMP - Low ($100kJm^2K$) | $100kJm^2K$ | |
| Air Permeability | Air pressure test - air permeability no greater than $5m^3/hm^2$ (@50pa) - All units to be tested | $5m^3/hm^2$ (@50pa) | |
| **OPERATING SYSTEMS** | | | |
| Electricity Tarrif | Standard | | |
| Ventilation | Mechanical whole house ventilation (MEV) - Kitchen + 1 = 0.2W/l/s - Kitchen + 2 = 0.18W/l/s - Approved installer (Based on Titon CME 1 Q Plus) | | |
| Main Heating System | Gas condensing combination boiler, 89%efficient (Sedbuk 2009) with weather compensator, interlock and delayed start thermostat, radiators as emitters. NB: NOx emissions to be less than 40mg/kWh for CSH (Based on Vaillant Ecotec) | 89% (Sedbuk 2009) | Target |

| | | | |
|---|---|---|---|
| Heating Controls | Time and temperature zone controls | | |
| Secondary Heating | None | | |
| Water Heating | From main gas boiler - 210 litres hot water cylinder with heat loss no greater than 1.85kWh/day | 1.85kWh/day | |
| Water Usage | Less than 90lites/person per day for CSH purposes - Calculations by CSH assessor | | |
| Renewable Energy | Photovoltaic Panels (PV) - 10kWp located on flat and pitched roofs in South orientation with total output directed to common areas and back to grid - collectors @ 30 degree tilt with none or very little overshading - see SAP summary for unit breakdown. | 10kWp | Target |
| Lighting | 100% low energy | | |
| **OTHER ASSUMPTIONS** | | | |
| Communal Space | Assumed communal areas unheated | | |