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Royal Bolton Hospital

Same Day Emergency Care (SDEC) unit

 **Client:** Bolton NHS Foundation Trust

 **Sector:** Healthcare


 **Location:** Bolton, Greater Manchester


The Brief

Royal Bolton Hospital required a new Same Day Emergency Care (SDEC) unit to relieve pressure on its busy A&E department and provide patients with rapid access to assessment and treatment. The project needed to balance clinical efficiency with patient comfort, all while being delivered at speed during the Covid-19 pandemic.


A major challenge was the live hospital environment, which demanded strict infection-control protocols and minimal disruption to ongoing services. The design also had to fit onto the exact footprint of the former Ambulatory Care space, requiring precise planning to maximise the limited area.


Elite Systems was appointed to deliver a bespoke turnkey modular solution, from design through to internal fit-out, enabling the Trust to achieve its goals quickly and safely.

 **Project:** New Same Day Emergency Care (SDEC) Unit

 **Location:** Bolton, Greater Manchester

 **Project Cost:** £1,086,000.00

 **Timeline:** Delivered in 20 weeks from order to completion

 **Key Features:** Bespoke healthcare layout including trolley bays, nurse bases, assessment rooms, and compliant welfare facilities – all delivered safely during the Covid-19 pandemic.

The Main Features

Inside

- ✓ **Trolley Bay Provision-**
10 individual trolley bays, each approx. 6–7 m², fitted with medical service panels, bedhead trunking, integral power/data outlets, and privacy screening. Designed for rapid patient assessment and observation
- ✓ **Assessment Rooms-**
Two large assessment suites (14 m²) and seven dedicated 11 m² consultation rooms, each finished with wipe-clean wall linings, safety flooring, integrated basins, and clinical storage. These spaces allow flexible use for both diagnostic and treatment activities.
- ✓ **Nurse Bases-**
Two strategically located nurse stations (13 m² and 7 m²), providing clear visibility across bays and rapid access to patient areas. Each includes IT terminals, secure medicine storage, and integrated staff communications systems.
- ✓ **Specialist Fit-Out-**
Clinical-grade vinyl safety flooring throughout; wall protection panels in high-traffic areas; integral nurse call systems; and mechanical ventilation designed to meet HTM (Health Technical Memoranda) performance standards.



Outside

- ✓ **Durable Modular Construction-**
Bespoke healthcare-grade modular units with plastisol-coated steel cladding, chosen for resilience, ease of cleaning, and low maintenance. Designed to withstand high-frequency hospital use and minimise lifecycle costs.
- ✓ **Efficient Use of Estate-**
The SDEC unit was precisely designed to replace the footprint of the old Ambulatory Care block, allowing new facilities without expanding the estate. Foundations and service connections were carefully coordinated with existing hospital infrastructure.
- ✓ **Accessible Entrances-**
All entry points were constructed to Part M standards, with level thresholds, wide doors, and automatic opening for smooth patient transfer, including trolley and wheelchair access.
- ✓ **Service Integration-**
External connections for medical gases, electrical distribution, and water supply were coordinated into the building shell, enabling rapid commissioning on delivery.



Challenges

The project presented numerous challenges, which we addressed with determination and creativity. Some of the key obstacles included:



Covid-19 Pandemic Delivery

The new SDEC unit was delivered within the grounds of a busy acute hospital, which meant construction activities had to be carefully managed to avoid disrupting essential services. Secure segregation zones, strict access protocols, and clear communication with hospital estates ensured that patients and staff remained safe throughout. All deliveries, noise-generating works, and site activities were coordinated to minimise operational impact while maintaining a sterile, functioning hospital environment.



Estate Restrictions

The hospital estate is heavily developed, leaving limited opportunities for expansion. The new SDEC unit therefore had to occupy the exact footprint of the existing Ambulatory Care building. This required precise planning and design to maximise the available floor area while accommodating a complex healthcare layout, including multiple trolley bays, assessment rooms, and staff facilities, without compromising clinical workflows or accessibility standards.



Live Hospital Environment

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Healthcare Fit-Out Standards

Unlike general modular buildings, the SDEC unit required strict adherence to NHS guidelines for healthcare environments. Every surface had to be infection resistant, all fittings specified for clinical use, and services integrated to support medical gases, nurse call systems, and specialised utilities. Coordinating these technical requirements within a modular system demanded close collaboration with specialist subcontractors, ensuring the unit would meet rigorous clinical standards from day one.



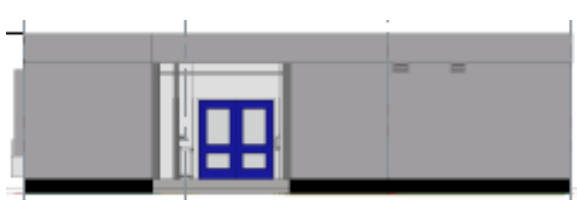
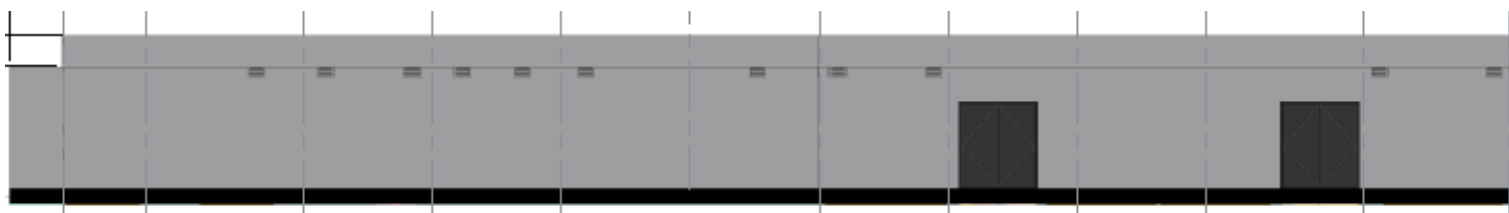
Speed of Delivery

The hospital faced urgent demand for additional emergency care capacity, making delivery time critical. The project had to be designed, manufactured, and installed in just 20 weeks. Achieving this required streamlined coordination across design, manufacturing, and site teams, with no margin for delay. Off-site construction was key to meeting the tight timeline, with modules built in parallel to foundation works, drastically reducing programme length.



Patient Comfort & Accessibility

While the primary focus was clinical efficiency, the building also had to ensure a positive patient experience. Careful consideration was given to accessibility, circulation, and welfare provision, with all WCs and access points designed to meet Part M requirements. Acoustic treatments and visual design measures were introduced to create a calm, welcoming environment, supporting patient dignity and comfort even in a high-turnover clinical setting.



From Concept to Completion

The design process progressed from concept layouts into detailed floor plans and elevations, refined through consultation with clinicians and technical teams. Internal zoning separated trolley bays, assessment rooms, nurse bases, and utility areas to streamline workflows and ensure patient safety.

Detailed specifications addressed infection control, acoustic performance, accessibility, and mechanical/electrical service integration. Iterative revisions ensured full compliance with NHS guidance, while modular construction methods enabled rapid off-site manufacture, minimising disruption to the live hospital environment.



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Developing our Estate is a key priority for the next five years. We want to ensure that we make the best possible use of the space that we have, and to use it to make a positive contribution to our local communities.

– Spokesperson,
Bolton NHS Foundation Trust

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The Results

Rapid Relief, Reliable Results

The **Same Day Emergency Care (SDEC)** unit at Royal Bolton Hospital was delivered in just **20 weeks**, providing much-needed capacity to relieve pressure on A&E. The new modular building offers **10 trolley bays, dedicated assessment rooms, and two nurse bases**, enabling faster triage and more efficient patient pathways. By separating assessment from admissions, the hospital has **reduced waiting times** and created **smoother processes** for both patients and staff.

The facility is fully compliant with **NHS standards**, including **Part M-accessible** welfare spaces and **infection-resistant finishes** that ensure safe daily operation. Staff now benefit from clear visibility across patient areas and well-equipped support spaces, while patients experience a **modern, comfortable, and dignified environment**.

Designed with durability and flexibility in mind, the unit will support the Trust's long-term estate strategy, offering **robust construction** that can adapt to **future healthcare needs**.

Key outcomes include:

- Faster patient triage and treatment, easing A&E congestion
- High-quality modular unit delivered in just 20 weeks
- Fully compliant, patient-centred clinical environment
- Durable and adaptable design supporting long-term estate strategy