HEALTHCARE



MCA ARCHITECTS

Better Is Our Blueprint

Hardworking Solutions for Healthcare Environments



Day Oncology, Clatterbridge Clinic



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REDEFINING HEALTHCARE WITH A BLEND OF CREATIVITY, INNOVATION, AND COMPASSION

The future of healthcare architecture is marked by a continued emphasis on enhancing patient experiences through both technological advancements and empathetic design. The ongoing upgrades of imaging and treatment equipment and the development of new facilities are geared towards creating environments that are not only technically proficient but also genuinely supportive of those they serve.

In this dynamic field, our focus remains steadfast on crafting spaces that blend safety, innovation, and compassion - a holistic approach that is essential to promote and enhance the wellbeing of patients and residents. The dedicated healthcare team at MCA are ready to help you deliver enhanced quality of care through a commitment to thoughtful design in healthcare settings.



Peter Duffy
Director & Healthcare Lead



The central lightwells at the UHG Radiation Oncology Building serve as simple orientation devices that maximize natural light within the deep-plan structure.

OUR CORE VALUES



CREATIVITY & INNOVATION

We push boundaries and find smarter, more beautiful ways to design spaces that endure.



COLLABORATION & CLIENT FOCUS

Strong partnerships and open communication are at the heart of our success. Client Centric.



COMMITMENT TO EXCELLENCE & CERTAINTY

We deliver with confidence, precision and the highest professional standards.



SUSTAINABILITY & RESILIENCE

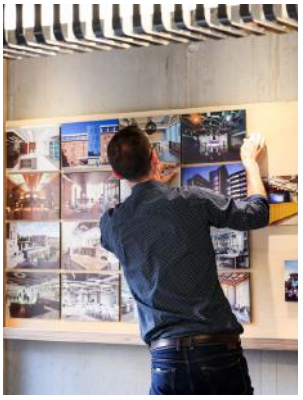
Our work enhances communities, respects the environment, and stands the test of time.



WE ARE

- Experienced 36 yrs Young
- Competitive & Practical
- Creative
- Committed
- We Enjoy What We Do





WE HAVE

- Capacity
- Technical Expertise
- ISO Accreditation
- BIM Capability
- Unique Understanding of Healthcare Design



WE WILL

- Innovate
- Control Cost
- Deliver Quality on Time



1988

Firm Established

70+

Employees



WE HAVE BEEN DESIGNING HEALTHCARE ENVIRONMENTS FOR OVER 30 YEARS

Our Expertise


Radiotherapy


Elderly Care


Procedures


Pharmacy


Diagnostics


Ward Builldings


Ambulance


Rehabilitation



Emergency


Radiation Oncology


Psychiatric Acute


Theatres


Outpatients


Infrastructure Upgrades


Rapid Build

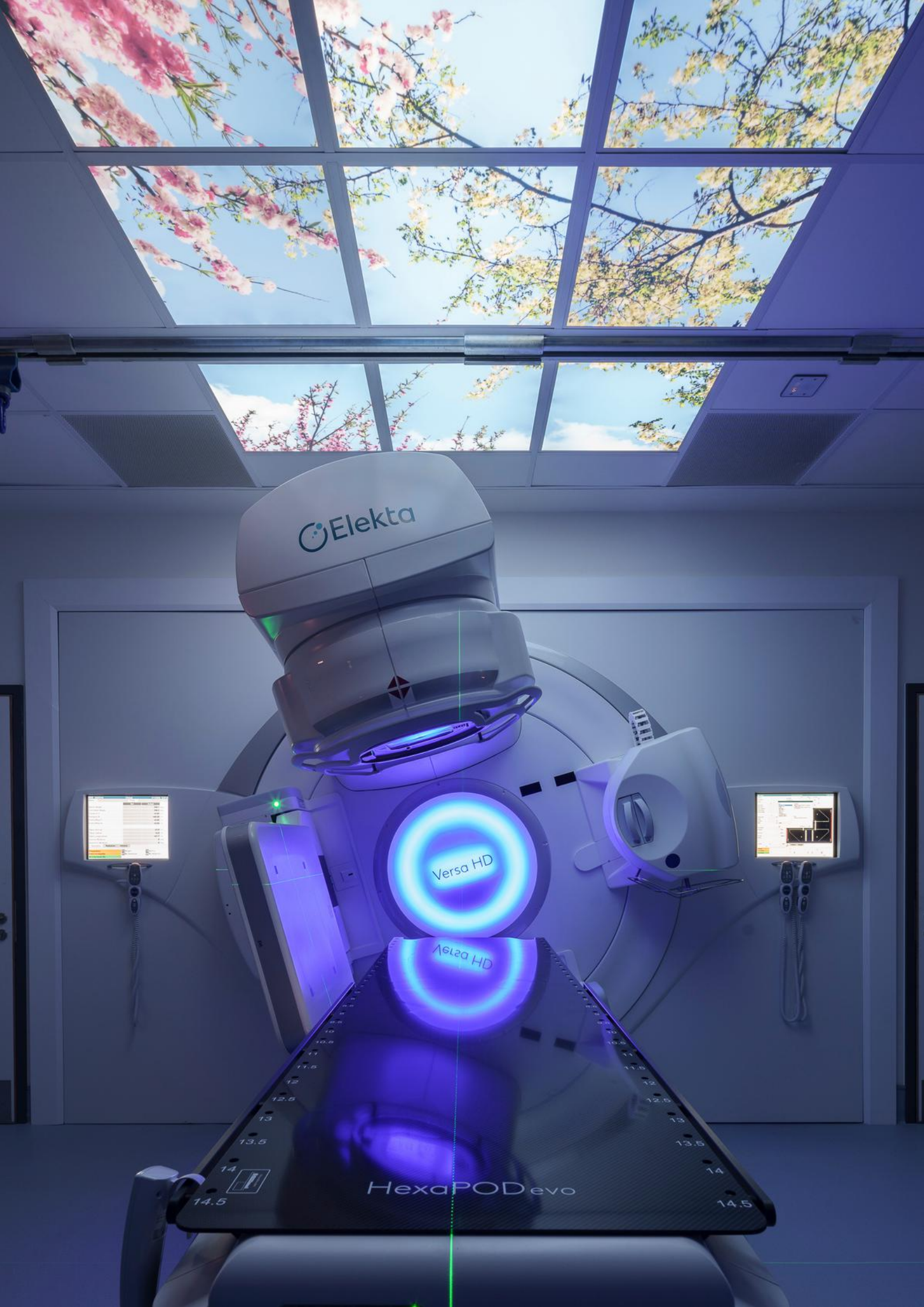
WE ARE A LEADING EXPERT IN RADIATION ONCOLOGY



For over 17 years, MCA has been at the forefront of cancer care facility design in Ireland and the UK, specializing in both public and private Radiation Oncology (RO) and Day Oncology centres. Our portfolio includes pivotal contributions to RO centres at Beaumont Hospital and St James's Hospital, each featuring four linear accelerator treatment rooms, MRI and CT facilities, with comprehensive consultation, support, and administration areas. As architectural and design team leaders, we have developed a total of 13 radiotherapy treatment bunkers, incorporating Brachytherapy, Treatment Planning, Radiation Physics, and Clinical Trials, and we have completed numerous upgrades at St Luke's Hospital in Dublin, reinforcing its status as a Centre of Cancer Care Excellence. Our work also includes the completion of day oncology facilities for Mater Private Network and the provision of RO facilities for University Hospital Limerick.

Currently, MCA is undertaking significant upgrades to MRI, CT, and Linear Accelerator equipment at Beaumont, St Luke's, and St James's hospitals, along with a six-bunker extension at Beaumont and the early-stage development of Day Oncology services at Cavan Hospital.

Effective cancer care design lies in the seamless integration of clinical functionality with a supportive environment. Our use of central lightwells and carefully curated colour schemes transforms potentially intimidating spaces into environments that foster psychological and emotional healing. This approach not only optimizes physical health outcomes but also addresses the emotional and mental well-being of patients, which is crucial in oncology care.


Elekta
Versa HD
HexaPOD evo





Client: HSE

Value: €28.6m

Finish Date: 2019

Size: 8,880 sq.m

PROFESSIONAL TEAM

MEP Engineering: Ethos Engineering

Cost Control: Turner & Townsend

PSDP: RPS

Fire Safety: MSA

CORK UNIVERSITY HOSPITAL
RADIATION ONCOLOGY CENTRE
WILTON, CORK







CLIENT'S VISION

The HSE required a world class radiotherapy treatment centre that would serve oncology patients from the southern region of the country. It was to be a one-stop-shop including eight radiotherapy treatment bunkers, brachytherapy, CT diagnostics and on-treatment-support consultancy. It was to incorporate the most current medical technologies available and be sufficiently flexible to accommodate future technological advances. The facility had to comply with all relevant HBN guidance and needed to achieve an A3 energy rating.

UNIQUE CHALLENGES

The key challenge was to craft patient friendly spaces in a potentially intimidating medical environment. Medical functionality dictated much of the design. Room adjacencies had to be achieved, and the highly clinical environment and extensive medical equipment required significant services. Much of the medical equipment emitted harmful radiation and the radiotherapy treatment rooms required walls and roof slabs of up to 2.7m thick high-density concrete shielding. The scale and nature of the accommodation on a compact site required a deep-plan solution with limited access to natural light.

SOLVING THE CHALLENGES WITH DESIGN

Extensive collaboration with end users helped us understand their needs, and every aspect of the building was shaped and reshaped until all stakeholders were satisfied. The jigsaw puzzle of room adjacencies was refined while always considering the patient flow and patient experience. An enabling works construction contract was carried out to de-risk the site of potentially costly delays and relevant aspect of the construction were tested to verify compliance for a facility where fractions of millimetres count.

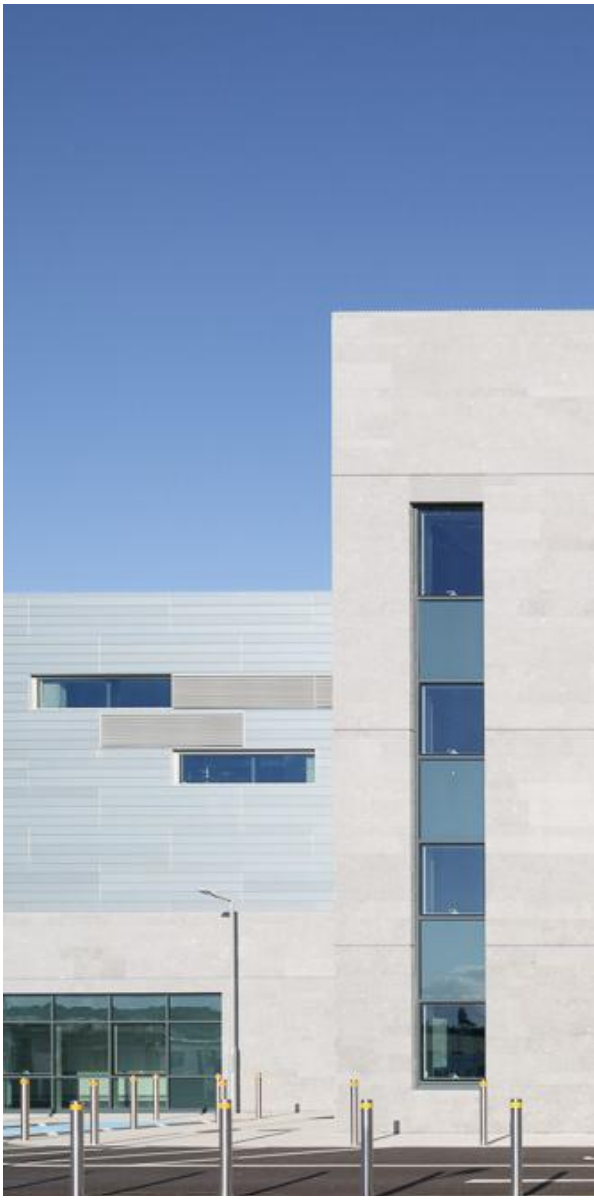
HOW CHALLENGES BECAME INNOVATIONS

The design incorporated a central atrium to flood the more public patient areas with light and height and this became the lynch pin of the building, linking patient areas on different floors and assisting with wayfinding. The patient journey from entry to treatment informed every design decision, from pulling light and natural imagery into areas where patients spent most time, to the colour selections of patient routes, and the use of a maze to the treatment bunkers rather than the more intimidating heavy steel doors.




PET Scan
&
MRI Unit
Ionad Chuan
Dor
The
Glandore
Centre

RADIATION ONCOLOGY CENTRE
UNIVERSTY HOSPITAL GALWAY
NEWCASTLE ROAD, GALWAY



CLIENT'S VISION

The radiotherapy equipment used to treat oncology patients in the west and north of the country was approaching the end of its operational lifespan, making the situation critical. The HSE sought to develop a cutting-edge facility equipped with the latest advancements in medical technology. The new facility was to include six radiotherapy treatment bunkers, a brachytherapy suite, CT and MRI diagnostic units. Additionally, it was required to comply with all applicable Health Building Note (HBN) guidelines and achieve an A3 energy efficiency rating.

UNIQUE CHALLENGES

The primary challenge in designing clinically demanding buildings lies in balancing patient-centered care with the demands of medical functionality. Despite the need for an extensively serviced, highly technical facility to accommodate large, complex medical equipment, the design could not compromise on patient comfort and experience. Strict room adjacencies and the use of concrete structures up to 2.7 meters thick for radiation shielding added further complexity. Difficult site conditions, with undocumented services and structures, presented significant obstacles. The construction itself took place during the peak of the pandemic, compounding these challenges.

SOLVING CHALLENGES WITH DESIGN

Understanding forms the cornerstone of effective design, and close collaboration with end users was central to shaping every aspect of the project. Spaces and adjacencies were carefully tested and refined to ensure they not only met but surpassed expectations. The patient's journey, mindset, and vulnerabilities were carefully considered throughout the process. Separate contracts for infection control and enabling works were completed prior to the main construction to safeguard hospital patients and reduce the risk of costly delays.

HOW CHALLENGES BECAME INNOVATIONS

The design incorporated a central atrium to flood the public patient areas with light, becoming the lynch pin of the building,and assisting wayfinding. The patient journey from entry to treatment informed every design decision, from pulling light and natural imagery into areas where patients spent most time, to the colour selections of patient routes, and the use of a maze to the treatment bunkers rather than intimidating heavy steel doors.

Client: HSE

Value: €33m

Finish Date: 2023

Size: 9,400 sq.m

PROFESSIONAL TEAM

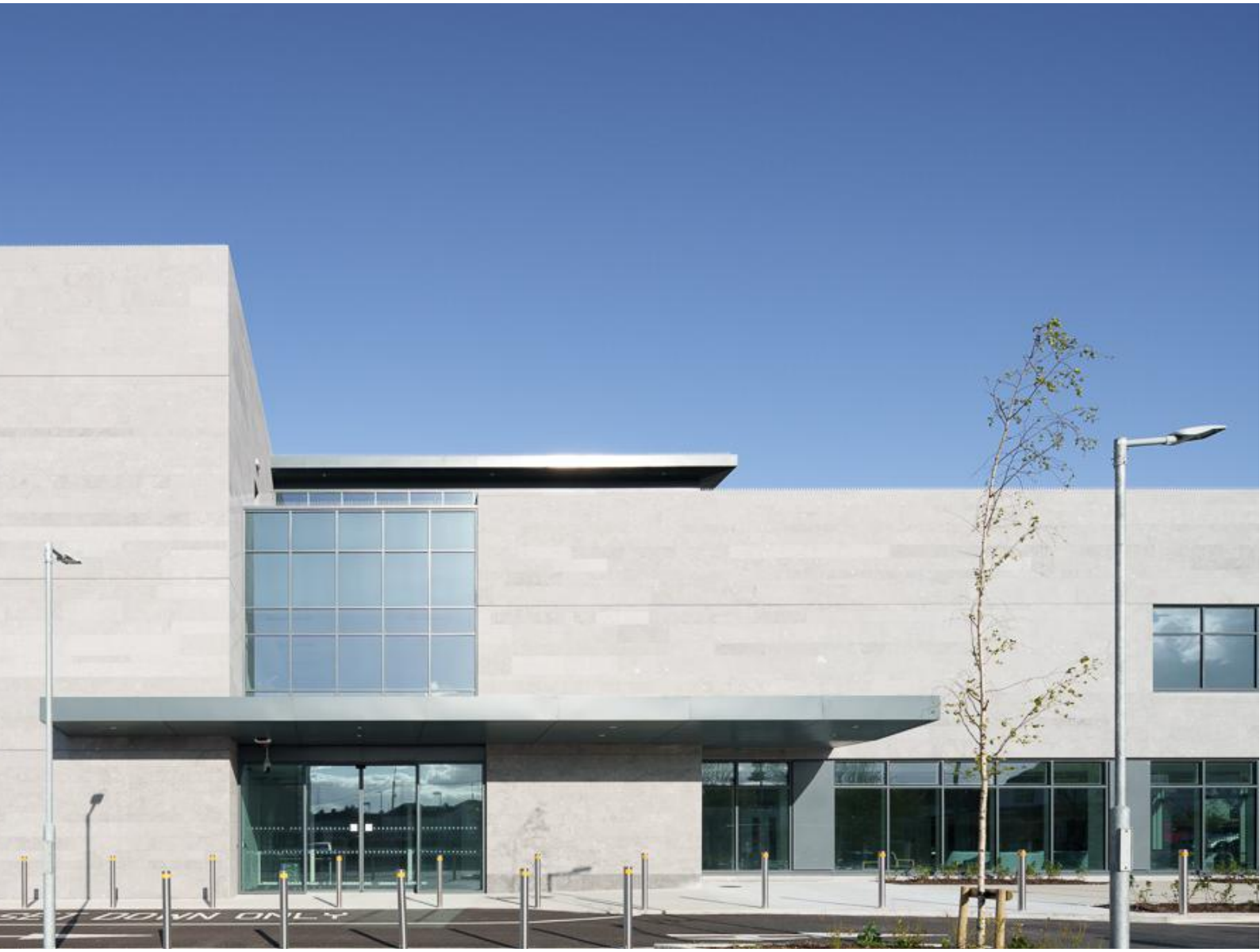
MEP Engineering: Ethos Engineering

Cost Control: Turner & Townsend

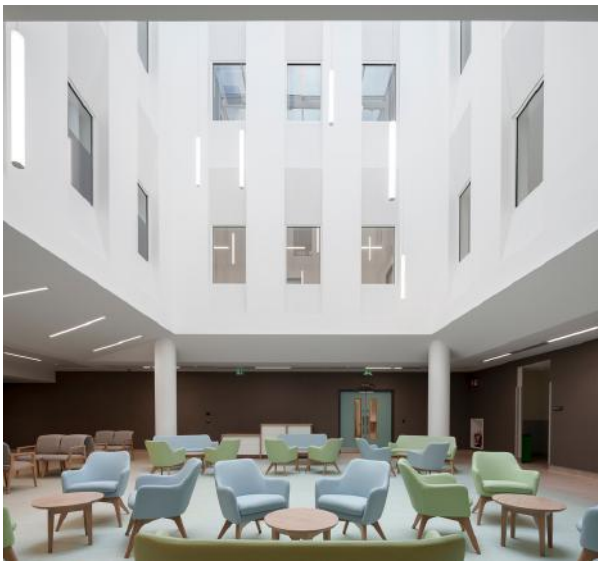
Civil & Structural: TJ O'Connor & Associates

PSDP: RPS

Fire Safety: MSA










STOP

CLATTERBRIDGE CLINIC

MERSEYSIDE, UK

MCA played a key role in transforming the Clatterbridge Centre for Oncology, one of the UK's largest cancer care hubs and the exclusive radiotherapy provider in the Merseyside and Cheshire network. We collaborated with the Mater Private on their successful bid to establish a Private Patient Unit within the centre. This project involved strategic alterations and refurbishments, including a new dedicated entrance, a state-of-the-art radiotherapy suite, day oncology facilities, and consultant suites, all designed to an impeccable aesthetic standard. MCA led the design vision and oversaw the process, with AFL Architects handling the detailed development and on-site project management.







ST. LUKE'S HOSPITAL

DUBLIN 6

As part of theNational Plan for Radiation Oncology, MCA delivered design services for St. Luke's Hospital in Dublin, creating two new radiotherapy suites and upgrading two existing linear accelerator rooms. The center, which offers a full spectrum of radiation oncology treatments, required advanced shielding solutions including high-density blocks for the new suites and additional steel shielding for the older rooms.

ST. JAMES'S HOSPITAL

DUBLIN 8

As part of the National Plan for Radiation Oncology, MCA were appointed PDSP and were responsible for managing the design team to deliver this 6,500 m^2 3-storey new build treatment centre.



BEAUMONT HOSPITAL

DUBLIN 9

As part of the National Plan for Radiation Oncology at Beaumont Hospital, MCA provided design and construction technical advisory services for a new 5,270 m², three-story treatment center. This state-of-the-art facility includes 4 linear accelerators, 2 CT simulators, an MRI suite, and support spaces, delivered through a design and build contract under Phase 1 of the project.







ONGOING WORK

MCA have also designed the Radiation Oncology Centre on the NPRO Phase 2 site at Beaumont Hospital. The core clinical focus of the development is to provide a world class and innovative Radiation Oncology Service. The Phase II extension of the St Luke's Radiation / Oncology Centre at Beaumont Hospital will include, at ground floor level an Out-Patients and an Ambulatory Care department, also the addition of six radiotherapy treatment rooms, bring the centre's number of treatment rooms to ten. At first floor level a new Day-Procedure Department and PET CT Department are to be located, complimentary to the existing CT and MRI department and at second floor level new teaching and research facilities are to be located. The project has completed detailed design.

A PERSON-CENTERED APPROACH TO ELDERLY CARE DESIGN



In our work in the design and construction of older age residential care units we are experts in the evolving models of care. A person-centred model, known as “Teaghlach” (household) is increasing being encouraged to facilitate resident centre care based on the premise that the care setting is also the person’s home. This model has developed out of international experience and papers such as the NCAOP 2006 ‘Report for Improving quality of life for older people in long stay settings’ and the Draft National Quantity Standards for Residential Care.

The translation of the “Teaghlach Model” for our design of the CNU in Merlin Park Hospital is to ensure that bedrooms are configured around smaller households with social rooms to allow residents to safely wander within these self-contained units. Several break-out spaces are provided with seating areas for rest and reflection and common areas such as the hairdresser are grouped outside the households to create facilities which are ‘destinations’.

TEMPLATE DESIGN

- 2 Households
- 14 bed and 11 bed
- Each household has dedicated access to outdoor garden
- Separate day rooms
- Shared kitchen
- Common reception



Household 1

Household 2

Entrance & Amenity

Staff & Service

Visitors





Client: Health Service Executive

Value: €16m

Finish Date: 2024

Size: 4,600 sq.m

PROFESSIONAL TEAM

Service Engineer: J.V. Tierney & Co

Cost Control: Lawlor Burns & Associates

Structural & Civil Engineers: Punch Consulting Engineers

Landscape Architects: Stephen Diamond & Associates

NENAGH COMMUNITY NURSING UNIT

NENAGH, TIPPERARY







CLIENT'S VISION

A new 50-bed Community Nursing Unit for long term residents adjacent to Nenagh General Hospital to replace the outdated 1970s nursing home with a modern, compliant facility. The design was to create a homely environment to meet the specific needs of elderly care while encouraging residents to retain their independence and minimise isolation by maximising access to social spaces, ensuring that residents can easily and safely move throughout the building without requiring assistance.

UNIQUE CHALLENGES

To balance the creation of providing a natural, homely environment with the clinical demands of healthcare. The challenge was in designing spaces that were inviting and dignified, steering clear of an institutional feel and being mindful that this will be the final home for many residents.

Given that many residents may have vulnerable minds, the environment needed to be carefully crafted to ensure comfort, safety, and a strong sense of community, all of which contribute to enhancing their physical health and overall quality of life

SOLVING THE CHALLENGES WITH DESIGN

The design prioritizes patient comfort, incorporating abundant natural light and a central communal space that hosts support services, creating a vibrant hub for social interaction and daily activities. Maximizing natural light enhances residents' comfort, supports circadian rhythm regulation, and benefits those with cognitive impairments. Views of secure gardens, green spaces, distant mountains, and the northern town provide a strong connection to the outdoors.

Thoughtfully designed outdoor areas offer therapeutic benefits, while a wander management system enables residents to move freely and safely, fostering independence without compromising safety.

HOW CHALLENGES BECAME INNOVATIONS

Challenges were transformed into opportunities for innovation, resulting in a facility that is not only compliant and homely but also sustainable and efficient. Key innovations include the integration of solar panels on the roof and the implementation of natural ventilation systems, both of which contribute to a healthier environment for residents while promoting energy efficiency.







HEATHER HOUSE COMMUNITY NURSING UNIT

GURRANABRAHER, CORK

Client: HSE

Value: €20m

Finish Date: 2022

Size: 7,307 sq.mL

PROFESSIONAL TEAM

Consulting Engineers: Roughab & McKillop

Fire & DAC: FFC

CLIENT'S VISION

The sixty-bed extension to the existing Community Nursing Unit at Heather House arose from the Health Service Executive (HSE) requirement to provide HIQA compliant residential care facilities for older people within Cork city. Furthermore the extension is to provide step-down facilities for senior long-stay patients of Cork University Hospital, to assist the acute hospital with the pandemic demands.

UNIQUE CHALLENGES

This was a rapid build project, unusual for a healthcare but from design development to the buildings' substantial completion on site, the project was completed under the Covid-19 emergency legislation period. The project commence on site January 2021 and substantial completion was achieved March 2022, a 13 month build programme. The extension was opened by Taoiseach Micheál Martin 16 June 2022.

SOLVING THE CHALLENGES WITH DESIGN

As a rapid build project a steel frame system (SFS) was utilised for the build. We designed the SFS to allow for mechanical and electrical services to the bedrooms including oxygen lines. The extension had to meet contemporary healthcare provisions for older people with each of the sixty bedrooms having piped oxygen. The existing facility used cylinder oxygen as required however the pandemic has changed this policy going forward and each bedroom and resident recreational rooms are now oxygen piped.

HOW CHALLENGES BECAME INNOVATIONS

The extension had to tie-in seamlessly with the existing fifty-bed development, so the floor to ceiling height were pre-determined. The existing ground level floor to ceiling height was limited and for the extension this resulted in a condensed ceiling service void. The design developed to run the majority of mechanical and electrical provision at first floor, which had a sizable ceiling void and drop at agreed points services to ground floor which would address the rooms locally. This called for careful coordination, but the result allowed for that seamless transition between the existing building and extension.











SACRED HEART HOSPITAL
CASTLEBAR, CO. MAYO



CLIENT'S VISION
An A3 rated 80-bed CNU with en-suite HIQA complaint accommodation linked to the existing hospital. Designed for residents to retain independence and minimise isolation by maximising access to social spaces without assistance. This in turn minimises staffing levels and improves operational efficiency. A homely design consistent with elderly care and treatment requirements.

UNIQUE CHALLENGES
A live hospital, requiring demolition of an existing ward linked to occupied buildings, involving the full strip out and refurbishment of the kitchen and laundry to provide a thermally efficient, modern facility. Phased works to ensure no disruption to the live services or accommodation. Works included extending services from the remote, central energy centre over existing roofs into the new development. The planning authority stipulated the building design must mimic the existing blocks, and parapet heights for the two-storey, flat roof link area must not project above the existing storey-and-a-half high main entrance atrium.

SOLVING THE CHALLENGES WITH DESIGN
This was carried out in phases to maintain use of the wards and ensure uninterrupted services. To address local authority restrictions, materials and finishes were adjusted to harmonize the new blocks with existing buildings. A simple palette of render and natural stone was used to create a cohesive, modern look. Parapet height limits posed a challenge, as the required height exceeded the allowable limit by half a storey. This was resolved using flat roofs with expressed canopies and set-back raised areas for clearance. The building's design creates distinct households for residents, with single-sided corridors overlooking a large central courtyard to maximize light and views. Wandering internal routes connect to external pathways, encouraging resident use with purposeful destinations.

HOW CHALLENGES BECAME INNOVATIONS
To avoid visual clutter all individual external grills were removed from the facades and combined within tall vertical louvres which assisted with breaking up the long bedroom block elevations. The vertical emphasis to an otherwise horizontal block was enhanced with natural stone vertical features at each bedroom block to provide a repeating rhythm across the façade.

Client: HSE

Value: €9m

Finish Date: 2017

Size: 3,720 sq.m

PROFESSIONAL TEAM

Fire & DAC: Eamonn O'Doyle

Cost Control: Arup

M&E Consulting Engineers: Hayes Higgins

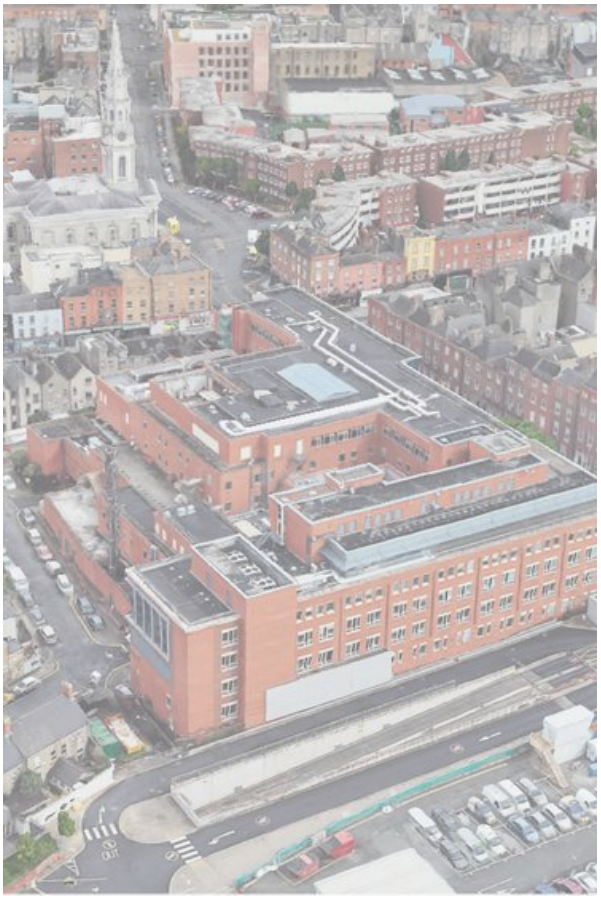
Landscape Architect: Stephen Diamond







ENSURING SAFETY, MINIMISING DISRUPTION, AND DELIVERING QUALITY IN LIVE HOSPITAL ENVIRONMENTS



Mater Private Network, Eccles Street, Dublin 7.
Throughout a 30 year relationship with Mater Private Hospital, MCA have developed expertise in delivering projects in active urban hospitals where disruptions to services are not an option.

01
COLLABORATION

Maintaining hospital operations during extensive construction work on a live campus requires regular collaboration with the hospital's estates and facilities managers and user groups from the project outset, focused on identification of critical functions and risk analysis

02
PHASING

MCA are experts in developing considered and robust phasing plans that prioritise uninterrupted service. This is achieved through comprehensive documentation that ensures contractors understand the segregation of works, control of deliveries and demolitions, minimisation of aspergillus, and mitigation against noise and vibrations.

03
CONTINGENCY

Developing considered contingency plans in close collaboration with hospital operations and the contractor is key to managing risks and ensuring project success. MCA are adept in effective project collaboration to develop coherent and consideredcontingency plans which may include alternative strategies for patient care delivery, and have a proven track record of delivering projects on schedule.


Mater
Private
TO LET

MATER PRIVATE HOSPITAL THEATRE 9

ECCLES STREET, DUBLIN 7



Client: Mater Private Network

Value: €13m

Finish Date: 2024

PROFESSIONAL TEAM

Quantity Surveyor: Chancery Group

M&E Engineers: CSD Engineering

PSDP: Arkman Engineers

Civil & Structural: J.B. Barry & Partners Limited

Fire Safety: MSA

CLIENT'S VISION

MCA architects recently completed the design and delivery of a new operating theatre at the Mater Private campus on Eccles Street, constructed on a small courtyard island within an existing building. The client had to to respond to a critical need for additional theatre space in a tight urban site.

UNIQUE CHALLENGES

The site was surrounded by operational hospital facilities on all four sides, presenting significant logistical challenges. The project's complexity was amplified by the need to phase the work carefully, temporarily relocating existing facilities, and building new staff rooms and equipment storage, all within the extremely tight confines of a busy urban healthcare campus.

SOLVING THE CHALLENGES WITH DESIGN

To overcome these challenges, MCA implemented several innovative and carefully designed solutions. With scaffolding erected around and over the adjacent roofs to facilitate construction, the structure was built from the basement up and the roof down, over the 4-5 storeys. Through extensive engagement with hospital stakeholders, the project was developed across 7 phases, each with numerous sub-phases to deliver the complex build while ensuring that no phases to deliver the complex build while ensuring that no operations or hospital services were disrupted. We meticulously planned the project to work within stringent deadlines, ensuring that patient safety, well-being, and infection control were maintained at all times.

HOW CHALLENGES BECAME INNOVATIONS

MCA worked closely with the hospital's operations team to design a process that allowed construction to proceed near operating theatres where live surgeries were being conducted. This required precision, collaboration, and creative problem-solving to protect both the hospital's critical services and its patients, while still achieving project goals.



Ph
01



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02



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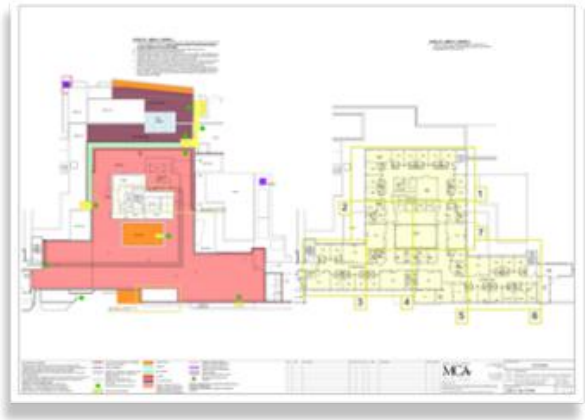
06



Ph
07



Ph
08





PRECISION DESIGN FOR MEDICAL DIAGNOSTICS





We specialise in the design and fit-out of medical diagnostic centres, including facilities for X-Ray, Bone Density (DEXA) scans, and Cardiac Catheterisation Laboratories. These machines emit ionizing radiation, so we ensure that rooms and any openings are suitably shielded to prevent radiation leakage. Our expertise lies in formulating detailed construction requirements that meet specific service and structural parameters, ensuring the builder's work aligns with the precise needs of these specialized environments.

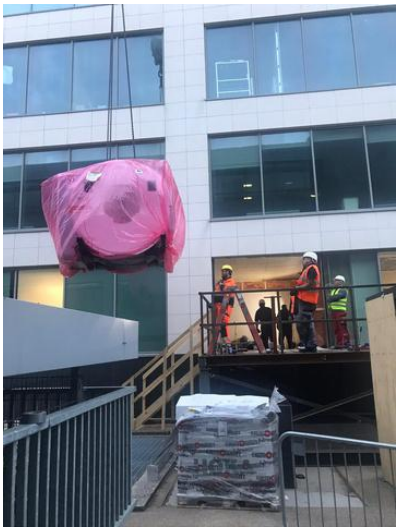
We have also successfully delivered numerous Magnetic Resonance Imaging (MRI) suites. MRI scanners use radiofrequency signals to create detailed images of the body, and the entire system is encased in a proprietary Radio Frequency (RF) cage to minimize external interference. The MRI magnet is permanently energized and made superconducting by liquid helium, even when not actively scanning.

While CT imaging has traditionally been used for radiation therapy planning and dose delivery, MRI offers unique advantages, including enhanced contrast for better segmentation of target areas, motion information for more accurate radiation delivery, and post-treatment outcome analysis to better understand the biological effects of radiation.

Designing MRI suites is complex and requires specialized knowledge to effectively coordinate input from machine vendors and specialist consultants. We excel at translating these requirements into comprehensive information packs for contractors, ensuring the successful construction of the suite. Additionally, we are proficient in managing the logistics of MRI delivery, which often involves detailed assessments of crane lifting plans, incorporation of temporary loading platforms and forming temporary openings to building facades to accommodate the installation.

An MRI machine is craned into the existing building at Cherrywood CDC.







CHERRYWOOD COMMUNITY CARE CLINIC

LOUGHLINSTOWN, CO. DUBLIN

Client: Mater Private Network

Value: €2m

Finish Date: 2020

Size: 1,012 sq.m



PROFESSIONAL TEAM

Quantity Surveyor: Chancery Group

M&E Engineers: CSD Engineering

PSDP: Arkman Engineers

Fire Safety: MSA

CLIENT'S VISION

The projects comprise the conversion of shell and core spaces in the Cherrywood Business Park and Northern Cross to medical facilities. They included the provision of; waiting/reception areas; consultation rooms, diagnostic and administration/staff areas. The client entrusted MCA Architects to create an identifiable brand which could be replicated across multiple sites with high quality finishes and a non-clinical look and feel.

UNIQUE CHALLENGES

The works involved directing specialist input from services, structural, acoustic and equipment suppliers and translating this into information packs to enable the contractor to complete the technical fit-out including the Magnetic Resonance Imaging (MRI) and the X-Ray rooms. This also involved the co-ordination for the delivery and commissioning of the machines. The MRI for example which weighs 4 tonnes was craned onto a specially built loading platform and manoeuvred into position by removing a section of the existing curtain wall all whilst operating under extremely tight timelines.

SOLVING THE CHALLENGES WITH DESIGN

The fit-out of the X-Ray, CT and MRI rooms created specific design challenges as the machines emit ionizing radiation and in the case of the MRI, a strong magnetic field. Our responsibility included the formulation of the details for the shielding to restrict these hazards and reduce outside interference for the scanning procedures.

HOW CHALLENGES BECAME INNOVATIONS

MCA were tasked to design rooms with a non-clinical, upmarket look and feel whilst adhering to strict infection control standards. To fulfil the brief, we designed bespoke joinery to follow the guidelines on the health building notes and technical memorandums. The unique design of the main reception/waiting areas is also enhanced with high quality timber finishes, large format porcelain tiles and customised reception desks.

NORTHERN CROSS COMMUNITY CARE CLINIC
DUBLIN 17

Client: Mater Private Network

Value: €2.7m

Finish Date: 2020

Size: 1,237 sq.m



PROFESSIONAL TEAM

Quantity Surveyor: Chancery Group

M&E Engineers: CSD Engineering

PSDP: Arkman Engineers

Fire Safety: MSA

CLIENT'S VISION

The project completed in Northern Cross is part of the expansion of Mater Private Network of medical facilities. Similar to their medical centre in South Co Dublin, the project comprised the conversion of shell and core spaces into reception areas; doctors consultation rooms, diagnostic and administration areas. The interiors were designed in keeping with the Client's identifiable brand with high quality finishes and a non-clinical look and feel.

SOLVING THE CHALLENGES WITH DESIGN

The fit-out space provided challenges in terms of the unusual shape of the existing floor plates which are separated by a shared entrance lobby. MCA were tasked with carefully manipulating the specific accommodation and floor areas required within the available space to maintain regular room sizes and direct circulation routes.

HOW CHALLENGES BECAME INNOVATIONS

In addition to co-ordinating the necessary technical design of the diagnostic area, the completed medical centre provides a client centred facility with a non-clinical, upmarket look and feel whilst adhering to strict infection control standards. The unique design of the main reception/waiting areas is enhanced with high quality timber finishes, large format porcelain tiles and customised reception joinery.




Mater
Private
South

IF THE INTERNATIONAL HEALTH INDUSTRY WERE A COUNTRY, IT WOULD BE THE FIFTH-LARGEST CARBON EMITTER IN THE WORLD

The healthcare sector contributes significantly to global carbon emissions, accounting for 4-5% of total CO2 emissions (compared to 2-3% from aviation). Irish Hospitals are among the highest energy users in the country with around -the -clock basics of heat and light as well as expensive medical equipment to keep running and, on average, Irish hospitals consume substantially more energy per square meter compared to office buildings. The HSE aims to reduce energy usage by 50% and energy-related GHG emissions by 51% by 2030, targeting net-zero emissions by 2050, as outlined in the Climate Action Plan 2021.

Decarbonizing healthcare facilities poses unique challenges. Hospitals operate continuously, making internal refurbishments difficult, and are often in urban areas with limited space for expansion. Many campuses include temporary structures and protected buildings, complicating retrofitting. Hospitals also rely on multiple, often outdated heating systems, and infection control measures limit internal upgrades. Development control plans guide sustainable expansion and retrofitting, but older buildings may only be repurposed for administrative functions due to structural limitations and regulatory standards.

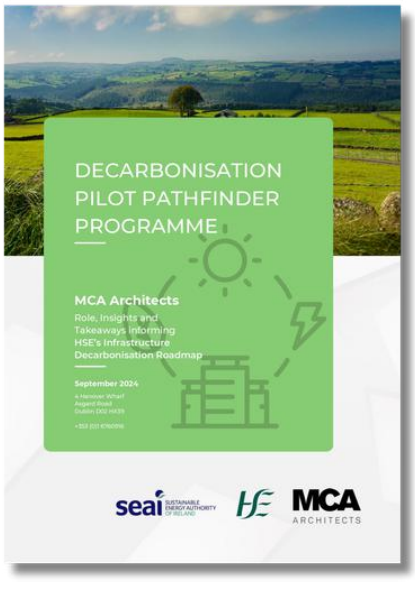
As the Technical Advisor lead, MCA is spearheading the decarbonization of ten HSE properties across four distinct design teams nationwide. These sites range from multi-storey acute hospital campuses with diverse building ages and construction types, to single-storey community nursing units on greenfield sites. Our goal is to achieve a 51% reduction in carbon emissions, a 50% improvement in energy efficiency, and secure a minimum BER ‘B’ rating.

The outcomes from these pilot sites is being analysed to develop a comprehensive pathway and business case for achieving net-zero emissions across 170 of the HSE’s highest energy-consuming sites by 2050. We have already established the preferred proposals and anticipated outcomes for the ten pilot sites, and are actively guiding large-scale renovation programs to meet these ambitious targets.

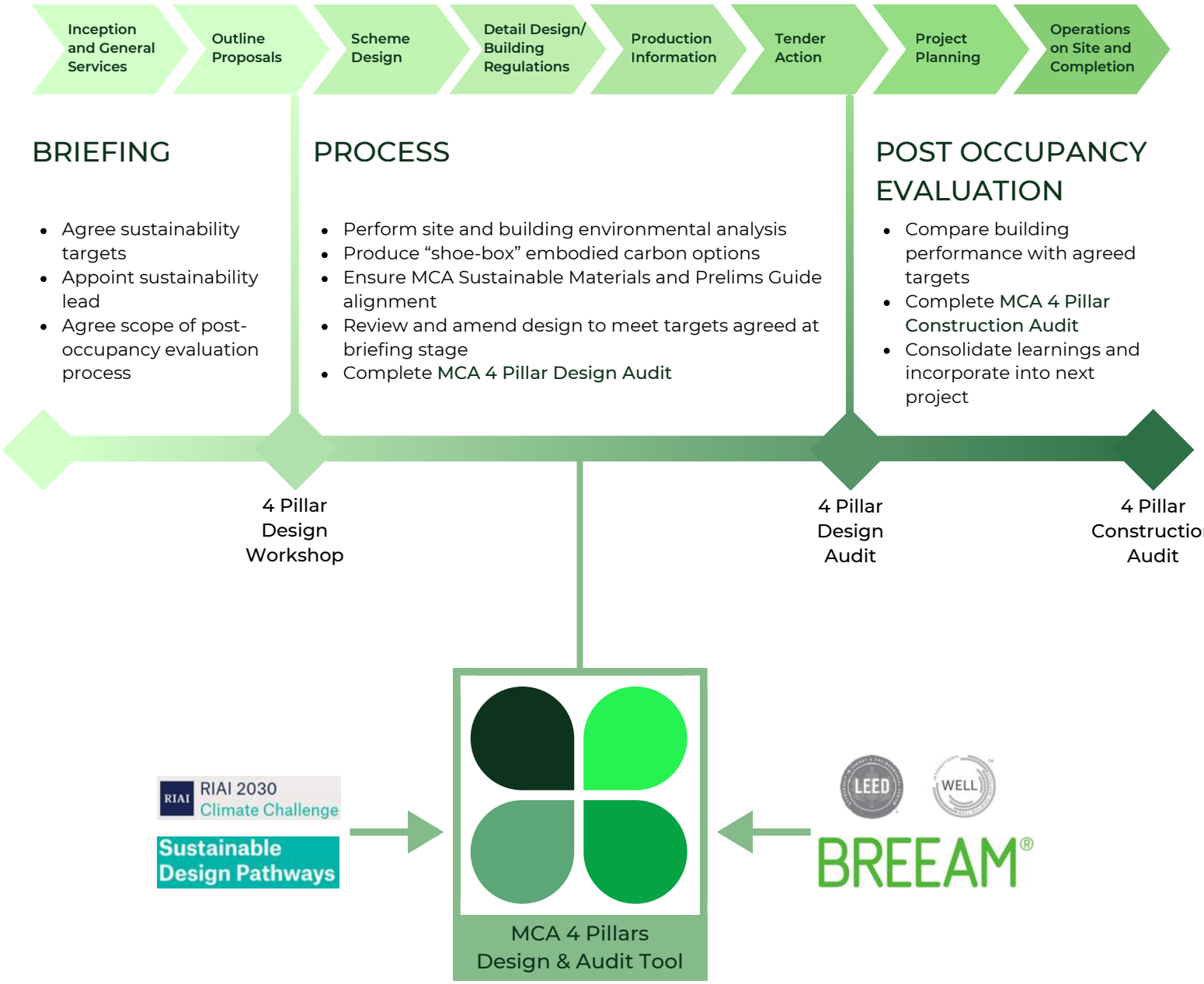


1. Sligo University Hospital
2. Plunkett CNU
3. Mullingar Hospital
4. OLOL Drogheda
5. Lusk CNU
6. Baltinglass CUN
7. Nenagh HC
8. Wexford Hospital
9. Aras Sláinte Office
10. Clonakilty CNU

Read more about MCA’s Role, Insights and Takeaway’s informing **HSE’s Decarbonisation Roadmap**



HOW CAN WE HELP YOU?
A SUSTAINABILITY TOOLKIT FOR ALL PROJECTS



OUR SERVICES



ARCHITECTURE

MCA Architects provide a comprehensive Architectural service in the realisation of building projects from inception to completion.



INTERIOR DESIGN

We offer our Clients a complete interior design service – from brief development and strategic space planning to the selection of materials, bespoke furniture designs and artwork commissions.



WORKPLACE STRATEGY

MCA Architects design and optimize work environments to enhance productivity, well-being, and organizational efficiency, aligning physical spaces with your business goals and employee needs.



SUSTAINABILITY

As part of our ISO 14001 mission statement we are committed to achieving a standard of environmental design higher than that required under legislation. A commitment to do the best for our clients and the future of our planet.



MASTERPLANNING

We have extensive experience of preparing master plans involving existing office, healthcare and industrial facilities where growth requires the integration of new accommodation without interruption to existing business activities and can improve the efficiency of a site and also improve the urban quality.



TECHNICAL DUE DILIGENCE

The leasing or acquisition of property is increasingly complex, but MCA brings substantial expertise to both public and private clients by offering consultancy services on the architectural aspects of both existing and proposed buildings. Since 1990, we have conducted due diligence for over five million square feet of property.



CONSERVATION ARCHITECTURE

MCA has wide experience in the conservation of heritage buildings from the 17th, 18th and 19th centuries including several buildings of public significance. We are qualified to Grade II under the RIAI Accreditation System for Conservation

SOME OF OUR CLIENTS

Health Service Executive

Mater Private Network

Care Choice

Centric Health

St. James's Hospital

Sacred Heart Hospital

St. Vincent's Hospital

The Incorporated Orthopaedic Hospital of Ireland

Beaumont Hospital

Tallaght University Hospital

UPMC

Zoetis

Pfizer



Verso HD

OUR SECTORS


Commercial


Workspace


Data Centres


Hospitality


Healthcare


Logistics


Retail


Residential


Pharma

LET'S WORK TOGETHER



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THANK YOU

MCA
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