



# Education & Healthcare Projects

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This document contains a selection of recent and current projects carried out by Norstead



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[www.metnor.co.uk](http://www.metnor.co.uk)



# Norstead Projects

## Grand Avenue Primary School, Tolworth, Surrey

£1m

New two storey school to be built in phases within an existing facility allowing continued use by the school and demolition of the old buildings. The services to the new school included:-

- Biomass boiler installation, buffer vessel & flue
- Gas boilers and water heaters
- Underfloor heating and LST radiators
- Boosted Cold water and cold water down services
- Hot water services
- AC installation to the ICT room
- BMS control system
- Ventilation systems
- Lightning protection
- LV distribution system and small power
- Lighting & lighting control system
- External lighting
- Structured cabling installation
- Security, Fire Alarm and Class Change systems
- Door Access and Gate control



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# Norstead Projects

## Guildford Clinic *Guildford, Surrey*

£3.6m

To design, supply and install all mechanical and electrical services associated with a new clinic fit-out of an existing building.

### Works comprised of :

- Plantrooms
- Operating theatres
- Recovery area
- Day bed rooms
- Recliner rooms
- Nurse stations
- Dental rooms
- Consultant rooms
- General secretarial rooms
- Reception area
- Atrium
- General circulation corridors
- Kitchen facilities

### Systems installed :

- Ventilation system
- VRF system
- LTHW system
- Domestic services / sanitaryware
- BMS
- Medical gases
- General power and lighting systems
- Generator package
- Fire alarm system
- Access and intruder systems
- Data and telephone systems
- TV system
- External lighting



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# Norstead Projects

## Knights Academy *Bromley*

£2.7m

### Mechanical

To supply install all required major plant requirements associated with the Mechanical Ventilation & Pipework along with the Public Health Services within the building. The heating system is complimented with a natural cooling ability through the use of strategically positioned Passivent Roof Terminals and BMS controlled actuators.

The installation included the supply of an off site manufactured Package Plantroom containing Gas Boilers, Pressurisation Unit, Gas Fired Calorifier & CT & VT Pump sets.

### Electrical

The electrical installation included the supply and installation of all lighting & power requirements throughout the project. The project also included for a Security System which included CCTV, Access Control and Intruder Alarm. Further installations included the Building Fire Alarm System, Hard of Hearing Induction Loops and Disabled Call Alarm Systems.

A comprehensive Data installation was installed which included 3no. Comms Rooms distributing to all areas of the building, this installation was further enhanced with a WLAN installation installed into the ETAP Booms in the majority of the Class Rooms.



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# Norstead Projects

## Linthorpe Medical Centre *Middlesbrough*

£2m

Norstead were responsible for the M & E installation within this 5 storey Medical Centre including basement. The installation consisted of :-

### Electrical Services :

Apart from general / emergency lighting and power, Norstead provided :-

- Security system
- Nurse call system
- Operating lights
- Surgeons panel
- Back-up generator system
- Fire alarm system

### Mechanical Services :

- Ventilation and air conditioning
- Heating systems & gas Services
- Domestic and public health services
- Medical gasses Installation
- Automatic controls (BMS)
- Sanitaryware



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## RMBI Scarborough Court *Cramlington*

£750k

Norstead were responsible for the supply and installation of the Mechanical Services on this 55 bedroom residential care home located in Cramlington. The buildings primary heating is generated by Underground Heat pumps and is distributed throughout the building via an under floor heating system with individual room control. The domestic hot water is produced via solar panels located on the roof with a top up systems incorporating the Underground Heat pumps and a gas fired water heater.

All the toilets in the building are served by reclaimed rain water captured from the roof before being gravity fed throughout the building.

The building uses four AHU's located in the roof void to supply tempered fresh air which is distributed via series of ductwork. The extract rate is varied depending upon occupation levels and toilet usage to reduce power consumption.

A central BMS system with a front end computer control's and monitors the Mechanical plant.



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# Norstead Projects

## Heatherview Care Home *Crowborough, East Sussex*

£1.3m

This four storey Care Home includes 74no. Bedrooms c/w "Private" En-suites, also located in Bedroom floors are Lounges and Dining Areas and specialist Rooms such as Assisted W.C.'s and Bathrooms along with Sluice and Drug Storage Rooms. Whilst the Main Entrance Floor to the Building has the Kitchen, Laundry, Café. Staff Admin Areas, Village Green Area, Theatre Room and Hairdressing Salon.



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# Norstead Projects

## Harmony Care Home *Wellingborough*

£720k

We provided a full Mechanical and Electrical D&B installation to this 66 Bed residential care home in Northamptonshire consisting:

### Mechanically

A domestic gas fired hot and cold water services to the 66 En-suite Bedrooms, Assisted Bathrooms, WC's, Drug Stores, Sluice Rooms, Dining Room Serveries and Kitchens etc. The above services were also provided to the in-house Laundry along with a boosted softened cold water service.

A tempered supply and return heat recovery air ventilation system was also installed along with dedicated DX cooling to dayrooms and drug stores.

### Electrically

Power, lighting, heating and data were provided to all 66 bedrooms and staff work areas along with nurse call alarm, fire alarm systems, door security and CCTV



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# Norstead Projects

## Winn Studios *Newcastle upon Tyne*

£2.5m

The multi storey development comprises of the following accommodation:-  
 Ground Floor Entrance to lift lobby and staircase together with car and cycle parking, electrical sub-station and switch room, launderette & ancillary rooms with student accommodation providing 396 bedrooms, as follows:

- |                          |                             |  |
|--------------------------|-----------------------------|--|
| 4 No. Four bed clusters  | 10 No. Premium Studio Rooms | 2 No. Accessible studios (inc in eight bed clusters) |
| 28 No. Six bed clusters  | 22 No. Five bed clusters    |  |
| 4 No. Eight bed clusters | 1 No. Nine bed clusters     |  |
| 2 No. Ten bed clusters   | 8 No. Single studio rooms   |  |

A full M & E design, supply, install, test and commission role was undertaken by Norstead. Scope of services included but not limited to:-

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>▪ LV Switchgear and distribution system</li> <li>▪ Generator</li> <li>▪ Electric Meter Data Collection System</li> <li>▪ Fire System</li> <li>▪ Access Control System</li> <li>▪ CCTV System</li> <li>▪ Digital Terrestrial TV System</li> <li>▪ Emergency Voice Communication</li> </ul> | <ul style="list-style-type: none"> <li>▪ Disabled Alarms</li> <li>▪ Lighting and General Power</li> <li>▪ Voice and Data</li> <li>▪ Hot and Cold Water System</li> <li>▪ Solar Heat Source</li> <li>▪ Ventilation System</li> <li>▪ Public Health / Sanitaryware</li> <li>▪ Dry Riser System</li> </ul> |
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