

Greater Manchester Major Trauma Centre, Salford Royal

Complete	Area	Client	Architect
2023	Salford, UK	Northern Care Alliance NHS Foundation Trust via DAY Architectural and BAM Construction	DAY Architectural

The £68 million Greater Manchester Major Trauma Centre is part of Salford Royal Hospital. The facility will receive major trauma patients from across the county and is also the hub site for high risk emergency general surgery. Across the six floors are five emergency theatres, including a RAPTOR theatre, inpatient beds, resuscitation area, diagnostic department with CT and MRI scanners and a rooftop helipad. An 'excellent' rating under BREEAM New Construction 2014 was targeted for the scheme.



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Sandy Brown was commissioned to provide acoustic consultancy from Stage 2 to completion for the Greater Manchester Major Trauma Centre project. Within the acoustic design, aspects considered were:

- compliance with local authority guidelines for noise emission from the hospital, particularly in relation to plant equipment as there is a significant amount of building services equipment associated with the development
- development of the building envelope in regard to controlling noise ingress
- control of internal sound insulation particularly as there were challenging adjacencies such as plant rooms close to noise sensitive areas
- design advice on acoustic finishes
- compliant design in line with Health Technical Memorandum 08-01: Acoustics
- attainment of acoustic credits under BREEAM for healthcare buildings.

The building had a rooftop helipad which required guidance on vibration transfer to the structure of the building to be provided to the specialist sub-contractor. Additionally, 3D environmental noise modelling was carried out to review the effect of noise from helicopters on the surrounding area.

Sound insulation between spaces was a key consideration. The strategy developed was compliant with Health Technical Memorandum 08-01 and suitably controlled noise transfer from the large plant floors to vertically adjacent noise sensitive areas, including operating theatres.

Within the double height entrance space, room acoustic control was crucial with the development of modelling software to ensure that reverberation was suitably controlled for the use of the space.