

# Tanworth Lane Dementia and Extra Care Facility



## The Brief

Via the OJEU bidding process, One Creative Environments Ltd. (One) was successful in securing the commission of the new build dementia and extra care facility on behalf of Solihull Metropolitan Borough Council.

### Project name:

Tanworth Lane Dementia and Extra Care Facility

### Location:

Shirley, West Midlands

### Value:

£7.5M new build

### Services:

Building Services (M&E)  
Civil & Structural Engineering

One's commission was to deliver RIBA work stages 2 to 4 for the concept, detailed design (Tender Design) and construction stage monitoring duties for the new build 2-storey 60 bed care home for the provision of residential and/or nursing care to older people with dementia.

The client's brief required the project to be delivered to BIM level 2, for which One was able to fully comply with as part of our standard workflow and internal QA systems.



# Project Overview

The new build care home in Shirley will replace an existing facility in the borough and provide the highest level of care to residents to allow them to live as independently as possible, regardless of their age or condition. The home will provide 60 apartments, bistro/café, central seating area, multi-purpose room, laundry and administration offices.

With the client strongly focused on quality of care, sustainability and long-term investment to ensure an energy efficient building was delivered, One's Mechanical & Electrical (M&E) team explored a range of options and provided the best advice for long term payback solutions.

One designed a system that incorporates a number of renewable technologies, solar PV and ground source heat pump, as well as LED lighting and comprehensive lighting controls. Additionally, a high level of building control and automation will be provided to measure and optimise the energy efficiency which will include: energy sub-meter for gas, electrical and heat services, plant control and monitoring for all central plant along with fault indication and reporting.

The client also benefitted from One's experience in the care sector, specifically in dementia care, with the team providing timely and valuable advice on best practice and Stirling Guide requirements.



“ One's Mechanical and Electrical Engineering team delivered our vision for a long-term energy efficient building as well as providing expert advice relating to the requirements of the dementia care sector. ”

Antonios Marinou, Architect, Solihull Metropolitan Borough Council

Full M & E services were provided by One which included tender evaluation, site inspection and handover duties. In detail, services include:

- Incoming statutory supplies.
- External site services incl. lighting and watering points.
- Electrical distribution and small power installation.
- Fire alarm and smoke control systems.
- ICT services.
- Access control & CCTV.
- Nurse call and accessible alarm.
- Lighting and emergency lighting.
- Lightning protection.
- Domestic piped services.
- Heating and cooling (Underfloor heating).
- Ventilation, including commercial kitchen extract.
- Communal heating system (Heat Interface Units).
- Ground Source heat pump and solar PV.

## The Benefits

- **Delivering the client's vision** – One's M&E team maintained the client's vision and goal and delivered a long-term energy efficient building with the best payback solutions for renewable energy.
- **Expert advice provided** – The client benefitted from One's extensive Mechanical and Electrical Engineering (M & E) knowledge as well as their experience in the dementia care sector with valuable advice on best practice and Stirling Guide requirements.
- **A high level of building control and automation** – This will measure and optimise the ongoing energy efficiency of the building.
- **Building Information Modelling** – As part of One's standard workflow and internal QA systems, the project met the client's brief of delivering to BIM Level 2.



For further information  
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