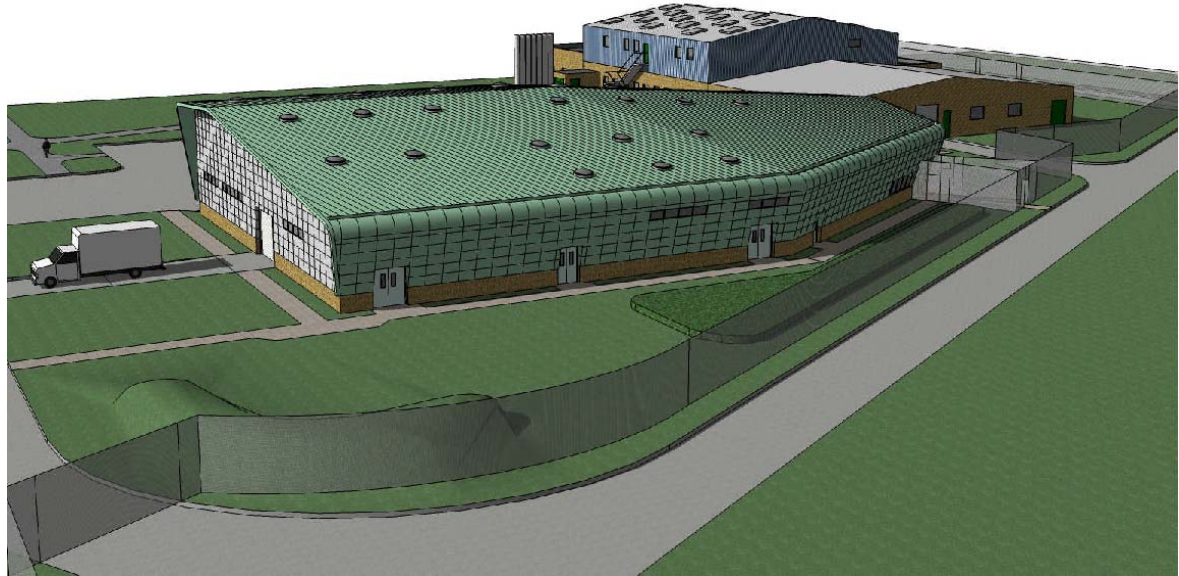


# AWE Burghfield Project Leo

**Client :**  
AWE plc

**Location :**  
Burghfield, Berkshire

**Date :**  
2008 - 2010



The Non Metallics Interim Solution Package 2 (Project Leo) was awarded to BAM Nuttall Limited in September 2008 as a Design and Build contract to provide a new manufacturing facility at the Atomic Weapons Establishment in Burghfield.

The Project comprises the construction of the manufacturing building and surrounding infrastructure. The building is a steel portal frame on mass concrete pad foundations. The steel portal frame was galvanized at the contractor's expense to eliminate the potential for damage to the specified paint coatings during transportation, erection and subsequent operations and to also mitigate the need to undertake paint repairs involving work at height. Within the building a system of storm, foul and trade waste pipework was installed prior to the casting of a high tolerance concrete floor slab. The steelwork frame was clad with an aluminium standing seam roof system complete with man safe access and the walls were clad with Corus Rainscreen.

BAM Nuttall and the Client's team held early value engineering sessions to review various aspects of the building and together agreed savings of £345,000 to AWE plc without compromising the overall requirements of the building end user. In addition to the cost saving the construction programme was reduced by seven weeks.

Within the building BAM Nuttall designed the Electrical and Mechanical systems for the building including HV and LV electrical systems, lighting and emergency lighting, fire alarm and VESDA systems, oxygen depletion system, argon gas supplies, UPS back up, HVAC, steam heating, Process and environmental chillers, hot and cold water systems, compressed air, all controlled by a TREND building management system.

The internal fit out works included all aspects from internal wall construction, floor finishings (carpets, paint and tiles), emergency showers, toilets, showers, office and workshops, paint finishes to walls, external and internal glazing, external and internal doors and miscellaneous sanitary fittings and furnishings.

BAM Nuttall Ltd  
St James House, Knoll Road,  
Camberley, Surrey. GU15 3XW

Tel: 01276 63484  
E-mail: [headoffice@bamnuttall.co.uk](mailto:headoffice@bamnuttall.co.uk)  
[www.bamnuttall.co.uk](http://www.bamnuttall.co.uk)

Outside the building a Trade Waste collection and transfer facility was installed incorporating a complex of large underground tanks, valves and pumps to enable trade waste to be safely stored, tested and disposed off as required.

To the rear of the building a HV transformer station was installed to provide power to the building and adjacent to this a process slab on which the process and environmental chillers and argon gas tanks were installed.

Around the perimeter of the building, block paving footways were provided as well as access roads, hardstandings and perimeter fencing. All storm water drainage was piped to a Sustainable drainage SWALE and pond.

Upon completion of the installation all of the building systems were subjected to detailed and rigorous commissioning and performance testing. BAM Nuttall appointed BSRIA to undertake the commissioning testing upon its behalf to ensure that a full independent check was undertaken.

Throughout the contract a commercial event register was maintained which captured over 500 items which had a potential impact on the cost and performance of the project. Working closely with the Client and his team, all of these were successfully managed resulting in no overall delay to the project. The works were handed over 2 days ahead of the completion date but resulted in savings to the Client in excess of £420,000.

The Project was registered for the Considerate Constructors scheme and received scores of 35, 36 and 37 in three site visits.

During the construction phase the contract was subject to numerous site inspections and audits. It was consistently in the top five projects across the AWE sites for its performance on Health & Safety, Quality & Environment and Project & Programme Management.

Project Leo was awarded a DREAM Excellent score of 76% for the full project, the first such award at AWE.