



BUILDING FOR THE FUTURE WITH THE NHP

Building the future, today.

Architectural Wallsz
Modular Healthcare Solutions

After announcing delays to the NHP, efficient delivery has never been more important

Understanding the New Hospital Programme

The New Hospital Programme (NHP) was initiated in October 2020 with the ambitious goal of delivering 40 new hospitals by 2030 but a recent announcement extended the completion of some projects by a decade.

There will now be four phases of construction with the final wave commencing between 2035 and 2039. This adjustment means nearly half of the proposed hospital projects will be delayed into the late 2030s, as the revised plan prioritises hospitals constructed with reinforced autoclaved aerated concrete (RAAC). Construction for these facilities will start between 2027 and 2029.

Our prefabricated solutions are the ideal solution for these projects and in this eBook, we will show you why.

-30%

Adaptive construction methods can reduce project timelines by up to 30%.

70/30

Traditional construction allocates 30% of costs to materials and 70% to labour. Adaptive constructed flips this ratio to 70% materials and 30% labour.

-CO₂

By manufacturing components off-site reduces CO₂ emissions and overall environmental impact.



New facilities can open weeks or months ahead of schedule to meet patient demands and significantly reduce the environmental impact of construction activities.

Let's start at the beginning: Who are Architectural Wallsz

Prefabrication Construction Specialists

We're experts in prefab healthcare interior design, installation and maintenance. Our modular systems can be integrated into existing layouts to improve staff performance, patient care and sustainability, or used to build an entirely new project from scratch.

Architectural Wallsz was first established in 2014, when Managing Director, Ian, discovered DIRTT, a partitions company in Calgary. Impressed by their offerings, vision and values, he saw an opportunity to bring their innovative approach to the UK. This led to a partnership with DIRTT and the creation of Architectural Wallsz (AWallsz).

The name, Architectural Wallsz, adopted a term widely recognised in Canada, in comparison to 'demountable partitions' which is a term more recognisable in the UK. Adopting this name showcases our partnership with DIRTT. This international collaboration enhances our capability to offer versatile and adaptable solutions, blending the best practices from both regions.

AWallsz is proud to have played a crucial role in the rapid installation of negative-pressure patient rooms following the outbreak of Covid-19. This experience revealed to us the profound impacts that healthcare can face, and we were inspired to become part of the change, committed to building better infrastructure to address future challenges and the ever-evolving needs of healthcare.

We continue our dedication to the healthcare sector, providing solutions from Segregation and Isolation Pods to Integrated Sink Units, Bed Head Walls and Nurses' Stations. We are proud to align our expertise in modular construction with the objectives of the New Hospital Programme (NHP) as we support the transformation of healthcare infrastructure across the UK.



The future of healthcare construction: Why prefabrication is the only way forward for the NHP

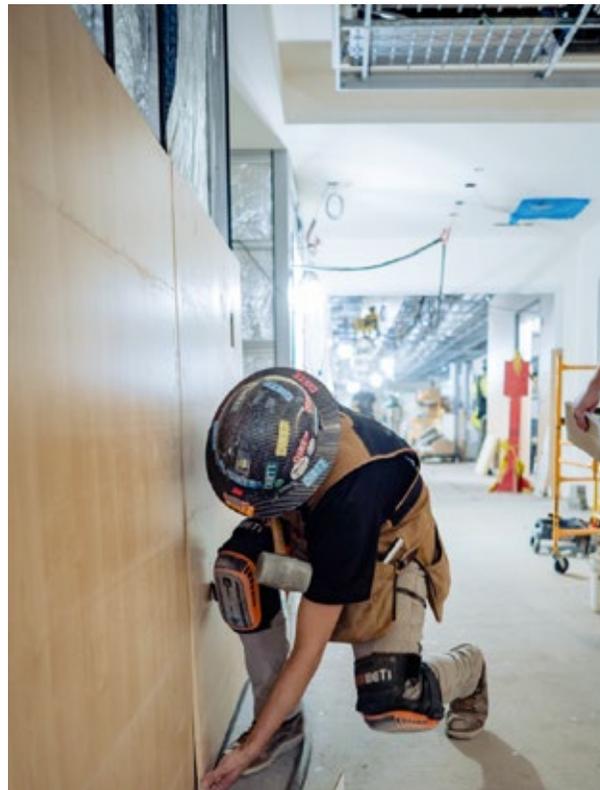
By Ian Strangward, MD, Architectural Wallsz

The UK's New Hospital Programme (NHP) is one of the most ambitious healthcare infrastructure projects in decades and promised 40 new hospitals by 2030. But as we all know, promises on paper don't build hospitals - solutions do.

With the recent announcement that many of these projects will face delays stretching into the late 2030s, the question isn't just how these hospitals will be delivered but how they can be built efficiently, sustainably and future-proofed against the inevitable shifts in technology and patient care demands that continuously evolve.

For us, that's where prefabrication comes in as a proven method already reshaping how healthcare spaces are designed and delivered. Prefabricated construction is about cutting down waste, inefficiency and the endless variables that bog down traditional construction projects. Did you know projects using prefabricated methods can reduce build times by up to 50%? That doesn't just mean less time to delivery either, it means lower

costs, better patient outcomes and improved operational efficiency. When you're talking about hospitals, every day saved in construction is a day closer to delivering vital care.



Speed isn't the only metric that matters, though. Sustainability is also a baseline requirement. The construction industry accounts for around 40% of global CO2 emissions and traditional building methods are a significant part of the problem.

"When you're talking about hospitals, every day saved in construction is a day closer to delivering vital care."

Prefabrication, by contrast, generates up to 90% less waste, significantly reduces carbon emissions and optimises resource efficiency from start to finish. It's not just about what we build but how we build it and the environmental footprint we leave behind.

'The NHP requires a construction approach that's not just fit for the next few years but for the next few decades...'

At Architectural Wallsz, we see the NHP as an opportunity to set new standards in healthcare construction. Prefabricated interiors offer flexibility that traditional builds cannot match. Walls should no longer be static barriers but adaptable systems that can evolve with the changing needs of healthcare delivery. As medical technologies advance and patient care models shift, these spaces can be reconfigured without the disruption, cost or environmental impact associated with traditional full-scale renovations.

That's why the NHP isn't just about building for today - it's about creating spaces that can adapt to future technologies and changing healthcare demands. Prefabrication allows us to deliver high-quality, flexible interiors faster, more sustainably and with long-term cost efficiency. This isn't just the smart way to build; it's the responsible way.

The NHP's success hinges on more than just political will and funding. It requires a construction approach that's fit for purpose and not just for the next few years but for the next few decades. Prefabrication delivers on that promise and at Architectural Wallsz, we're ready to make it happen.

MORE ABOUT IAN

Ian Strangward, Managing Director of Architectural Wallsz, and the appointed President of the Finishes and Interiors Sector (FIS), as of 7 November 2024, offers expertise of 30 years in the construction Industry.

With more than 30 years of experience in the construction industry, Ian has been an active member of the FIS Board of Directors for three years prior to his presidency. In his inaugural address, he emphasised his commitment to working collaboratively with fellow Board members to ensure that FIS remains member-led and continues to make a positive impact on both individual members and the sector as a whole.

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We deliver on the NHP criteria: Our solutions hit all the requirements.

Sustainable, Adaptable and Futureproof Healthcare Solutions

Sustainability is a fundamental principle of the NHP. Our products feature a low carbon footprint and utilise a sustainable prefabrication process that aligns with the NHP objectives. By reducing build times and trades on site, cutting Day 1 waste to a minimum and reusing the same durable materials Day 2, this approach fulfils the net-zero healthcare requirements the NHS is aiming for.

Another requirement is data-driven capabilities. Our solutions are technology-friendly and integrate with the latest digital health systems. Our prefabricated Isolation Pods are a prime example as built-in air filtration systems can help track and control infections.

That's not all though, our adaptable products are futureproof, can be easily updated to integrate new technologies and address all of the NHP's requirements from Modern Methods of Construction [MMC] to standardised design.

ENHANCED CLINICAL STRATEGY

Our solutions are designed to meet the evolving needs of healthcare environments by providing adaptable spaces that can be easily reconfigured for various healthcare purposes. These flexible spaces enable hospitals to enhance clinical strategies and deliver more patient-centric care while maintaining operational efficiency.

The NHP's requirements: At the core of what we do

Accelerated, Standardised and Sustainable Construction for NHP

ACCELERATED DEVELOPMENT APPROACH

Drastically reducing on-site build times is a priority for the NHP and our prefabricated construction enables faster delivery of healthcare projects. Our modular solutions are built offsite, meaning the build site can be prepared in advance and ready for the fitted solutions to be installed. This allows for an accelerated timeline without compromising quality.

STANDARDISED DESIGN

Utilising the benefits of standardisation, we are able to provide solutions, like Bathroom Pods, Headwalls, and Serviced Partition Systems, that allow for replication while still enabling customisation to meet specific facility needs. This approach enables cost reductions, increases efficiency, and ensures that hospitals consistently comply with safety and building standards.

MODERN METHODS OF CONSTRUCTION

We specialise in MMC, specifically modular and prefabricated techniques that are both efficient and sustainable. By building offsite, we reduce waste, lower environmental impact and enable quick installations. All our solutions are customisable and adaptable, ready to meet the evolving demands of modern medicine and technology.

The future of healthcare spaces: Designing for adaptability, sustainability & patient-centric care

By Anna Cooper, Senior Designer, Architectural Wallsz

The healthcare landscape is seeing a significant transformation driven by advancements in technology, evolving patient expectations and a deeper understanding of the healing environment's impact on patient outcomes. As we look to the future, the design of healthcare spaces must adapt to these changes to provide efficient, effective and compassionate care.

One of the most significant trends shaping the future of healthcare design is the rise of Community Diagnostic Centres (CDCs). These centres aim to bring diagnostic services closer to communities by enhancing accessibility and early detection of health issues. By decentralising services traditionally housed within hospitals, CDCs alleviate pressure on larger healthcare facilities and provide patients with more convenient care options.

Incorporating flexibility into healthcare design is also paramount. Spaces that can be easily reconfigured to accommodate different medical functions or patient needs ensure

healthcare practices evolve. This adaptability not only maximises the utility of physical spaces but also supports the integration of emerging technologies and treatment



Sustainability is another critical consideration. Designing healthcare facilities with sustainable materials and energy-efficient systems reduces environmental impact and promotes a healing environment for patients. Features such as

enhanced natural lighting, improved air quality through upgraded filter systems and the inclusion of indoor greenery have been shown to improve patient outcomes and staff wellbeing.

"As we look to the future, the design of healthcare spaces must adapt to provide efficient, effective, and compassionate care."

“Digital designs reduce project costs, accelerate construction timelines & ensure consistency across multiple hospital builds...”

Another key aspect of the future of healthcare design is Digitisation, not just of the patient care processes and technologies, but of the infrastructure housing them.

More emphasis is being given, now than ever, on smart building for the future, innovation and digital empowerment.

We need to be looking to optimise the intelligence of our building techniques and of the buildings themselves.

AWallsz does this through smart design, creating a digital copy of every component manufactured to develop the hospital's interior.

Digital software with client interface at the forefront of its design means that users are in control of their built environment, fully generated and signed off, virtually, before any materials are cut and sent to site.

Intelligent, multi-functional interiors are the means that the NHP require to deliver on their promise of 40 new high performing, innovative hospitals. Adopting the approach that “the wall needn't be just a wall” generates opportunity for re-useable, reconfigurable walls with integrated technologies, services and functions to be the way hospitals, built today, can stay relevant for the lifetime of the building, encouraging technological advancements and evolution of patient care.

The future of healthcare spaces lies in their ability to adapt to changing needs, integrate new technologies and provide patient-centric care. By embracing these principles, we can design facilities that meet the demands of today while anticipating the challenges of tomorrow.

MORE ABOUT ANNA

Anna is a specialist in the development of adaptable, future-focused healthcare interiors and also a committee member for Fit-Out Futures, a network launched by the Finishes and Interiors Sector (FIS) to drive change and innovation within the fit-out industry. Through this initiative, Anna supports emerging talent and professionals from diverse backgrounds and helps to shape a more inclusive, modern and responsible industry.

Anna is also dedicated to maintaining an up-to-date working knowledge of the standards and regulations attributed to interior design. She regularly attends seminars, CPDs and working group meetings to keep up with changes to legislation and collaborate with other professionals in the industry.



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Our solutions align with hospital 2.0

Smart Technology and Flexible Layouts



DIGITAL CAPABILITIES FROM WAYFINDING TO INTEGRATED MEDIA SYSTEMS

Our modular systems are designed to integrate smart technology and adapt to new advancements, which can be seamlessly integrated into the walls before arriving to site. Enabling rapid onsite installation ensures hospitals are ready to incorporate the latest advancements in patient care and operational efficiency.

[Media walls >](#)



OPTIMISED HOSPITAL LAYOUTS

Our tools and modular systems enable hospitals to optimise flexible layouts and allow adjacent rooms to be reconfigured when needed. Our ICE visualisation tool allows us to design, review and optimise spaces before any materials are cut and address any issues before work begins for a more efficient, sustainable build.

Our solutions align with hospital 2.0

Modular Room Designs and Facility Management



SINGLE BED ROOMS

Our modular, single-bed rooms can be fitted with Integrated Medical Headwalls and Footwalls, or combined to create independently ventilated pods, quickly and efficiently. All our solutions support infection prevention and control with easy-to-clean surfaces, airflow and filtration, and flush-mounted integral services to efficiently maintain cleanliness and hygiene.

[Isolation Pods >](#)



FACILITIES MANAGEMENT FOR THE FUTURE

Ensuring a digital record of all materials and processes, known as "The Golden Thread," facilitates ease of maintenance and accurately documents modifications and enhancements. This digital record enables adaptability, repairs, and maintenance of spaces and materials.

Robust materials and designs that support future facility management also contribute towards low maintenance, reducing costs and promoting sustainable solutions.

Our solutions align with hospital 2.0

Prioritising Staff Wellbeing and Standardisation



IMPROVED STAFF WELFARE

We provide adaptable and comfortable spaces for staff, as well as patients. We help create calmer, welfare-focused healthcare spaces to improve staff and patient wellbeing. Our solutions feature high acoustic performances, glazing for increased natural light and positive distraction, as well as custom graphics, biophilia, and integrated screens and monitors.

[Study pods >](#)



STANDARDISATION ACROSS THE BOARD

Utilising standardised components in healthcare environments ensures compatibility, streamlines procurement, and enhances the efficiency of installation and maintenance. This leads to more predictable outcomes, reduced downtime, and improved patient care continuity. Our products, like Headwalls, Footwalls and Isolation Facilities, are all designed with these benefits in mind, using standardised services and components, whilst achieving the flexibility necessary for the future of healthcare building.

Our solutions align with hospital 2.0

Eco-friendly Approach and Adapting to the Future



SUSTAINABILITY & NET ZERO GOAL

Our solutions align with the NHS' sustainability targets by incorporating energy-efficient, low-carbon construction methods that minimise the environmental impact of healthcare infrastructure. By focusing on sustainable materials and eco-friendly processes, we're helping hospitals achieve net-zero.



FUTUREPROOFING & MAINTENANCE

Our solutions provide hospitals with futureproof designs that allow flexibility when required. New rooms or technology can be added to ensure patient care isn't reduced due to inadequate facilities. Removable panels enable ease of access into the wall cavity, simplifying maintenance and allowing effortless future alterations, ensuring the system remains adaptable and futureproof.

Royal Shrewsbury Hospital

Infection Control with Minimal Disruption

Royal Shrewsbury Hospital approached Architectural Wallsz to enhance its healthcare infrastructure rapidly while ensuring high standards of infection control and minimal disruption to ongoing operations. With our innovative approach, we aimed to create a sustainable, efficient, and adaptable solution that addressed the hospital's immediate needs and future demands.

The Challenge

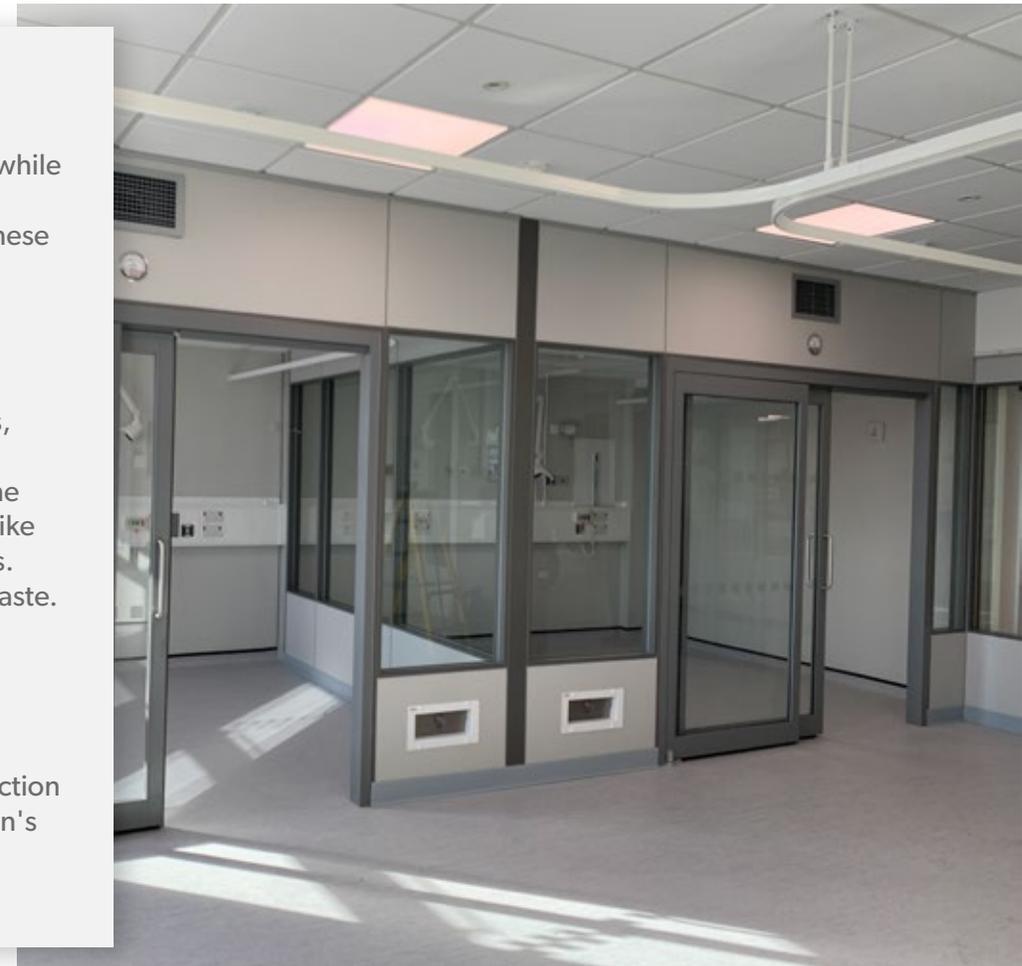
Royal Shrewsbury Hospital faced the urgent need to expand its healthcare infrastructure while maintaining high standards of infection control and minimising disruption to ongoing operations. Architectural Wallsz stepped in to provide an innovative approach that met these demanding requirements.

The Solution

We provided modular, prefabricated wall systems, including four negative pressure pods, central and front walls with individual doors. The turn-key fit-out included new ceilings, lighting fixtures, sink modules, flooring, and medical gases, completed in just 12 days. The negative pressure pods improved infection prevention for level 2 patients, with features like easy-to-clean surfaces and HEPA filtration ensuring compliance with healthcare standards. The sustainable modular system allows for reconfiguration with minimal disruption and waste.

The Outcome

The system was installed swiftly and efficiently, minimising disruption to operations. The project prevented 3,880 kilograms of plasterboard waste. The installation enhanced infection control and offered flexibility for future reconfigurations. Hospital staff praised the solution's adaptability and efficiency, significantly improving the treatment environment for level 2 patients.



Stoke Mandeville Hospital

Enhancing Patient Safety with Pressurised Rooms

One notable project that showcases the impact of adaptive construction is the installation of segregation and isolation pods at Stoke Mandeville Hospital. Engaged by Sodexo, we were tasked with supplying and installing isolation pods to enhance the hospital's ability to manage infectious diseases efficiently.

The Challenge

The primary challenge was to provide a solution that could be rapidly deployed without compromising the hospital's strict hygiene and safety standards. The need for negative pressure environments and HEPA filtration systems to control airborne pathogens was critical, particularly during the COVID-19 pandemic.

The Solution

Architectural Wallsz developed modular isolation pods equipped with built-in air filtration, plumbing and negative pressure systems. These pods were designed for rapid assembly and adhered to the UK Government's Health Technical Memoranda (HTM) guidance. The reconfigurable nature of these pods allowed the hospital to adapt to varying patient loads and infection control needs without lengthy downtimes.

The Outcome

The adaptive pods significantly improved patient and staff safety by reducing the spread of infections. The modular design also meant the hospital could quickly reconfigure spaces to respond to future health crises or changes in healthcare delivery needs.



Alexandra Hospital

Staff Wellbeing Space

With the growing emphasis on staff wellbeing, Architectural Wallsz was approached by Alexandra Hospital to design a space that enhances the wellbeing of its staff. The goal was to create an environment that fosters relaxation and comfort, allowing healthcare professionals to decompress and rejuvenate.

The Challenge

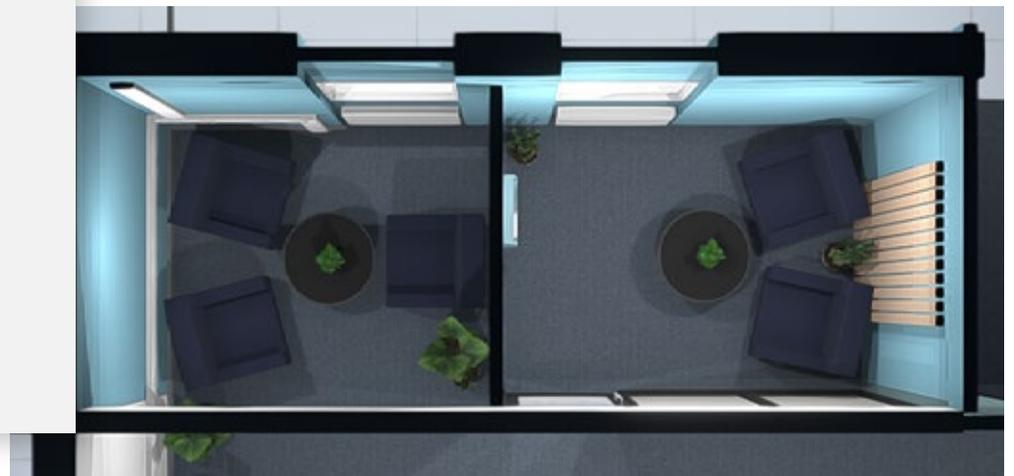
The staff of Alexandra Hospital needed a dedicated space that promoted relaxation and provided a quiet sanctuary. This space was essential to ensure that the wellbeing of the hospital's staff remained at a high standard, supporting their mental and physical health.

The Solution

In response to this need, we designed and installed a wellbeing pod for the staff to use. The high-acoustic double-glazed pod ensures a quiet and peaceful environment, free from external noise. The private, tranquil space allows healthcare professionals to relax and recharge, ensuring their wellbeing is prioritised. The frosted manifestation on the glazed doors further enhances privacy.

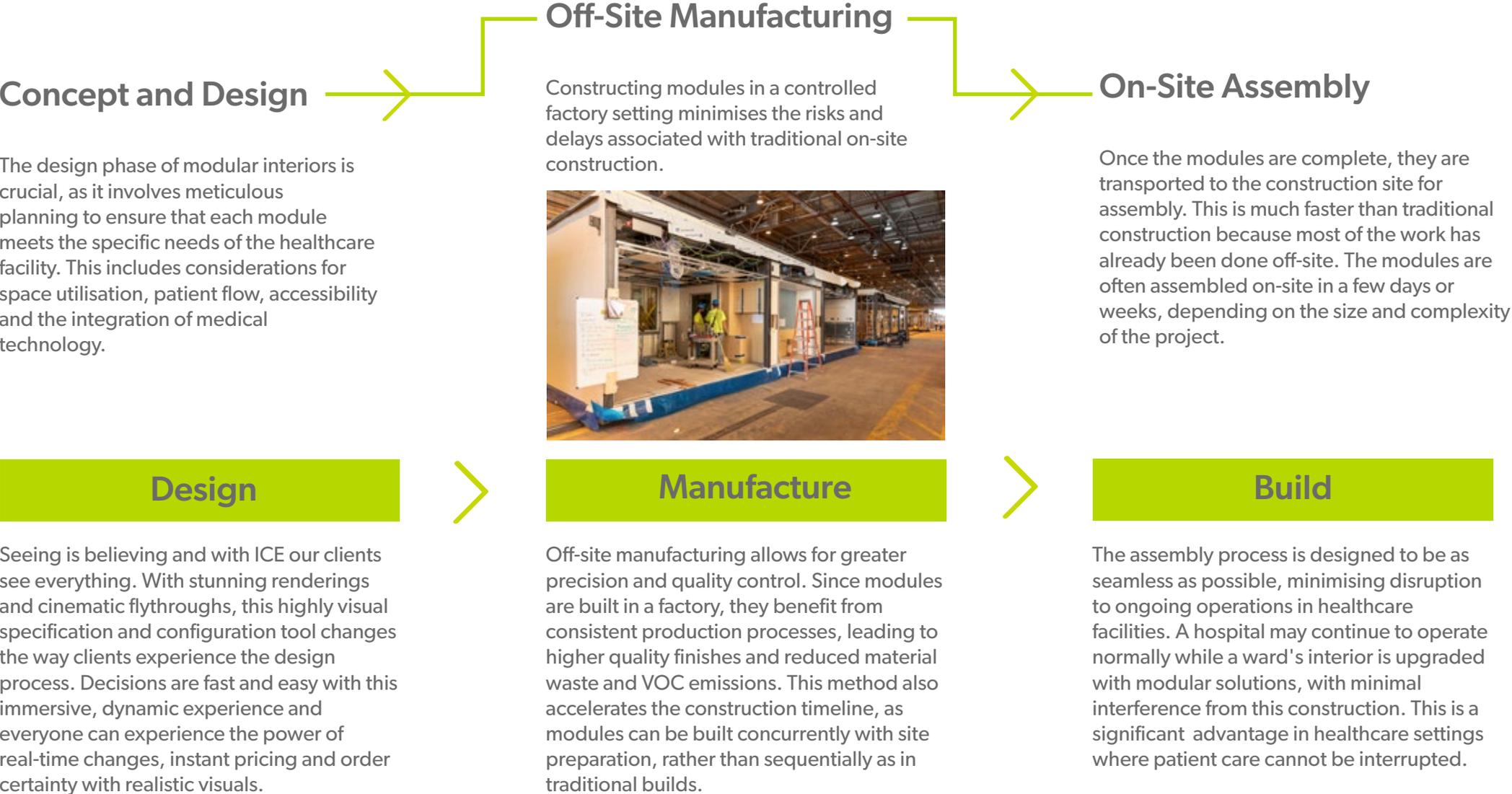
The Outcome

The space now offers exceptional privacy and comfort, providing a versatile environment where staff can use the pod for various activities, such as breaks, meditation, or even personal discussions. The high-acoustic properties, combined with the frosted manifestation, ensure a tranquil and private setting, allowing healthcare professionals to recharge, and ensuring priority of staff wellbeing.



How an Architectural Wallsz project unfolds

Seamless Planning to Construction



The economics of our solutions

Cost Effective Modular Construction Innovations

In an industry where financial efficiency is as crucial as operational effectiveness, the economic benefits of adaptive construction are increasingly hard to ignore.



Reduced Construction Costs

Our precision manufacturing not only reduces lifetime material costs but also minimises the need for expensive on-site labour. The shorter construction timelines associated with modular interiors offer significant project savings, and improve revenue regeneration by getting the facility up and running much sooner.

Optimised Resource Allocation

Adaptive construction flips the traditional cost structure by reducing the reliance on multiple trades and extensive build programmes, and ensuring project funds are allocated to the durable, reusable materials used throughout the lifetime of the building.

Lower Maintenance & Costs

Our solutions require lower maintenance and operational costs because the modular components used in adaptive construction are typically designed for durability and ease of maintenance. We incorporate energy-efficient systems and sustainable materials too.

Future-Proofing and Value Retention

Not only can modular components be easily reconfigured, expanded or relocated but the use of durable, high-quality materials means these facilities also retain their value over time, while traditional buildings require expensive renovations to remain functional.

Swift Delivery & Reduced Downtime

Traditional construction projects can be highly disruptive and often close parts of a facility. The swift and efficient nature of modular construction means modifications can be made with minimal impact on daily operations.

Working with the future of construction: We're proud to have an innovation-focused culture of employee development

Employee development and innovation are a huge part of Architectural Wallsz - our commitment to learning and professional growth is a core part of everything we do.

Staying up to date with the latest trends is crucial to fostering innovation. That's why we attend events and conferences to network with like-minded individuals who want to build a better healthcare infrastructure.

In addition to attending these events, our involvement with organisations like Fit-Out Futures and Finishes & Interiors Sector (FIS) demonstrates our dedication to nurturing talent and encouraging innovation within the construction industry. This commitment is further exemplified by our support of Pennie, our marketing apprentice, who is thriving under our guidance and contributing

Investments in software such as ICE enable our designers to push their innovative approach to design, allowing for a seamless design process that enhances both our working culture and project delivery.

Additionally, we facilitate team collaboration, between those on and off-site. This is enhanced through regular communication meetings where the team discuss successes, projects and upcoming opportunities. Moreover, the encouragement of open communication allows colleagues to share ideas and receive constructive feedback.

MEET OUR APPRENTICE, PENNIE

Pennie's journey with Architectural Wallsz is part of our commitment to nurturing talent. Since joining as a marketing apprentice in 2024, Pennie has been developing invaluable communication skills as well as an understanding of the healthcare industry and its needs.

"Working at Architectural Wallsz is a rewarding experience. The team is incredibly supportive and I feel like I'm making a real impact on the future of healthcare.

"It's been a privilege to work alongside industry leaders and learn from some of the best minds in healthcare spaces and adaptable, prefab construction. I'm looking forward to my future with Architectural Wallsz."

  pennie@awallsz.com



The team behind the transformation of better healthcare infrastructure

Harnessing Expertise and Teamwork to Improve Healthcare Spaces

MEET OUR FINANCE DIRECTOR ANGELA.

Angela oversees the financial strategy and ensures the efficient allocation of resources to support the delivery of innovative prefabricated healthcare solutions.

✉ angela@awallsz.com



MEET OUR DESIGNER LAUREN.

Lauren develops innovative and functional designs to enhance our healthcare environments, ensuring each project meets the highest standards of quality and aesthetics.

✉ lauren@awallsz.com



MEET OUR BD MANAGER, SAM.

Sam drives growth and expansion by identifying new opportunities and fostering partnerships to enhance our healthcare infrastructure projects.

✉ sam@awallsz.com



MEET OUR PROJECT COORDINATOR, SARAH.

Sarah ensures smooth coordination across our healthcare projects, managing resources and schedules to guarantee efficient project completion.

✉ sarah@awallsz.com



MEET OUR PROJECT COORDINATOR, HANNAH.

Hannah orchestrates the seamless execution of our healthcare projects, coordinating resources and timelines to ensure successful project delivery.

✉ lauren@awallsz.com



MEET OUR FINANCE MANAGER HAYLEY.

Hayley manages financial operations, ensuring accurate budgeting and resource allocation to support the implementation of our innovative prefabricated healthcare solutions.

✉ hayley@awallsz.com



Architectural Wallsz: The solution to the NHP's needs

Flexible, Efficient and Patient-Centric Healthcare Solutions

Whether you're building a new hospital or need to retro-fit modern functions into an existing layout, we're here to help.

DO YOU NEED SINGLE ROOMS?

Our Headwalls and Footwalls are designed to enhance patient privacy and wellbeing. These pre-plumbed, service walls are rapidly assembled, so they are ready to go in a fraction of the time traditional methods take. They are also easy to reconfigure if requirements change, as our products are built with flexibility.

NEED BETTER INFECTION CONTROL?

Our Isolation Pods are equipped with HEPA 14 air filtration systems, which remove 99.997% of particles as small as 0.3 microns. The surfaces are seamless, impact-resistant and super easy to clean, perfect for healthcare-grade disinfection procedures. Infection prevention is in the design.

QUIET SPACES FOR STAFF TO RECHARGE?

We know how important it is for healthcare workers to have a moment to think, recharge or get some paperwork done in peace. That's where our Healthcare Study Pods come in. They're designed to create calm, private spaces with excellent acoustic properties. These pods significantly enhance staff wellbeing.

WANT TO OPTIMISE COSTS AND STREAMLINE YOUR PROJECT?

Our solutions drive cost savings with reduced labour and reconfigurable designs. Offsite manufacturing and seamless integration minimise operational disruption and shorten project timelines. Our team collaborates closely with clients to tailor rapid, efficient installations and cost-effective solutions.

Get in touch

Interested in learning more about prefabricated healthcare solutions?

Get in touch with us at Architectural Wallsz today to see how we can help you transform your healthcare facility with flexible, future-proof solutions.

 0121 374 0070

 enquiries@awallsz.com

 www.awallsz.co.uk



Architectural Wallsz

Modular Healthcare Solutions

Building the future, today.