



# Mount Vernon Cancer Centre, Middlesex

## Project overview

In early 2010 the Mount Vernon Cancer Centre, which is part of the East and North Hertfordshire NHS Trust, began work on a project to install the first CyberKnife® in an NHS hospital. This groundbreaking technology from American company Accuray Inc. uses real time tracking to deliver precisely targeted high-dose radiation to tumours. The unique nature of this project demanded the highest levels of radiation shielding. Calder Industrial Materials, the European leaders in lead radiation shielding, provided a comprehensive, turnkey solution.

### Duration:

A challenging 8 months from the signing of contracts in February 2010 to the first patient through the door.

### Constraints:

The project's overall budget of £3.8m meant that suppliers and contractors would have to deliver exceptional value for money and work to a very tight programme.

### Project controllers:

Healthcare specialists AD Architects worked closely with the East & North Hertfordshire NHS Trust to select suitable vendors and manage the delivery of the CyberKnife®.



**CALDER**

| Safety critical radiation shielding - Chevron Rail System

# A turnkey solution

The unique ability of Calder to design, manufacture and install the lead shielding at Mount Vernon, all under the supervision of a Calder Project Manager, helped the overall project achieve its targeted completion date. The new CyberKnife® is expected to help hundreds of new patients each year.



Shielded door



CyberKnife® unit at the Mount Vernon Cancer Centre

## The CyberKnife® bunker

AD Architects realised that in order to build a welcoming and safe facility, while minimising the impact on the existing hospital structure, lead radiation shielding was the most effective material to use. Calder were asked to provide suitable shielding for a safety bunker housing the new equipment and treatment rooms.

## 102 tonnes of lead

Calder's Chevron Rail System was the ideal choice for the Mount Vernon installation where, dependant upon the location within the room, the thickness of lead varied between 30mm to 300mm. Their Project Team worked closely with Mount Vernon's Radiation Protection Adviser and working to his specifications Calder utilised all of its knowledge and experience to efficiently and effectively install the lead to ensure the total elimination of 'shine paths'. An important criteria for the bunker was to provide the right specification of a heavy shielded door. Calder supplied a 30mm swing design lead door weighing over 1.5 tonnes.

The Calder installation team took just 8 weeks to complete the fit out of the CyberKnife® bunker.

“ Calder provided a professional, proactive and efficient service. They completed on time and within specification to our high standards. ”

Jim Haigh, Director Healthcare & QA, AD Architects, Hertford



Call today for more details.

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