

CASE STUDY

## Colchester Elective Orthopaedic Centre

A state-of-the-art Elective Orthopaedic Centre, opened at Colchester Hospital, was built by MTX Contracts to enhance orthopaedic care for East Suffolk and North Essex NHS Foundation Trust (ESNEFT).

The Essex and Suffolk Elective Orthopaedic Centre (ESEOC), housed in the Dame Clare Marx Building, is one of the largest Elective Orthopaedic Centres in Europe and the largest MMC development of its kind in the UK. The three-storey 10,900m<sup>2</sup> facility was built by MTX in five phases, using a total of 293 offsite-manufactured structural steel units.



**Being able to engage with MTX early through the NHS SBS Modular Buildings Framework allowed for significant programme improvements over a traditional build approach, saving an estimated one year from project conception to completion."**

**Tim Tompkins**

Director of Cost Management, Castons

## THE CHALLENGE

ESNEFT required a new Elective Orthopaedic Centre to dramatically increase regional capacity for joint replacement and complex orthopaedic surgery.

The facility needed to deliver:

- Up to 72 beds and six laminar flow theatres, with expansion potential to eight theatres
- An increase of 10,000+ additional procedures annually
- Improved patient experience through single rooms, reduced waiting times and fewer cancellations
- Delivery on a live acute hospital site, requiring demolition, new infrastructure, a loop road and ambulance access.

The scheme had to be delivered within strict budget parameters, while navigating a constrained live hospital environment that required the demolition of multiple existing buildings, creation of a new loop road for ambulances, essential drainage diversions and integration into existing high-voltage and steam systems. The Trust also needed confidence that the building could be expanded in future and required support to develop a viable business case that could secure national funding approval.

To maintain continuity of patient care, the development had to be designed for phased construction. The project therefore demanded a procurement route, design strategy and construction methodology that could balance budget control, clinical quality, futureproofing and minimal service disruption.





## THE SOLUTION

MTX were appointed at RIBA Stage 2 via the NHS Shared Business Services (NHS SBS) Modular Buildings Framework Agreement, providing a compliant procurement route with early contractor engagement.

The project was awarded as a PCSA contract, enabling MTX to progress the design from Stage 2 to Stage 4 and to support the Trust's Full Business Case.

Working within budget, MTX led value engineering and presented alternative layouts, relocating theatres to the ground floor and allowing future expansion to eight theatres. The design optimised clinical flow with mirrored theatres, dedicated sterile routes, and a 50:50 mix of single and four-bed rooms with natural light.

Planning challenges were addressed with a basement plantroom to reduce rooftop massing, and enabling works were carefully phased to maintain hospital services, including demolitions, drainage diversion, a new loop road, and integration with steam and HV infrastructure.

The building was delivered using a hybrid MMC approach, combining offsite modules with traditional fit-out to maximise efficiency and minimise disruption.

## THE RESULT

The Essex and Suffolk Elective Orthopaedic Centre is now one of Europe's largest orthopaedic centres and the largest MMC healthcare project of its kind in the UK.

The facility houses eight new custom designed HTM / HBN-compliant, ultra-clean orthopaedic operating theatres and space for up to seventy-two beds – more than half of those in single occupancy rooms with ensuite bathrooms. It also includes a reception area for greeting patients with dedicated drive-up drop off and pick up area, meeting and training rooms, X-ray facilities, and ancillary areas including a physical therapy room and gym.

It is expected to change the lives of up to 10,500 patients each year, reducing waiting times and transforming care for those in Suffolk and Essex who need planned surgery on bones, joints and muscles.

By utilising the NHS SBS procurement route and MTX's hybrid MMC methodology, ESNEFT has received a future-ready, clinically optimised facility that increases elective capacity, improves patient experience and enhances operational efficiency for decades to come.

## SUMMARY

- 8 Operating Theatres
- 72 beds
- 1 x-ray
- 11,000m<sup>2</sup>
- £53.8m build cost
- 609 days on site

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It is incredible, when you consider that MTX started on site in April 2022, and now here we are at the end of 2024 with this superb complex building which will be one of the biggest and best facilities of its kind in Europe.”

**David Cohen**

Senior Capital Project Manager  
East Suffolk and North Essex NHS Foundation Trust

**To find out more about MTX, visit [www.mtx.co.uk](http://www.mtx.co.uk). To learn about NHS SBS' framework agreement, contact [sbs.hello@nhs.net](mailto:sbs.hello@nhs.net)**