



Case Study: SAP Calculations

Developer: Morris Homes Ltd
Location: Vista, Peterborough
Architect: Barnett North
Sector: Mixed Use Development



Background:

Vista is the second of the exemplar Carbon Challenge sites being delivered by the Homes and Communities Agency (HCA). The Carbon Challenge programme aims to deliver communities which embody best practice in sustainable design, construction and operation. They will act as test beds for the construction industry and inform future policy-making.

The 7ha South Bank development will incorporate 295 dwellings of mixed types, green spaces and additional mixed use elements. Every dwelling on site must meet the highest level of the Code for Sustainable Homes (CSH): Level 6, which is 'zero carbon' (with allowable solutions).

Brief:

Stroma is supporting the Developer in a number of capacities. We are the CSH Assessor, SAP Assessor and CEEQUAL Assessor for the project, and are also acting as Carbon Challenge Inspector, whose role is to ensure ongoing compliance with the Carbon Challenge Standard Brief.

Services Provided:

A prototype plot, named Plot M, was developed to inform the delivery of the rest of the development. It employs a number of sustainable and renewable technologies including solar thermal, solar PV, biomass boilers, rainwater harvesting, and an MVHR (mechanical ventilation and heat recovery) system.

Stroma has also installed a Post-Occupancy Evaluation (POE) system on Plot M which will monitor CO₂ levels, humidity and temperature, and examine how the occupants use the building. This will enable the team to benchmark how design performance and in-use performance compare.

Phase 1 (houses) is now complete with the final specification being traditional construction, triple glazing, MVHR, rainwater harvesting and highly efficient gas boilers with solar thermal panels. Further phases will consider the use of photovoltaic panels instead of solar thermal.