

CONFIDENTIAL PROJECT LIVINGSTON, SCOTLAND

Project Overview

Project	Vaccines Manufacturing
Location	Livingston Scotland
Application	Vaccine Development and Manufacture
Walls	M100 Modular wall panels double and single sided in bespoke width to suit HVAC and process requirements 100-200mm.
Ceilings	MWOC Modular Walk on Ceiling planks with factory formed cut outs for HEPA filters and lights
Doors	Flush glazed and solid with access control (Single, Leaf & Half, Double)
Glazing	Flush Glazed Vision Panels
Miscellaneous	Coving with preformed corners to wall and ceiling interface. Integrated RA ducts and service penetrations.
Performance	Non shedding, crevice free and impervious, suitable for VHP decontamination. Recessed base for flush finished coved flooring, pre-formed corners. Non-progressive installation with integrated structure to support up to 0.9kN/m ²

Background

The client needed a fast track solution to replace an existing cleanroom facility to meet their new process requirements. Speed to market was the key driver without compromising future flexibility, whilst ensuring compliance with their rigorous cleanroom standards and cleaning regimes. In addition, the existing building structure could not be used to support any of the services supplying the cleanrooms or cleanroom envelope and the cleanroom ceiling had to be walk on allowing access for maintenance.

Brief

BYES required an offsite modular solution that could simply be put together onsite with no construction activity, assemble only. The pre modularisation had to include factory formed access ways and cutouts for services and equipment as well as having built in low-level extract ducts within the modular walls. The modular structure also had to support the distributed services and walk on ceiling. All cleanroom finishes also have to be modularised and manufactured off site ready to install.

Solution

MIDDAS worked closely with the BYES Design Team and the end user to provide a virtual modal in BIM which included all services, fitted equipment and user interfaces throughout the complex suite of cleanrooms and support areas. From here MIDDAS modularised the complete facility including walls, ceilings and the integrated structural steel work required to support the services. Where possible, the modules were kept to standard dimensions however, to ensure a truly modular solution all non-standard size elements were also manufactured off site ready to assemble. The M100 wall system incorporated the return air ducts and provided the framework to support the MIDDAS beams supporting the walk on ceiling and services.



“MIDDAS rose to the challenge of providing a truly modular offsite solution manufactured in the UK which enabled us to achieve a very challenging programme. The pre-engineered modules enabled services and equipment to be installed without onsite construction again significantly reducing site durations compared with tradition construction methods.”

Alan Miller
Head of Operations
Bouygues E&S Contracting UK Limited