ACEI ASSOCIATION OF CONSULTING ENGINEERS OF IRELAND

ANNUAL REVIEW and DIRECTORY OF MEMBERS

2025

ACEI ANNUAL REVIEW AND DIRECTORY OF MEMBERS 2025

ASSOCIATION OF CONSULTING ENGINEERS OF IRELAND

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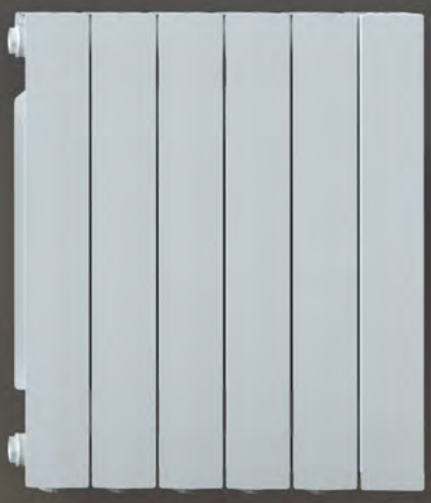

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Tel: +353 1 6425588
Email: info@acei.ie
Web: www.acei.ie

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MESSAGE FROM DIRECTOR GENERAL

In 2024, the Association of Consulting Engineers in Ireland (ACEI) continued to play a pivotal role in shaping the future of the consulting engineering profession. Established in 1938, ACEI is both a representative organisation and a professional body fighting for the business and professional interests of firms and individuals engaged in consulting engineering in Ireland.

The ACEI continues to recalibrate its focus and build its resources to reflect the dynamism of our sector. This year, we added 10 new members to our ranks ranging from internationally renowned consultancy houses to SME practices across the island of Ireland.

The ACEI has been instrumental in addressing some of the most pressing challenges facing the sector. On a daily basis, the ACEI will be asked by members facing issues at a local level to engage with public and private sector clients on their behalf. At a sectoral level, the ACEI and its members have engaged with a wide range of clients such as the Housing Finance Agency, the Land Development Agency, the OGP, NTA, TII, Uisce Éireann, multiple local authorities. The ACEI also represents the sector at the highest level within the Construction Sector Group and through its leadership role within the Construction Industry Council.

Through our involvement in working groups and government committees, we ensure that the perspectives of consulting engineers are considered in the decision-making process.

The ACEI continues to seek the introduction of net contribution clauses into public ssctor projects. There has been strong resistance to this in the past. However, the ACEI will take up the issue with members of the newly formed government immediately.

Our annual conference, held at the Guinness Storehouse on April 23rd, 2024, brought together industry leaders and experts to explore sustainable solutions for these critical issues. The conference, themed “Consulting Engineers: Resolving Ireland’s Housing, Infrastructure & Climate Crises over the next 25 years,” generated lively discussions and thought-provoking presentations.

Throughout the year, we also ran a series of webinars and stakeholders meetings. All were hugely popular, none more so than the ‘Scope Change’ event hosted in November where experts from the ACEI, Griffith & Armour, and Beale & Co outlined how consulting engineering firms can better manage contractual relationships with clients. This webinar is part of the ACEI’s ongoing campaign to shape contractual relations with clients to ensure our members are not foist with unfair risk and thus can deliver for their clients. Part of this campaign has seen the ACEI make its updated standard conditions of engagement and collateral warranty documents available to all consulting engineers in Ireland for 2025. Our belief is that encouraging uptake of these documents will benefit the entire sector and indeed our clients.

As we look ahead, ACEI remains committed to championing sustainability, delivering member services, and enhancing the profession. Our vision is a future shaped by socially and environmentally responsible design, and our mission is to support a vibrant consulting engineering community where member firms can grow successful businesses that deliver sustainable engineering solutions for the benefit of humankind.

In conclusion, I would like to express my gratitude to all our members, partners, and stakeholders for their continued support. Together, we will continue to drive innovation and excellence in the consulting engineering profession.

Shane Dempsey
Director General, Association of Consulting Engineers of Ireland

FOREWORD

It's my pleasure to present the Association of Consulting Engineers of Ireland (ACEI)'s annual report 2024/25. I've witnessed firsthand the remarkable progress and achievements our association and its members have made over the past year. Our efforts have significantly strengthened the consulting engineering sector in Ireland; I'm incredibly proud of what we have accomplished together.

I'm the first female President of the ACEI since our foundation in 1938 – over 80 years ago. My appointment reflects the ongoing and positive changes in our sector. It also symbolises the progress we still need to make. I've used this platform to raise the profile of women in consulting engineering and given interviews to the national press and trade magazines. I also was a panellist on the Engineers Ireland Women in Engineering Group.

A highlight for me was the EFCA conference in Madrid and the FIDIC Conference in Geneva where I met up with other senior women representing our industry. This is important as there is so much that needs to be done. We need to encourage 50% of the student population to at least consider a career in engineering. We recognise that a diverse and inclusive workforce is essential for driving innovation and excellence. To this end, we have launched several initiatives aimed at attracting new talent into the sector and fostering a culture of equality, diversity and inclusivity.

In addition to our efforts on EDI, ACEI has been actively working to attract new people into the consulting engineering sector. Through industry events and our participation in the Government's careers in construction campaign, we have successfully engaged with students and young professionals, showcasing the exciting and rewarding career opportunities available within our field.

This year, ACEI has continued to advocate for the interests of our members, providing a strong and unified voice on various policy issues. Our work with many of the sector's clients, including the Government on the delivery of the National Development Plan and our Budget 2024 submission, are particularly noteworthy, ensuring that the critical infrastructure needs of Ireland are met in a sustainable and forward-thinking manner.

Our involvement in working groups and government committees has ensured that the perspectives and expertise of consulting engineers are considered in the decision-making process. The ACEI, as a member of the Construction Industry Council (CIC), has met regularly to discuss the key challenges that are facing the construction industry as a whole and to ensure a consistent and strong voice. This collaborative approach has helped to shape a more sustainable and resilient built environment for future generations.

Lobbying on behalf of the consulting engineering sector remains a cornerstone of ACEI's mission. We have been tirelessly advocating for our members on issues such as professional liability/net contribution clauses, strategic planning, multi annual budgets, collateral warranties and fairer contracts. I have seen the positive impact of the ACEI dealing directly with bodies like the OGP, HFA, HSE, Uisce Éireann, Irish Rail and others over the past year. Meeting these groups as a representative body works for us all.

The ACEI has run a variety of training courses: Graduate Development Programme, Project Supervisor Design Process and Designing for Safety courses. We have had numerous free webinars on diverse topics such as Pledge to Net Zero, Professional Appointments and Contractual Risk – all which have been very well attended with great Q&A sessions.

Our annual conference, themed 'Consulting Engineers: Resolving Ireland's Housing, Infrastructure & Climate Crises over the next 25 years,' was a resounding success, drawing participants from across the country and sparking lively discussions on the future of our profession. As I said at the time:

"Consulting engineers are the unsung heroes behind Ireland's progress. Our sector bridges the gap between vision and reality. As we face housing shortages, lack of infrastructure, and climate change, our responsibility grows. We must innovate, collaborate, and lead. By designing resilient structures, energy-efficient buildings, and sustainable transport networks, we can create a better Ireland for generations to come.

Consulting engineers enable the Government to deliver strategies such as the NDP, Housing for All, the Climate Action Plan and the National Planning Framework in a sustainable manner. As a result, it's in the interest of the State that our sector is competitive and can secure the talent require to design innovative and sustainable solutions."

I would like to thank the president's team, the executive and the secretariat staff for all their time and hard work. Their contributions have been instrumental in driving the success of the ACEI and advancing the consulting engineering profession in Ireland.

Looking ahead, I am confident that ACEI will continue to be a catalyst for positive change within our industry. Our vision of a future shaped by socially and environmentally responsible design remains steadfast, and our commitment to supporting a vibrant consulting engineering community is stronger than ever. Together, we will continue to champion sustainability, deliver member services, and enhance the profession for the benefit of humankind.

Thank you for your continued trust and support and I hope you find this year's publication informative and enjoyable.

Anne Marie Conibear
President, Association of Consulting Engineers of Ireland

Ringsend Wastewater Treatment Plant © Egis

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PRESIDENTIAL HANDOVER 2024-2025

Handover of chain of office from James Kavavagh, ACEI President 2023-2024 to Anne Marie Conibear

Anne Marie Conibear, ACEI President 2024-2025

Anne Marie Conibear, BE, CEng, MICE, FIEI, Master's in Business Practice, FConsEI, was elected ACEI President at the Association's AGM on the 12th of April 2024. Anne Marie served as convenor of the ACEI Civil Committee between 2020 and 2023, as a member of the ACEI Executive Board since 2019 and first vice-president in 2023.

Anne Marie started her career in the UK working for a large international consultant, becoming chartered with the Institute of Consulting Engineers. On her return to Dublin in 1998, she joined J.B. Barry and Partners. In 2016 she was appointed a director of J.B. Barry and Partners with responsibility for the firm's water services projects in Ireland and internationally. Anne Marie is a fellow with Engineers Ireland, a fellow of the Irish Academy of Engineering, and a registered fellow of the Association of Consulting Engineers of Ireland.

Anne Marie is the first female president of the Association of Consulting Engineers since its foundation in 1938, over 80 years ago. Her appointment reflects the ongoing and positive changes in the sector but also symbolises the progress still to be made over the next decade.

As part of the J.B. Barry leadership team, Anne Marie led the successful integration of the firm with Egis, a multi-national architectural, consulting engineering and operations firm. Anne Marie is a director of Egis and is the second member of Egis in Ireland to act as president of the Association. She leads the Energy and Sustainable Cities Business Line for Egis.

With a career extending over 28 years, working nationally and internationally in water services, Anne Marie's specialisms include water, wastewater, and flooding projects, as well as dam-building. She has been involved in every aspect of the design and construction of major water and wastewater schemes throughout their lifecycle from concept to handover, including oversight of operations and maintenance contracts.

Anne Marie will continue the work of previous ACEI presidents especially regarding implementing ACEI's Strategy 2022 – 2025. She will also focus on delivering value to ACEI members while fostering and enhancing their standing within the consulting engineering profession and built environment sector. Since her election as president, Anne Marie has put in place several initiatives to promote greater diversity within the sector including launching a diversity charter with the Irish Centre for Diversity to achieve equal and diverse employment practices for members.

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1965	Joseph V. Tierney
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1967	Eoin Ó Cionna
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1969	Patrick J. Mehigan
1970	John D. Tighe
1971	John D. Tighe
1972	Desmond Rea O'Kelly
1973	Seán Mulcahy
1974	John Gwynn
1975	Pádraig Aonghus Ó hEocha
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1977	Patrick J. Tobin
1978	Patrick J. Tobin
1979	Robert E. Jacob
1980	Joseph McCullough
1981	John B. Barry
1982	Michael P. Lysaght
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1987	Nael G. Bunni
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1990	John A. Kavanagh
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1995	Malachy Walsh
1996	Donal Lynch
1997	Malachy Walsh
1998	Frank McGrath
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2000	Eamon O'Brien
2001	Michael J. Gannon
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2007	Eamonn Waldron
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2010	Eamon Timoney
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2013	Michael Garrick
2014	Brian Homan
2015	Kevin Rudden
2016	Richard Crowe
2017	Tony Horan
2018	Ciarán Kennedy
2019	Gerry Carty
2020	Conor McCarthy
2021	David McHugh
2022	Brian Kavanagh
2023	James Kavanagh
2024	Anne Marie Conibear

ACEI COMMITTEES 2024-2025

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Ciaran McGovern – 2nd Vice President
Joe Burns – Honorary Secretary
Donnachadh O'Brien – Honorary Treasurer
James Kavanagh – 1st Past President
Shane Dempsey – Director General

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Ronan McElwain
Michael Fleming
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Tim Murnane
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ACEI CONFERENCE 23 APRIL 2024

Engineering sustainable solutions to Ireland's climate, infrastructure and housing challenges

The ACEI's annual conference was held on 23 April 2024 in the Guinness Storehouse. The conference theme was 'Resolving Ireland's Housing, Infrastructure & Climate Crises over the next 25 years'. Expert speakers from leading organisations provided thought provoking presentations which generated lively discussions.

International Guest Presentation Roni Savage was the UK's most influential woman in construction in 2022. She is CEO of Jomas Engineering and leader of the UK's SME Business Council. Roni presented on trends affecting talent, equality, inclusion, and diversity in construction whilst providing an overview of the sector globally. MC, Ingrid Miley, former industry and employment correspondent for RTE News, a qualified barrister, broadcaster and media consultant, expertly engaged the audience.

Ivan Yates, well-known political pundit, gave his view of the political situation in the run up to the next election as participants enjoyed lunch.

ACEI gratefully acknowledges the support and conference sponsorship from Griffiths & Armour and Executive Benefits Limited.

Panel Discussion: Accelerating Sustainable Infrastructure Delivery how the infrastructure within the NDP can be delivered more efficiently and cost effectively.
Panel: James Kavanagh, CEO, Varming, (ex president of ACEI); David O'Brien, OGP; Jerry Grant, chair of Dublin Port; PJ Rudden, chair of the Construction Sector Innovation and Digital Adoption Group; Pia Feeney, EY Government & Infrastructure, Strategy and Transactions.

Panel Discussion: Delivering Smart Sustainable Growth how the consulting engineering sector can influence the economy and the construction industry's digital and sustainability transition.
Panel: Pat Barry, CEO IGBC; John Fitzgerald ESRI; Aonghus O'Keefe, ROD; Chris Behan, Arup; Anne Graham, CEO of NTA.

Panel Discussion: Building our Sector's Capacity how the industry can build on its talent capacity through attracting, developing and retaining people from all parts of society.
Panel: Tim Murnane, PUNCH Consulting (ACEI, 1st Vice President); Dr Aimee Bryne, TUD; Kate English, Deloitte; Graeme Tinney, Griffiths and Armour; Neasa Kane Fine, RPS.

Conference guest speaker Ivan Yates discussing the political landscape under the watchful eye of conference MC Ingrid Miley

Anne Marie Conibear, ACEI President; Ingrid Miley, MC; Roni Savage, CEO, Jomas Engineering and Shane Dempsey, ACEI Director General

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ACEI OVERVIEW

Coastal Road Reunion Island ©Dronetech

HISTORY

The Association of Consulting Engineers of Ireland (ACEI) is the representative body in Ireland of those professional engineering companies that offer their skills and experience in all branches of engineering to clients requiring independent engineering advice and judgement. The Association was founded in 1938. Virtually all of the significant independent consulting engineering firms in the Republic of Ireland, who qualify for membership, are represented in the Association.

OBJECTIVES

The objectives of the Association are to encourage the practice of engineering as a profession, promote ethical principles and procedures, advance the interests of all engineers in all branches of the profession but particularly those of consulting engineers, to increase the usefulness of the profession to the general public, and to safeguard the trust reposed in its members by clients.

ETHICS

A member may not be directly or indirectly involved in any business enterprises which would lead to conflicts of interests and the Association's Executive Board monitors the activities of its members to ensure that ethical standards are maintained at all times.

PROFESSIONAL CODE

Central to the philosophy of the Association has always been that professional fees paid by clients are the member's only remuneration from the projects undertaken. This freedom from conflict of interest is meant to assure objective, unbiased advice from consulting engineering enterprises. As part of its concern for quality of service the Association promotes quality-based selection as the most appropriate procedure for the appointment of consulting engineers and the settlement of their fees.

For procedures recommended by the Association for reaching agreement on fees see Selecting a Consulting Engineer pages 108-114.

ENGINEERING DISCIPLINES

ACEI member firms offer design and supervision services in all the main engineering disciplines including civil, structural, mechanical and electrical services, fire and process engineering.

Most firms tend to specialise in one or other of the major branches of project engineering but some cover a number of such specialities.

Some member firms are capable of providing additional professional services such as quantity surveying and architecture as optional in-house facilities but these services may also be provided in association with other independent firms recognised in their own field.

ACTIVITIES OF THE ASSOCIATION

The ACEI negotiates with various public and private client bodies on behalf of its members on important issues such as quality-based selection of consulting engineers, professional liability, health and safety etc.

The ACEI is consulted on a regular basis by government departments to present the views of the profession in relation to forthcoming legislation.

ACEI also makes representations to public and private sector client bodies in relation to business practice procedures in the appointment of consulting engineers.

THE ACEI

- Publishes model Conditions of Engagement, suitable for presentation to clients and advises members on terms of conditions of engagements and related contractual issues including collateral warranties.
- Arranges regular seminars on best practice issues relevant to the profession and publishes advice notes to members on a range of business issues.
- Maintains a database of its members, and makes this information available to clients on its website.
- Assists clients seeking suitable consultants for specific projects by nominating a selection of firms whose experience and geographical location best meets their requirements.
- Publishes a directory of members every year, which is circulated widely to client organisations to assist them in selecting a consulting engineering enterprise. Selecting a consultant is one of the most important decisions an owner or client makes. The success of any project often depends upon obtaining the most able, experienced and reputable expertise available.

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DIGITAL TRANSFORMATION IN IRELAND'S CONSTRUCTION, ARCHITECTURE, AND ENGINEERING SECTORS

Author – Robert McNair, PhD – Senior Technical Consultant, Leyton Ireland

Ireland is witnessing a significant digital transformation within its construction, architecture, and engineering (AEC) industries. These sectors are increasingly leveraging digital technologies to drive growth, enhance efficiency, and improve sustainability.

INDUSTRY GROWTH AND INVESTMENT

The Irish government's commitment to modernising the AEC sectors is evident through initiatives such as Project Ireland 2040. This centres on spatial planning and public capital investment, with a significant portion allocated to the digitisation and modernisation of infrastructure. Stakeholders in both the private and public sectors are increasingly investing in Building Information Modeling (BIM), prefabrication, 'digital twin' models, and cloud-based project management platforms, signalling a robust growth trajectory for these industries.

TECHNOLOGICAL INNOVATION

Ireland's AEC sectors are at the forefront of integrating cutting-edge technologies. BIM is becoming the industry standard for project visualisation and collaboration, enabling all stakeholders to work from a single, accurate source of information. The adoption of augmented reality (AR) and virtual reality (VR) is enhancing design processes by providing immersive project experiences. Additionally, the Internet of Things (IoT) is making construction sites smarter, with real-time data collection and monitoring leading to better decision-making and enhanced safety.

Emerging technologies such as drones for site surveys and inspections and the development of digital twin models, as well as 3D printing for creating complex building components, are also gaining traction.

FUTURE OUTLOOK AND OPPORTUNITIES

The future of Ireland's AEC sectors looks promising, with a multitude of opportunities emerging from the ongoing digital revolution. The integration of artificial intelligence (AI) for predictive analytics and automation can revolutionise risk management and resource allocation.

Education and training will play a crucial role in equipping the workforce with the necessary digital skills. Collaborations between industry and academia are essential to foster innovation and maintain a pipeline of talent capable of driving the next wave of technological advancements.

Overall, the digitisation of Ireland's construction, architecture, and engineering sectors is not just a trend but a transformative wave that promises profound economic impacts and numerous opportunities for growth. As these industries continue to embrace and integrate new technologies, Ireland is well-positioned to become a leader in the global digital construction landscape, delivering sustainable and efficient solutions for future infrastructure needs.

If your business is driving digital transformation in Ireland's construction, architecture, or engineering sectors and you'd like an informal chat about your eligibility for R&D Corporation Tax Credits, get in touch with the team at Leyton today.

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ACEI AFFILIATIONS


8th Lock, Dublin 15

LOCAL AFFILIATIONS

The Association is a member of a number of important ad-hoc external bodies and actively participates in their work.

The most significant of these are:

CONSTRUCTION INDUSTRY COUNCIL (CIC)

The Construction Industry Council is comprised of representatives (usually president and CEO), of the six largest built environment-related bodies operating in Ireland, including the Association of Consulting Engineers of Ireland (ACEI), Engineers Ireland, the Construction Industry Federation (CIF), the Royal Institute of the Architects of Ireland (RIAI), the Society of Chartered Surveyors Ireland (SCSI) and the Building Materials Federation (BMF). The Council meets on a bi-monthly basis, and has regular meetings with other professional bodies, government and international stakeholders.

The overarching aims of the CIC are to deal with issues of common interest for the construction industry, and to act as the cohesive voice for the sector on high-level policy issues by engaging with stakeholders accordingly. The CIC complements the work of its member associations by undertaking strategic reports, engaging external expertise and providing a united voice on mutual areas of concern and interest.

CONSTRUCTION IT ALLIANCE (CitA)

CitA works to actively encourage the Irish construction sector to take full advantage of current and emerging information and communications technologies. The Alliance transmits the latest information on technology trends through monthly events and annual conferences with experts in key areas whilst providing networking opportunities with peers. CitA has robust links with the professional bodies and representative organisations of the built environment sector. These include ACEI, CIAT,

CIBSE, CIF, CIOB, Engineers Ireland, GMIT, ICES, IPFMA, IStructE, Law Society, LYIT, NDFA, OPW, RIAI, SCSI, as well as third-level academic institutions in Ireland.

OTHER INTERNAL COMMITTEES

In addition to the foregoing, ACEI is also a member of the following committees and participates in their activities:

- Construction Sector Group
- Irish Coalition of Service Industries
- Electrical Technical Council of Ireland
- Irish Inter Professional Association
- National Standards Authority Standing Committees

EUROPEAN & INTERNATIONAL AFFILIATIONS

ACEI is a member of the following overseas bodies.

EFCA

- Founded in 1992, EFCA (The European Federation of Engineering Consultancy Associations) is the only federation to represent the engineering consultancy industry in Europe. It comprises 31 member Associations from 28 European countries, representing over 10,000 firms, with more than one million employees in engineering and related services and annual turnovers in excess of €20 billion.
- Is a non-profit making and independent professional organisation committed to representing the profession in Europe and promoting engineering consultancy and related services.
- Represents the interests of the profession to the European institutions so that directives and regulations affecting the work of engineering consultancy and related services are fair to both the profession and society as a whole.
- Represents the interests of its members to lending agencies such as the World Bank and the European Bank for Reconstruction & Development, and to other international institutions.
- Requires all members to comply with its Code of Conduct governing the performance and quality of consulting engineering services.

In view of the importance of the EU in the Irish context ACEI has been actively involved in the work of EFCA since its inauguration. Individual members such as Donal Lynch and Jack Kavanagh have participated on EFCA task forces dealing with various EU directives i.e. health and safety, public procurement and related issues.

The ACEI Executive Director, Anne Potter, was also an EFCA Vice-President from 2000-2003, Kevin Rudden, ACEI Past President undertook the role of EFCA President 2017-2020 and assumed the role as a member of the EFCA Board of Directors 2021-2024 to complete the term of former ACEI Secretary General Sarah Ingle.

FIDIC

FIDIC (The International Federation of Consulting Engineers) represents the International business interests of firms belonging to national Member Associations of engineering-based consulting firms. The members of each national association comply with FIDIC's Code of Ethics which calls for impartial advice, competence and fair competition and endorse FIDIC's Policy Statements and Statutes.

Founded in 1913, FIDIC membership today numbers 100 Member Associations in different countries representing some 540,000 professional consulting engineers worldwide.

Membership of FIDIC is restricted to one Member Association per country and ACEI is the Irish member. However companies and organisations may join FIDIC as Affiliate or Sustaining Members if there is no national Member Association in their country.

FIDIC PUBLICATIONS

FIDIC publishes international contracts and agreements which are used by World Bank and other funding agencies. Given the rapidly changing marketplace and contractual relationships, i.e. Design Build (DB), Public Private Partnerships (PPP), Design Build Operate (DBO), etc. FIDIC has over the past few years revised its core suite of documents and developed additional contracts to meet the needs of the market. These are now being used by Irish public bodies including the Dept. of Environment, in relation to DB and PPP contracts.

ACEI is a strong supporter of FIDIC and given its relatively modest size, is quite active in the drafting of the various FIDIC contract and construction liability documents through the efforts of individual members including Dr Nael Bunni and Des Barry. The President and the Secretary General also participate in the FIDIC Annual Conference and General Assembly Meeting. Sarah Ingle, ACEI Secretary General, was a member of the FIDIC Advisory Council supporting the FIDIC Board during 2018-2020.

Over the years ACEI has developed excellent working relationships with a number of FIDIC Member Associations. ACEI is therefore able to obtain a rapid response to queries raised by members as well as facilitating networking opportunities or contacts for members in other countries.

ACEI / ISTRUCTE GRADUATE DEVELOPMENT COURSE 2024

ACEI ASSOCIATION OF CONSULTING ENGINEERS OF IRELAND

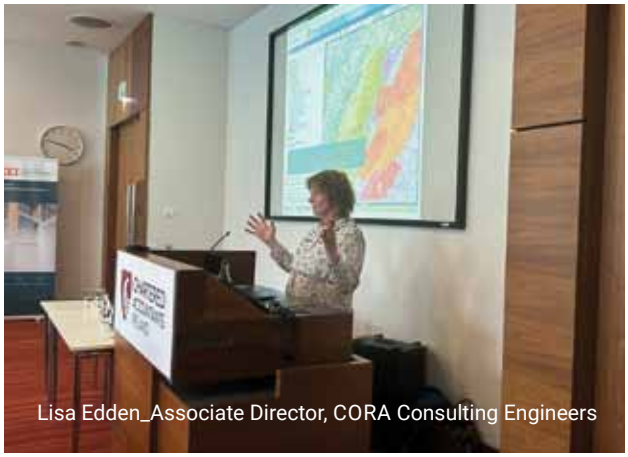
The Institution of StructuralEngineers

ACEI, in conjunction with IStructE, hosted their highly prestigious Graduate Development Programme in line with developments within the industry between October - November of this year.

The programme features industry leaders providing unique insight for graduate engineers with a least one year's experience across all disciplines including M+E / building services. It provides delegates with a structured, bespoke training programme to enhance their development and progression after graduation towards chartered engineer status. Qualified consulting engineering practitioners and others, expert in their respective fields, presented on a variety of topics throughout the programme. A total of 72 delegates attended.

The course was divided as follows:
Session One topics intended to improve the graduate consulting engineer's understanding of organisational, management, culture, and technical issues that arise in the performance of their day-to-day duties.

Session Two focused specifically on the practical aspects of design codes and construction methods, together with relevant case studies. In this session, the participants were separated into either a civil / structural or mechanical / electrical group.



Lisa Edden_Associate Director, CORA Consulting Engineers

Catherine O'Brien_Precast Operations Director, PUNCH Consulting Engineers

SESSION ONE SPEAKERS	
Anne Marie Conibear	Director, Egis Engineering Ireland Ltd and ACEI President
Marie-Claire Daly	Technical Director, PUNCH Consulting Engineers
Tim Murnane	Managing Director, PUNCH Consulting Engineers
James Barrett	Director, O'Connor Sutton Cronin
James Duggan	Director, Arup
Aonghus O'Keffee	Director, Roughan & O'Donovan
Matthew Theloke	Associate (M&E), O'Connor Sutton
Conall Boland	Senior Consultant, RPS Consulting UK & Ireland
Ailsa Doyle	Senior Environmental Consultant, Arup
Ian Anderson	H&S Specialist, Senior Project Engineer, Arup
Brian Kavanagh	Chairman, GARLAND
Michael Fleming	Associate Director, GARLAND
SESSION TWO SPEAKERS	
Ciarán Kennedy	Managing Director, BMCE
Jeremy Chipperfield	Senior Structural Engineer, Arup
Dave Holleran	Senior Engineer, Kilsaran Precast
Paul Kielty	Consultant
Donnachadh O'Brien	Managing Director, Donnachadh O'Brien & Associates
John Barlow	Chartered Engineer, Downes Associates
Dervilla Niall	TUD
Mark Dustan	Structural Engineer, Downes Associates
Victoria Janssens	Associate Director, Building Structures, Arup
Catherine O'Brien	Precast Operations Director, PUNCH Consulting Engineers
Anthony Mulligan	Technical Director, Roughan & O'Donovan
John O'Connor	Associate Director, Ground Engineering Discipline Lead, Arup
Lisa Edden	Associate Director, CORA Consulting Engineers
Anthony Horan	Director, O'Connor Sutton Cronin
Alan Nolan	Director, Varming Consulting Engineers
Conor Deane	Project Engineer, J.V. Tierney & Company Ltd
Paul Condron	Paul Condron Consulting Engineers
Stephen Walsh	Joint Managing Director, J.V. Tierney & Company Ltd
Richard O'Farrell	Managing Director, EDC
Mark McMullan	Senior Engineer, Arup
Colm Saul	Director, J.V.Tierney & Company Ltd
Kieran O'Neill	Health & Safety Manager, Waterman Moylan

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ACEI ASSOCIATION OF CONSULTING ENGINEERS OF IRELAND

ACEI ENGINEERING EXCELLENCE AWARDS 2024

ACEI PROJECT AWARDS 2024

The ACEI Engineering Excellence Awards were presented by James Kavanagh ACEI President 2023-2024 at the annual awards dinner in the InterContinental Hotel on 22 March

Engineering Excellence Awards

To stimulate excellence and innovation among ACEI members the annual Engineering Excellence Awards are presented for completed projects. These awards are conferred on ACEI member firms whose project is considered by the adjudicator as the best of those nominated in each category.

The awards this year demonstrate the commitment of ACEI member firms to pursuing projects that will benefit communities and the environment. It is also important that all projects are well planned and designed to address resilience, long-term sustainability and societal impacts in line with the association's sustainability vision and commitment to climate action.

Sincere thanks are extended by ACEI to Richard Crowe, ACEI President 2016; Ciaran O'Connor, OPW and Paul Martin, CIBSE Ireland for their painstaking work in adjudicating the 2024 Engineering Excellence Awards and to Derrick Edge, ACEI President 2005 for his adjudication of the ACEI Future Leader Award.

Winner – Project of the Year

T.J. O'Connor and Associates and J.B. Barry and Partners, supported by Royal HaskoningDHV for **Phosphorus Fixation Project**

Winner – 2024 Project of the Year

Marcus Fagan, Director, Egis; Paul Janssen, Director, Royal HaskoningDHV; Ronan Doyle, Project Manager, T.J. O'Connor & Associates and Gerry O'Looney, Project Resident Engineer, Egis accept the award for **Phosphorus Fixation Project**

Winner – Civil / Medium Category

Colm O'Riordán and Uinsinn Finn, Galway City Council; Rob Ryan, Arup; Sean Harrington, Sean Harrington Architects and David Greally, Galway City Council accept the award for **Salmon Weir Pedestrian and Cycle Bridge**

Joint Winner – Civil / Large Category

Maurice O'Donoghue, Director, Barry Transportation and David Pentony, Jons Civil Engineering accept the award on behalf of Egis with Barry Transportation for **N22 Baile Bhúirne to Macroom Road Development (Design & Build)**

Joint Winner – Civil / Large Category

Sean Callery, Cork County Council; Marguerite Murphy and Joe Shinkwin, Mott MacDonald Ireland accept the award for **N22 Baile Bhúirne to Macroom Road Development**

Winner – Structural / Medium Category

Michael Fleming, Associate, Brian Kavanagh, Chairman and Kevin Rudden, CEO, GARLAND accept the award for **16 St. Stephen's Green**

Winner – Structural / Large Category

Karl Townsend Smyth, Anthony Byrne and Richard Osborne, Waterman Moylan Consulting Engineers accept the award for **Clerys Quarter**

Joint Winner – Mechanical & Electrical / Medium Category

Joe Greene, Chairman and Keith Murphy, Project Director, Varming Consulting Engineers accept the award for **Roscommon Hospice**

Winner – Mechanical & Electrical / Large Category

Declan Barry, Director, Patrice McVeigh, Associate and Stephen Walsh, Mechanical Engineer, O'Connor Sutton Cronin (M&E) accept the award for **Glencar House**

Winner – Sustainability / Built Environment Category

Ian Fennell, Bartra; Rory Burke, BREEAM AP & LEED Associate, J.V. Tierney & Company Limited and Ryan Gillespie, Architect accept the award for **Poplar Row Social Housing**

Winner – Sustainability / Natural Environment Category

Seosamh Ó Fátharta, Associate and Paddy Scally, Director, Ryan Hanley accept the award for **Coolatee Integrated Constructed Wetland**

Winner – Project Management Category

Brian Kavanagh, Chairman, and Kevin Rudden, CEO, GARLAND accept the award for **ALAT Free Economic Zone**

Winner – Overseas Category

David Hyland, MJH; Shane Linehan (BMCE UK) and Ciarán Kennedy (BMCE) accept the award for **College Road, Croydon, London**

Winner – Innovation Category

Catherine O'Brien, Precast Operations Director, and Aidan O'Connell, Director, PUNCH Consulting Engineers accept the award for **Precast Innovation**

Winner – Microfirm Category

David O'Connor, DMOD Architects and Ken Moriarty, Managing Director, Torque Consulting Engineers accept the award for **Larian Studio Games**

Highly Commended – Microfirm Category

Norman Irvine, Director, and Richard McCrae, Director, McCrae Consulting Engineers accept the award for **St. Michael's College Redevelopment**

James Kavanagh presents the 2024 ACEI President's Award to Damien Owens, Director General, Engineers Ireland

ACEI ENGINEERING EXCELLENCE AWARDS: 2024 PROJECT OF THE YEAR

WINNER PROJECT OF THE YEAR: T.J. O'CONNOR AND ASSOCIATES AND EGIS ENGINEERING IRELAND LIMITED, SUPPORTED BY ROYAL HASKONINGDHV – PHOSPHORUS FIXATION PROJECT

Phosphorus Fixation Project building

T.J. O'Connor and Associates and Egis Engineering Ireland Limited, supported by Royal HaskoningDHV were engaged by Uisce Éireann for the upgrade of the Ringsend Wastewater Treatment Plant. The upgrade provides for biological phosphorus removal, as required, to enhance the water quality in Dublin Bay. Globally, phosphorus is a finite and dwindling resource. The Phosphorus Fixation plant at Ringsend creates a circular economy by diverting a potential waste stream to create a valuable slow-release organic agricultural fertiliser product, reducing the requirement for an unsustainable alternative in rock phosphate. The works were commissioned in 2023 and will provide for recovery of up to 4,000 tonnes of the product per year. It directly addresses four of the UN's Sustainable Development Goals, namely: Clean Water and Sanitation; Industry, Innovation and Infrastructure; Responsible Consumption and Production; and Life Below Water.

The primary objective of the Phosphorus Fixation Project was to identify and implement a means of removing increased phosphorus from the sludge line due to increased loadings and enhanced treatment processes.

This objective arose from the overall upgrade of the treatment plant to an enhanced biological phosphorus removal plant using using Nereda© Aerobic Granular Sludge Technology. As increased phosphorus is removed from the water stream in this process, it would present itself in the sludge stream. If the phosphorus remained in the sludge, it would require a significant increase in land spread to comply with existing nutrient management plans. Alternatively, if the phosphorus remained in the sludge liquors, it would return to the inlet works and adversely impact effluent discharge quality standards. This recirculation of phosphorus would also introduce a risk of spontaneous struvite formation which would present as scaling within the plant pipework and equipment, which would necessitate increased maintenance and replacement measures.

The sludge line at the Ringsend Wastewater Treatment Plant comprises three thermal hydrolysis process lines which treat a mixture of primary sludge and thickened surplus activated sludge; four digesters which break down the sludge post thermal hydrolysis, and three thermal dryers which dry the sludge to approximately 95% dry solids content. In 2015, we developed an outline design for the overall wastewater treatment plant upgrade. This included a new facility that would 'fixate' the phosphorus and remove it from the process to prevent any recirculation issues outlined above. We identified two potential solutions for this new facility. One was to remove the phosphorus from the sludge itself and the other from the liquors from the dewatering centrifuges both prior to the thermal hydrolysis and thermal drying stages. We undertook a cost benefit analysis of the proposed options and determined that while the initial capital expenditure for the sludge liquors option was more expensive, the revenues arising from the sale of the product would exceed those from the sludge solids option. The main reason for this is that the product from the sludge liquors would not be considered a biosolid, but a fertiliser.

The facility was commissioned in 2023 and is now producing a slow-release organic fertiliser which provides a revenue stream to the client to offset the running costs of the plant. This achieves the client's primary objective and also achieves secondary and tertiary objectives of creating a circular economy and offsetting operation costs.

Reactor installation

The project information was managed in compliance with International ISO19650 BIM standards. This was achieved through use of a bespoke Microsoft SharePoint Common Data Environment (CDE). The CDE and associated workflows were used in conjunction with Autodesk Construction Cloud to facilitate full collaborative information management processes within the multidisciplinary joint venture. These tools allowed seamless collaboration across all parties throughout the design development and tendering phases. On contract appointment, a bespoke SharePoint Contractor CDE was set up to manage all information during the construction phase.

Product area

Reactor installation

Reactor lift

The main complexities encountered were the extremely congested site and installing the facility within an operational plant. The spatial constraints required the building to be compact but still provide sufficient working areas and provision for future expansion. The reactor stands 16m tall and the building was designed such that a second reactor could be installed in the future. Undertaking the works in a live plant required close co-ordination with the existing operator via daily whiteboard meetings, weekly co-ordination meetings, inviting comments on RAMS, and participation of all parties in constructability and HAZOP workshops.

The innovation aspects of the project are evident as the plant is the first technology of its kind in Ireland and the largest such facility in Europe.

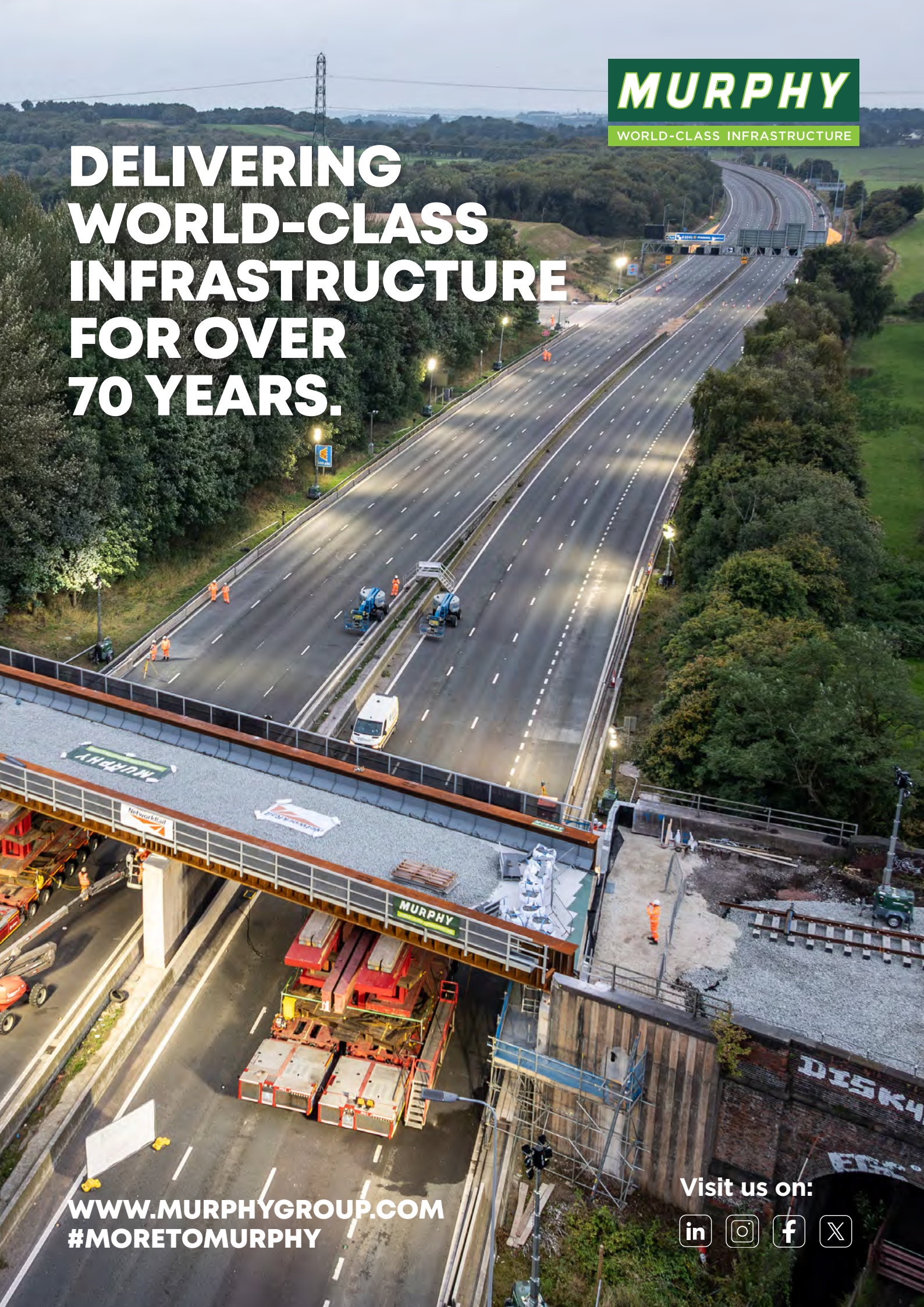
A site supervision team of experienced professionals was assembled for the execution of this project, comprising of civil, MEICA and structural professionals. The Employers Representative team under the guidance of experienced project managers, comprising of all disciplines across the JV, interacted extensively both on site and remotely with all parties in the successful execution of the project. Lessons learned and cost control workshops were a regular feature on the project.

Health and safety was managed proactively on site with all stakeholders adopting a collaborative and inclusive approach to the importance of safety on such a congested site. HAZOPs and CHAZOPs were executed throughout the project with the aid of 3D models, which provided a complete visualisation of the ultimate finished product. As a result, the project had an excellent safety record with over 76,000 hours worked and no lost time or first aid accidents recorded.

The Project Management Institute's PMBoK methodologies were employed for earned value management and monitoring the programme during construction. While most issues that arose were mitigated, there was a slight cost overrun due to the global supply chain crisis. The client recognised that this was unavoidable and introduced an ex-gratia extension of time in line with government guidelines.

The advanced warning mechanism in the FIDIC contract was used effectively to mitigate claims which was evident in the agreed final account. The client was able to recover some costs incurred from another entity who requested additional works. Allowing for this recoverable amount, the total increase on the contract sum was only 0.25%.

Following its Project of the Year win at the ACEI Engineering Excellence Awards, the project was nominated for a FIDIC Global Infrastructure award. It was the only European project nominated and won in the small to medium category.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ACEI ENGINEERING EXCELLENCE AWARDS: CIVIL – LARGE

JOINT WINNER: EGIS (FORMERLY J.B. BARRY & PARTNERS) – N22 BAILE BHÚIRNE TO MACROOM BYPASS PROJECT

S02C Bridge on N22

The N22 Baile Bhúirne to Macroom bypass, which opened in November 2023, is a major piece of infrastructure that has delivered numerous benefits to communities in the local area, connecting Cork and Kerry. The project includes 22km Type 2 dual carriageway, a roundabout, three grade-separated junctions, over 100 structures (including 21 road bridges, 21 accommodation structures, and culvert structures), four river bridges, and 40 local road improvements. Additionally, the project involved one of the deepest cuts ever excavated in Ireland, with a depth exceeding 40 metres, and an earthworks volume of 2.75 million cubic metres. The resulting benefits include reduced journey times, less congestion (bringing enhanced wellbeing), town centre living and cleaner air for the communities along its route.

S02C Bridge on N22

SO2C Bridge during construction

PROJECT OVERVIEW

Egis in Ireland, (formerly J. B. Barry and Partners / Barry Transportation) was appointed by Jons Cradock JV as the lead designer and to provide site design supervision support to the contractor on a design and build form of contract over a four-year commission. The project required full management of all stakeholder inputs into the design, necessitating a strong collaborative working process to deliver the project on time, despite challenges such as the Covid-19 pandemic and a global shipping and commodity price crisis.

DESIGN COORDINATION AND STAKEHOLDER COLLABORATION

As the lead designer, Egis coordinated all design across its offices in Dublin, Castlebar, Limerick, and Cork. The coordination extended to sub-consultant designer inputs for elements like landscape, environmental planting, and public lighting. Collaboration with independent third-party design review organisations, stakeholders, and the contractor's suppliers ensured that the design met and exceeded client requirements. This collaborative approach was instrumental in the timely completion of the project, despite the impact of Covid-19 restrictions on the construction industry.

Egis delivered a design program aligned with the contractor's construction program. With over 300 construction staff working on-site during peak times, a dedicated management team was essential. The team undertook all design/document control, health and safety, and environmental assessments required for each design package and their incorporation into the works.

Regular coordination meetings were held with Jons Cradock JV, Cork County Council (CCC), and Mott Mac Donald (employer's representative for CCC) throughout the commission to ensure that the design met all requirements. Concerns or inputs from these meetings were considered and incorporated into the design as necessary, without adversely affecting the delivery program for the project.

AWARD-WINNING CIVIL DESIGN

The N22 project was awarded by ACEI for its civil design, reflecting in particular, achievements in design of the crossings of the Laney and Sullane Rivers and the response to environmental considerations in each. Initially, both bridges over the Laney and Sullane rivers were envisaged as steel composite decks, as it was assumed the spans of 49m and 48m respectively were beyond the reach of conventional prestressed concrete beams. However, the design developed by Egis, in collaboration with Banagher Precast, achieved this span using prestressed concrete beams, returning significant benefits for the structures' whole-life maintenance.

By reducing the normal W19 beam spacing from 4 meters to 2.8 meters, the team succeeded in keeping the individual beams' stress within normal W-Beam design limits without necessitating modifications to standard W19 strand positions. Using prestressed beams allowed the bridge to be fully integral, benefiting from moment

N22 mainline and parallel side roads and access roads, S02C

Ummera underbridge in foreground and River Laney Bridge in background

redistribution from span to support. This reduced the span sagging moment on a composite structure compared to a simply supported structure. The integral bridge design also reduced whole-life maintenance costs by eliminating the need for maintenance and replacement of bridge joints and bearings.

ENVIRONMENTAL CONSIDERATIONS

The project presented significant environmental constraints, particularly concerning the freshwater pearl mussel habitat and populations. No instream works were permitted as part of the design. The team delivered a solution that retained the existing riverbank to allow for the passage of mammals beneath the bridge and ensured that the existing flow regime and channel dimensions were maintained for each watercourse. This approach mitigated any possible adverse effects on fish and river ecology.

Flood culverts between River Sullane and Inniscarra Reservoir at the eastern tie-in of the scheme

Considering the freshwater pearl mussel population, the team coordinated an advanced-works pearl mussel survey with an expert advisor. They established the baseline and construction water quality trigger levels, agreed on the associated turbidity trigger levels, and established in situ turbidity monitoring locations. A surface water runoff and sediment control plan was also implemented to protect the pearl mussel habitat.

INNOVATIONS IN SUSTAINABLE DESIGN

The N22 project incorporated several innovations within its civil design, site management, and environmental planning. The team's consideration of sustainability objectives, reducing carbon emissions, protecting important ecologies, and operating within stringent health and safety parameters presented by a complex project environment contributed to the overall success of the project.

In conclusion, the N22 Baile Bhúirne to Macroom project stands as a testament to the capabilities of Egis Bridge team and their collaborative approach to design and construction. The project not only delivered substantial infrastructure improvements but also set new standards in environmental protection and sustainability in civil engineering.

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ACEI ENGINEERING EXCELLENCE AWARDS: CIVIL – LARGE

JOINT WINNER: MOTT MACDONALD IRELAND – N22 BAILE BHÚIRNE TO MACROOM ROAD DEVELOPMENT (N22BBM)

N22 Mainline at Coolnacaheragh Ambush Site – looking east

The N22 Baile Bhúirne to Macroom Road Development (N22BBM) comprises 22km of new Type 2 dual carriageway on the N22 primary route between Cork and Tralee, bypassing the towns and villages of Macroom, Baile Bhúirne and Baile Mhic Íre in Co. Cork. The route is constructed primarily offline of the existing N22 through challenging terrain which includes hilly land with rock outcrops at the western end, and low-lying agricultural land at the eastern end including a crossing of the Carrigadrohid Reservoir. It also includes three compact grade-separated junctions, one roundabout, four major river crossings and 108 structures.

Mott MacDonald Ireland (MM) was commissioned in 2018 to act as technical advisor (TA) and employer's representative (ER) for the client, Cork County Council (CCC), and to deliver all services necessary for the construction and implementation of the scheme in accordance with Transport Infrastructure Ireland (TII) Project Management Guidelines Phase 5 – 7.

Services provided by Mott MacDonald Ireland:

- Review and update of design and build (D&B), tender documents, business case and all project appraisal deliverables in accordance with TII Project Appraisal Guidelines.

Coolcower roundabout junction / Carrigadrohid Reservoir – looking north

Gurteenroe compact grade-separated junction – looking west

- The management and execution of the tender process for the appointment of a contractor for the design and construction of the scheme.
- The monitoring and independent design review of the works on behalf of CCC by means of checking the contractor's works for compliance with the Works Requirements and reporting on same to CCC.
- Contract administration on behalf of CCC of the design and construction activities associated with the development and completion of the scheme.
- The closeout activities associated with the development and completion of the scheme.

SCHEME BENEFITS

We are proud to have worked with CCC to deliver this key civil infrastructure project for the south-west region. Before this project was opened, the existing N22 had a poor safety record and was reported to be the most prone road for fatal and serious collisions on the National Road Network between 2014 and 2018. Traffic volumes on the existing route, acting as the primary connection between Cork and Kerry, led to unreliable journey times which impacted economic growth in the region. Locally, the residents of Macroom, Baile Bhúirne and Baile Mhic Íre were impacted by air and noise issues daily.

The opening of the new road addresses these existing problems and provides the following opportunities and benefits:

- Enhanced regional connectivity in the south-west, stimulating compact and sustainable growth in line with national planning and development objectives.
- An improved N22 transport route linking the region to domestic and international markets through Cork Airport and Port of Cork.
- Reduced traffic congestion providing significant benefit to the local economy and tourism industry in Cork and Kerry.
- Enhanced social and environmental benefits in urban centres of Macroom, Baile Bhúirne and Baile Mhic Íre through improved noise and air quality.
- Enhanced road safety for road users through provision of high-quality Type 2 dual carriageway and grade separated junctions.
- Greater opportunities for active travel routes between local centres, promoting modal shift for shorter journeys and reduced transport-related carbon emissions.

DELIVERING INNOVATION AND TECHNICAL EXCELLENCE

Tender Process – MM managed and executed a robust tender process which included a quality assessment (30%) to ensure a high-quality end-product was delivered by the successful D&B contractor. The remainder of the assessment related to commercial aspects divided into three parts – lowest price (25%), delivery risk/value for money (40%) and comparative cost (5%).

Construction Monitoring – MM led a works monitoring team comprising 22 site-based staff, who along with

S02C Bridge / earthworks cut No.1 – looking west

S03 Bohill River Bridge – looking west

S26 Laney River Bridge – looking east

the office-based technical review team, ensured the works were constructed in accordance with the Works Requirements and the contract. A SharePoint based workflow process was created to monitor design submissions received under certificate, response dates and status in real time which assisted resource planning and tracked outstanding design to be submitted by the contractor.

Environmental Risks and Challenges – The Kerry Slug and Freshwater Pearl Mussel (FWPM), (two particularly vulnerable protected species), were present within the footprint of the development. While measures were taken by CCC pre-construction to translocate the Kerry Slug, close monitoring by the ER team was required during construction to ensure no more slugs were encountered. The ER team worked closely with the CCC malacologist and National Parks & Wildlife Service to ensure successful translocation of the slug where necessary. To mitigate against potential impacts on the FWPM, we prescribed turbidity monitors to be installed upstream and downstream of the works. These were 'live-streamed' to a data portal with alarms set up for breaches in prescribed thresholds during nearby construction activities.

S28 Sullane River Bridge - looking east

Major River Crossings

S03 Bohill River Bridge – MM carried out design review, certification and construction monitoring of the S03 Bohill River Bridge – a two-span (40.5m & 80.5m) composite steel girder structure which is the longest bridge on the N22BBM scheme. The bridge was constructed using an innovative push-launch technique over the Bohill River.

S26 Laney River Bridge – Originally envisaged to be a steel structure due to the 50m span required, we worked closely with CCC, TII Structures Department, and the contractor's main designer (Barry Transportation), to develop a prestressed concrete option proposed by the contractor (Jons-John Cradock JV). As TA, we reviewed the finite element analysis prepared by the contractor's designer to ensure the design proposal for the prestressed concrete option was acceptable to CCC and TII. As a result, S26 Laney River Bridge holds the record for the longest, single span, (49.9m), prestressed concrete bridge in Ireland and the UK - a testament to pushing engineering boundaries in a collaborative working environment.

S28 Sullane River Bridge – MM carried out design review, certification and construction monitoring of the S28 Sullane River Bridge – the second longest, single span, (48.75m), prestressed concrete bridge in Ireland and the UK (after S26).

New Technologies for Carbon Benchmarking – The ER team used the 'GeoPal' mobile application to record plant and labour employed by the contractor throughout construction. This provided an easy-to-use tablet interface tool for site personnel to collect live geotagged information for plant and labour for upload to a CCC hosted dashboard. This data was subsequently available for use by TII in developing a series of carbon benchmarks for N22BBM.

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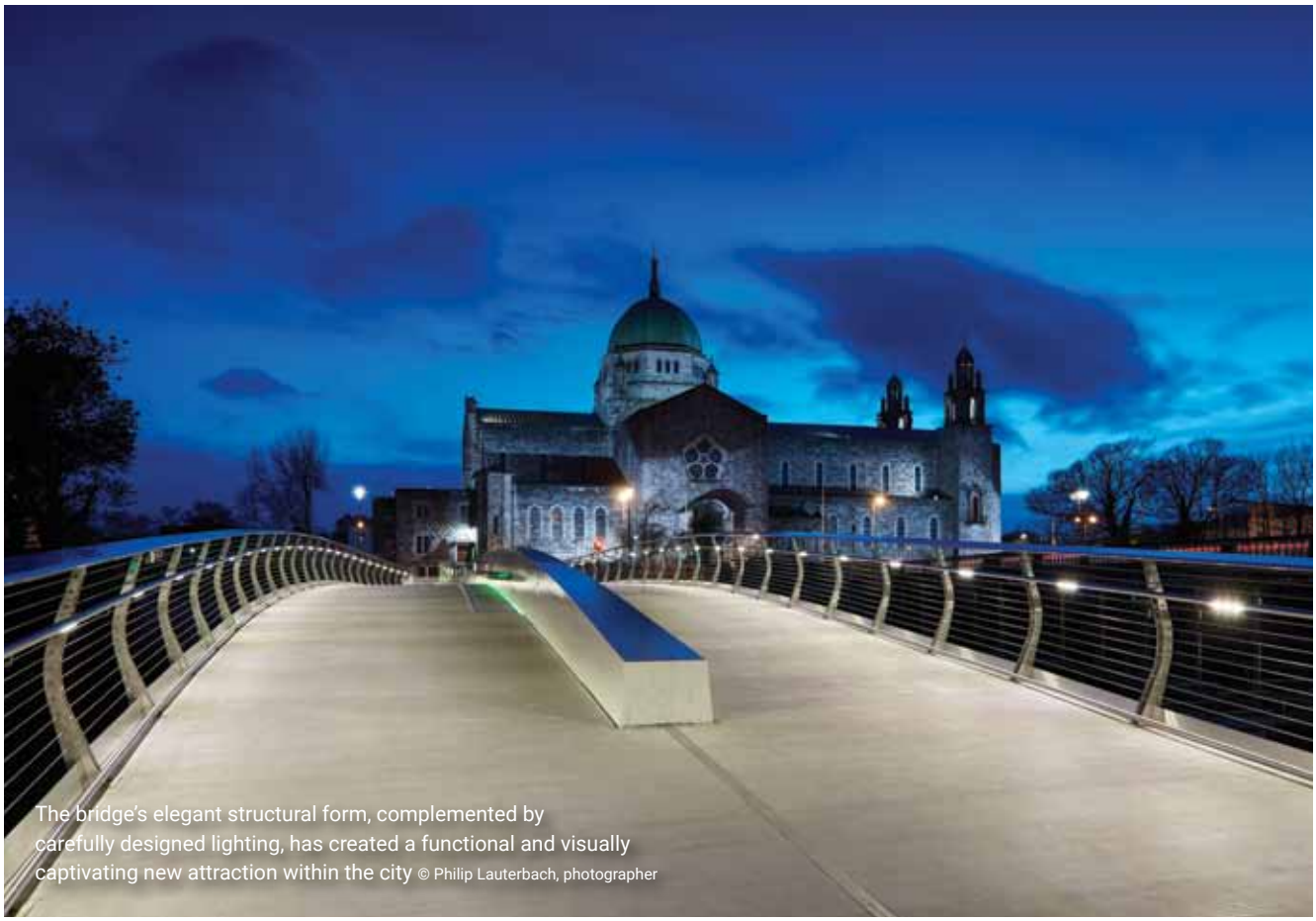
ACEI ENGINEERING EXCELLENCE AWARDS: CIVIL – SMALL / MEDIUM

WINNERS: ARUP – SALMON WEIR PEDESTRIAN AND CYCLE BRIDGE



The bridge's elegant structural form, complemented by carefully designed lighting, has created a functional and visually captivating new attraction within the city © Philip Lauterbach, photographer

DROICHEAD AN DÓCHAIS

Droichead an Dóchais, a new pedestrian and cycle bridge crossing the River Corrib in Galway City, was officially opened on May 26, 2023, by the Mayor of the City of Galway, Cllr. Clodagh Higgins and Minister for Transport, Eamon Ryan T.D.

The bridge, translating as Bridge of Hope, is located just 24m from the Salmon Weir Bridge, an historic and important river crossing for traffic in Galway city centre. Droichead an Dóchais, which caters for over 10,000 users daily, stands as a beacon of modern engineering and sustainable urban design and has already become a landmark in Galway City.

Galway City Council appointed Arup, Seán Harrington Architects, AtkinsRéalis and Jons Civil Engineering Ltd. as the design and construction team. The bridge represents a strong multidisciplinary approach to creating a safe, functional and aesthetically pleasing development that respects the historical and environmental context of its location.

The approach spans from the west and east are paved with flamed Kilkenny limestone, which has a high skid resistance. Spanning 51 metres, unsupported above the watercourse, the bridge's semi-elliptical arch, steel central spine beam and transparent handrails create an illusion of the structure hovering over the river. Age-friendly

Spanning 51m, the bridge's semi-elliptical arch with a steel central spine beam and transparent handrailing creates an illusion of the bridge hovering over the river © Arup

seating has been installed, offering users an opportunity to rest and to take in the stunning views afforded by the surrounding landscape, including Galway Cathedral, Mercy Convent and the existing Salmon Weir Bridge.

MULTIDISCIPLINARY EXCELLENCE

As lead designers, Arup provided structural bridge design, planning, environmental and geotechnical consulting, lighting, health and safety and landscape architecture services.

In collaboration with Seán Harrington Architects, Arup developed the structural and architectural concept as well as the environmental evaluation from concept stage. Arup also brought the project through options assessment, public consultation and planning, which was granted in August 2021. AtkinsRéalis delivered the detailed design and construction supervision, ensuring the project was completed to the highest standards.

The bridge provides a separate, safe crossing for pedestrians and cyclists, removing conflicts between vehicles and pedestrians/cyclists on the existing Salmon Weir Bridge. It strikes a balance between preserving the existing pedestrian and cycle routes and respecting the historical significance of the existing bridge as a protected structure.

INNOVATIVE PUBLIC ENGAGEMENT

Given environmental sensitivities, the bridge design balanced visual impact and heritage. Arup led the preliminary feasibility study, options assessment, concept and preliminary design phases, taking into consideration the significance of the project to the people of Galway and the city's wider transport strategy.

Much of the public consultation was held during the Covid-19 pandemic and required an innovative approach. Arup's design team used Virtual Engage, a proprietary web-based, interactive environment tool that allowed stakeholders to access information from anywhere and at any time. This included an interactive, 360-degree, virtual exhibition hall, which facilitated public information sharing and ensured that the community remained informed and engaged throughout the project.

INTEGRATING THE BRIDGE WITH THE LANDSCAPE

The design of the bridge is both elegant and functional. The central river span features a single arched 'spine beam' that springs from below the deck and protrudes through it from quarter span to quarter span. This spine acts as the backbone of the bridge, from which the cantilever beams support the deck, and handrail posts that project like the ribs of a fish. The bellying out of the deck from the central spine is reminiscent of a salmon's profile, reflecting the culture and heritage of salmon fishing in the River Corrib.

The structural system of the main span is a fully integral, single span with variable depth, central steel box girder and variable width cantilevered walkways. The concept adopts a clever strategy to integrate the landings with the existing Persse's Distillery River and Friar's River embankments without dramatically altering the composition and levels of the natural riverside amenity.

Flared approach spans integrate the bridge with the quays, drawing over 10,000 pedestrians and cyclists daily © Arup

Droichead an Dóchais provides a new public space for leisure and a focal point for tourists, forming a link from the cathedral to the city centre © Philip Lauterbach, Photographer

The bellying out of the deck from a central backbone spine is reminiscent of a salmon's profile
© Philip Lauterbach, Photographer

The beam is at its highest at midspan, lowering along the length and going under the walkway at supports. The apparent slenderness of the structure is primarily predicated on the central position of the spine beam, but also in the variation of the position relative to the walking level. By utilising the three span arrangement and providing a full post-tensioned connection to the foundation caps on both intermediate supports, hogging at midspan and structural deflections and vibrations under live load are minimised.

The transition of the central spine beam to below deck and its connection to a fully integral abutment creates a system that behaves as a fully constrained beam in service, allowing for increased slenderness. The small arching effect of the central spine beam further increases the stiffness of the system. The two approach spans are integral with the central supports, forming a structural system that provides high efficiency and durability due to the lack of bearings and expansion joints.

The bridge represents a strong multidisciplinary approach to creating a safe, functional and aesthetically pleasing crossing facility that respects the historical and environmental context of its location © Philip Lauterbach, Photographer

The culmination of these design elements positions the bridge as more than a piece of transport infrastructure; it is an architectural and urban amenity, a landmark development and a focal point in Galway City which enhances the quality of life for residents and visitors alike.

SUSTAINABILITY IN DESIGN AND CONSTRUCTION

Sustainability was a core objective from the outset. The bridge encourages sustainable travel in Galway, helping to reduce dependency on private cars in line with national transport and planning policies. The design also considered environmental, flooding and visual sensitivities, ensuring that the bridge is respectful of its beautiful setting.

The bridge's elegant structural form, complemented by carefully designed lighting, has created a functional and visually captivating attraction within the city. Strip lighting above the deck illuminates the slender spine beam and decking, while energy-efficient LED fittings embedded into the handrails enhance visibility and highlight the bridge's form, all while minimising light spill on the watercourse below.

Constructability and environmental protection shaped the bridge's form, ensuring that the existing watercourses, designated as a Special Area of Conservation (SAC), remained undisturbed throughout construction. Most of the steel frame was prefabricated offsite by Thompsons Steelwork in Carlow, transported to Galway in nine sections and assembled within the adjacent cathedral car park. The main span installation was accomplished with a 650-tonne mobile crane during a single overnight road closure, minimising disruption.

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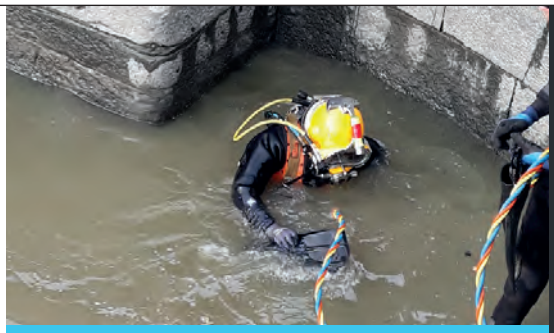

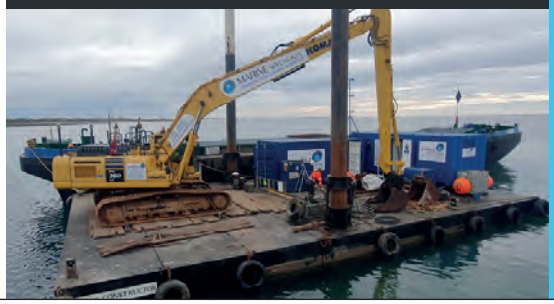

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ACEI ENGINEERING EXCELLENCE AWARDS: STRUCTURAL – LARGE

WINNER: WATERMAN MOYLAN CONSULTING ENGINEERS – CLERYS QUARTER

O'Connell Street elevation

The regeneration of the historic and beloved Clerys Department Store building on O'Connell Street in Dublin's city centre breathes a new lease of life into this culturally significant building and ensures it will continue to be an integral part of Dublin city life for future generations. The original historic core of the building has been retained and lovingly restored, accommodating retail uses, while later additions to the structure have been replaced to create modern office space and a dramatic rooftop leisure destination.

The Clerys' building, a protected structure, was originally constructed to replace buildings damaged during the 1916 Rising. Of Neo-Classical design, standing opposite the GPO, it has become a landmark in its own right and is an important element of a greater collection of early 20th-century buildings that form much of the character of O'Connell Street. For decades it was the premier department store in the city and the Clerys' clock was an oft-referenced meeting place. However, its place in the city's life faded as new retail destinations emerged over the last 30 years.

HISTORIC BUILDING

The original building was one of the earliest reinforced concrete uses in construction in Ireland. The design approach adopted at the time was the Hennebique reinforced concrete method – named after French engineer, François Hennebique, who developed the system in the late 1800s. A series of extensions were added to the original building between the 1940s and the late 1970s. These elements of the building were generally steel structures and were very ad hoc. It was decided at an early stage in the project, following extensive

Rooftop steelwork

Restored floor, new columns visible next to façade

investigations confirming the make-up and capacity of the building structure, that these later additions would be removed and the building stripped back to the original concrete frame and Portland stone façade. The intention was to restore the protected structure back to its original architectural expression. Once completed, the building was then vertically extended with new levels 03, 04 and 05, new concrete cores at levels 00, 01, and 02 and a bespoke curved roof structure over the entire building.

DEMOLITION CHALLENGES

Sensitive demolition work was necessary to avoid damage to the historic structures, plasterwork and stonework that was to be retained, requiring Waterman Moylan to take the lead in developing a demolition strategy and designing various temporary support elements. Existing masonry stair cores, providing overall stability to the building, were demolished only after a temporary bracing system was installed. Other temporary works designed by Waterman-Moylan included internal propping systems at the end of demolition lines and other local support systems designed to protect vulnerable retained elements such as ornate plasterwork and the iconic Clerys' tearooms. The removal and replacement of the third and fourth floors behind the Portland stone O'Connell Street and Sackville Place façades required temporary internal support framing, which steelwork was designed to be subsequently integrated into the steel frame required for the new floors above.

COMPLEX STRUCTURAL CHALLENGES

The detailed structural assessment of the existing Clerys building established that the structure was not capable of supporting the planned three-floor, vertical, extension. As such, an independent structural frame supporting the new floors had to be needled through the existing building floors onto new foundations. The tight 6-6.5m grid on the existing lower floors severely limited the opportunity to introduce new vertical elements. The new column locations could only be positioned to the perimeter behind existing columns to the façade and at four locations internally with two new cores providing the only other vertical elements for new structural support. The proximity of new columns to existing framing and associated foundations meant that each new footing was unique, and needed to cantilever close to or over existing footings. This, in conjunction with a limited head height in the basement for installation, led to a steel micropile solution being selected as the most practical solution. Each foundation was highly bespoke with raking piles included under the new vertical core structures to transfer lateral loads to the substrata beneath. In total, 600 steel piles were installed on the scheme.

The vertical columns supporting the new floors could only be located over the existing historic concrete floor beams, on the lower floors. To avoid damage to these beams, due to axial shortening of the columns and settlement in the new foundations as the structure above was being constructed, a bridging detail was developed to maintain the stiffness of the columns, as they passed around the existing concrete beams. The new steel columns were formed from plated sections as the beams on each floor that required bridging did not align as would be expected

Restored internal staircase

in more modern construction. One benefit of this was that the increased column size resulted in reduced temporary restraint requirements prior to stitching the columns into the existing floor plates after the superstructure works for the additional floors was complete and dead load settlement had occurred.

The new floors have 15-18m clear spans, maximising flexibility of use and commercial appeal. Transfer beams at Level 03, required to support setbacks on Levels 04 and 05, consist of stitched double beams to maintain a structural depth consistent with the remainder of the floor plate. Level 04 incorporates an elevated viewing deck on cantilevered trusses supporting new precast steps behind the O'Connell Street, Portland stone façade. This structure acts as a lateral restraint to the historic façade, tying it to the diaphragm and new lateral stability elements at this level. The new venue space at Level 05 is encased by a curved roof formed from steel cellular beams which span from the perimeter of Level 04 up past Level 05 to a spine of steelwork at roof level, which in turn cantilevers to both façades. The façade beams support a secondary steelwork frame with a curved glazed collar on both elevations.

BESPOKE DETAILING

The impressive architectural intent could only be achieved through extensive detailing of the interface of the new and the existing structures. The existing Clerys' building incorporated several changes in level to the perimeter, internal historical modifications and upgrading works, and irregular geometries. Numerous bespoke details were required to overcome these inconsistencies and to communicate effective strategies to the main contractor and subcontractors, including cast-in plates, collar plates, anchor plates for the ends of the retained reinforced concrete beams, bespoke stitching details to the existing slabs and façade anchorage systems. Addressing the challenges of this project required us to adopt a wide range of steelwork solutions to achieve design intent in an efficient manner. These solutions included the use of rolled columns and beams, plated column sections, plated beams, composite cellular beams, precambered steelwork, Slimfor beams and ComFlor systems.

The corner of Sackville Place and Earl Place

BUILDING MODELLING AND ANALYSIS

From project inception, BIM was utilised to model and design the works. Digital models of the existing structures were constructed from digital survey data and formed the basis on which the demolition and new build was sequentially modelled to assess the impact of the works on the retained structures at all stages and to design both temporary support structures and the permanent works. The models were built on a Revit platform integrated with the robot analysis and design package.

EMBODIED CARBON

To maximise sustainability of the project through reuse of existing, in conjunction with a requirement for conservation, meticulous investigations and desktop studies were undertaken to understand the nature of the existing structures. This was followed up with load testing to verify the floor and column capacities that had been back-calculated. Integration of as much of the existing as possible into the new framing system was a key design driver. By minimising the material usage on the project, pushing the designs into higher utilisations and adoption of composite designs, and by specifying more sustainably sourced materials, such as structural steel sourced from recycled content via Electric Arc Furnace, and selection of lower embodied carbon materials, we were able to drive the embodied carbon figures much lower than normal for similar structures.

OUTCOME

The reinvention and restoration of the Clerys building and the creation of Clerys Quarter is set to lead the revitalisation of the long-neglected eastern side of Dublin's premier street. This extremely challenging project has been successfully delivered through patient and careful collaboration with client, design team, contractors and specialists. We were privileged to have been a core part of the development team from conception and planning through to realisation.

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ACEI ENGINEERING EXCELLENCE AWARDS: STRUCTURAL – SMALL/ MEDIUM

WINNER: GARLAND – 16 ST. STEPHEN'S GREEN

16 St .Stephens Green - protected structure

Our brief was to turn No 16 into a cutting-edge, ultra-contemporary building that retains its rich and sophisticated heritage. Originally built in 1779 as four-storey Georgian townhouse and converted to office use with a rear four-storey, reinforced concrete structure constructed in the 1960s. The original building is now a protected structure.

To maximise the site's potential, two heavy, reinforced concrete office development floors were removed, along with the heavy brick cladding and four new lightweight floors added.

The result is a magnificently restored Georgian building, overlooking the beautiful St. Stephen's Green, linked by a stunning glass bridge to an impeccably finished, seven-storey office development.

October Investments invited GARLAND to quote for the project as we have completed many successful projects together over the last 25 years.

GARLAND was engaged as civil and structural engineers and project supervisors design process, under SE 9101 from project inception to building handover. We examined

Reception area

the feasibility of various options to maximise the site with the client and design team. Various schemes were prepared for the rear office development.

Significant investigations were required at feasibility stage to determine the condition and capacity of individual structural elements. We contributed to the planning application. As the building was a protected structure, significant details were required of all structural interventions necessary to protect and strengthen the building.

GARLAND worked with the design team to prepare a competitive tender. Suitable contractors, with significant experience in both new build and restoration of protected structures were identified and invited to engage in a two-stage tender process of quality submissions. Along with the client and other members of the design team, we reviewed these submissions and interviewed contractors. A shortlist of contractors was prepared and invited to tender. Flynn Contracting were engaged under an RIAI Yellow form of Contract Fixed Price.

The contracted project programme was 80 weeks. However, the Covid-19 pandemic intervened which not only resulted in two extensive lockdowns but also significantly impeded the pace of works after the shutdown was lifted due to social distancing requirements and the limited availability of resources. The overall effect of these delays was an additional 50 weeks to the project programme.

Site meetings were mainly held online when work recommenced on site and site inspections were scheduled to avoid too many members of the design team being present together. All inspections were carried out in full accordance with the GARLAND Covid protocol and ACEI Covid-19 Advice Note on site inspections.

St. Stephen's Green and its neighbouring squares are considered to be the heart of Georgian Dublin, so it was crucial to complete the refurbishment to the very highest of standards.

CANTILEVERED STONE STAIRCASES

The Georgian building included two sets of limestone, interlocking, cantilevered stairs with decorative balustrades. During construction, cracking was noticed in one flight; new stone steps were ordered to exact original size/form and existing steps were removed to ensure embedment walls were not adversely affected. Given this failure, testing was necessary on the remaining flights. Laois-based Intrastruct AMS carried out non-destructive testing on the original five flights of stairs using Germann Instruments' s'MASH Impulse-Response testing system. The completely non-destructive assessment tool comparatively analyses the response from each step using a series of low-strain impacts and determines average mobility/stiffness. The s'MASH results were compared to similar stairs tested

Hallway

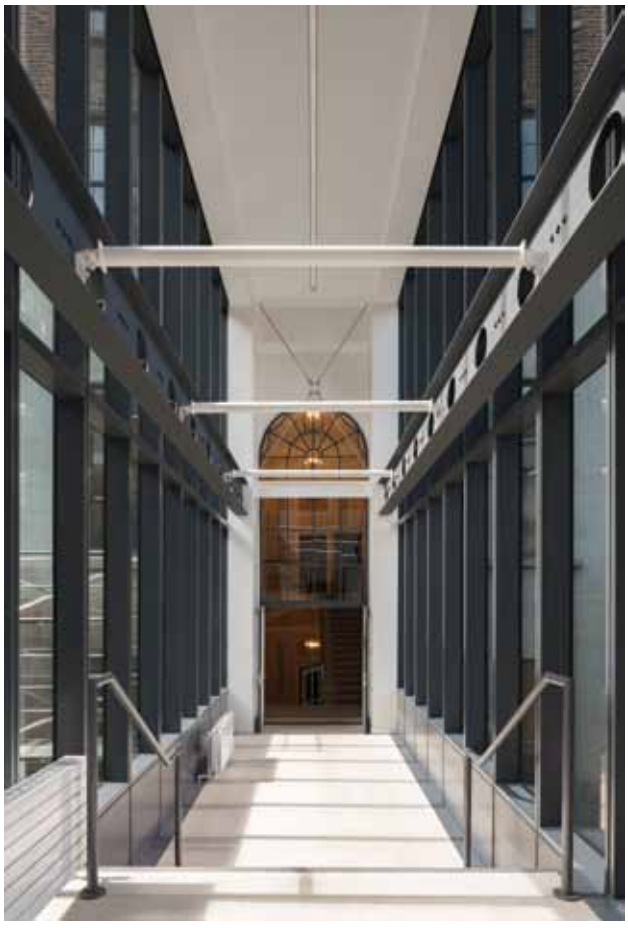
by Intrastruct in Trinity College. The flight with the highest average mobility/lowest stiffness characteristics was selected for a static load test which indicated an inability to safely support the applied live load.

A contemporary structural steel solution to adequately support the stairs with minimal interface with the historic elements was proposed/approved by Dublin City Council's conservation officer before installation.

RESTORATION OF BRICKWORK

The existing façade had been damaged using cementitious mortar when previously repointed and was covered in Virginia vine. The front consisted of three different bricks – original using traditional Irish wigging pointing, rustic, and new. Both rustic and new brick were built in sand and cement which had to be carefully removed. It was agreed that only repairs and repointing would be permitted, and no non-original bricks would be replaced. The works involved working from the top down.

The contract value was €18.5m. The office building was wrapped in a new unitised curtain wall system to most elevations with brick work elements to east and west wings and external insulated render system to the main core on the south end. An insulated Paralon Total Warm roof system was used to weather the building with ballast installation and PV installed outside of the mechanical plant areas. Landlord areas were fitted out to the highest standards with ceramic tiled floors at each level within the main core / circulation areas. The walls of the lobbies were finished in bespoke timber lath panelling with black flashing into lift reveals providing an elegant finish. Office areas were fitted out to a CAT A standard throughout.



Glazed link bridge connecting protected structure to new building

CARBON FOOTPRINT

From the outset it was decided that the building would be both LEED Gold and BER A3 rated, inclusive of PV panels on the roof. The entire team was kept, thus ensuring that greenwashing was avoided and a reduction of embedded carbon for the final solution addressed. There were many benefits in demolishing the entire rear building and constructing a new building without limitations in foundation capacity or orientation. However, the carbon involved in demolishing the building and replacing it with a new building could not be justified. Consequently, the carbon efficient solution was to remove two heavy concrete floors, and the perimeter brickwork envelope. This significantly reduced the load on the foundations allowing four additional floors to be added to the existing building.

HEALTH & SAFETY

The site was extensively restricted. The basement of the protected structure was occupied by a long-established restaurant, which would remain operational throughout the duration of the construction works. Logistics on the project was a major challenge with a Luas line to the front of the building and no rear access available. As PSDP we were faced with preparing a comprehensive preliminary safety and health plan. It was necessary to understand how the building would be constructed in order to identify an appropriate timescale for construction as required by the Safety Health and Welfare at Work (Construction) Regulations. It was agreed with the client and design team to engage with one of the shortlisted contractors in advance of the tender process to work out a logistic and constructability plan for the site. This engagement proved very fruitful and allowed the production of a comprehensive safety and health plan.

An extensive protection scaffolding was erected to the front of the property on St. Stephen's Green to allow materials lifting from our loading bay over a live footpath and onto the project. A scaffolding tunnel was formed as part of this scaffolding with integrated timber panelling, lighting and landscaping to allow pedestrians to pass by the front of the project.

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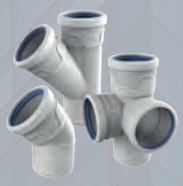

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ACEI ENGINEERING EXCELLENCE AWARDS: MECHANICAL & ELECTRICAL – LARGE

WINNER: O'CONNOR SUTTON CRONIN – GLENCAR HOUSE

The former Toyota garage site has been transformed into Glencar House, a landmark office building that stands as an example of modern, sustainable architecture. Completed in November 2023, this five-storey, 6,968m² Grade A office building features a double basement and incorporates a range of advanced technologies aimed at improving sustainability, comfort, and energy efficiency. The building is located on Merrion Road, directly opposite the historic Royal Dublin Society (RDS) buildings, with a new public plaza and landscaped areas that contribute to its aesthetic and ecological value.

Entrance lobby and reception

Foyer

Glencar House has received the highest certifications available for sustainability and environmental performance, including LEED Platinum, WELL, and WiredScore Platinum. It also boasts a Building Energy Rating (BER) of A3, reflecting its energy-efficient design. The development process involved collaboration with multiple design firms and consultants, with OCSC appointed as M&E (mechanical and electrical) designers, sustainability and energy consultants, LEED coordinators, as well as civil, structural, and environmental engineers.

A key feature of Glencar House is its focus on environmental sustainability and energy efficiency. The building incorporates an advanced M&E design that prioritises reliability, low maintenance, and a long service life, all contributing to the building's reduced carbon footprint. The coordination of mechanical, electrical, and structural elements was achieved using Revit-based methods, ensuring efficient collaboration across the project team. OCSC's approach also adapted to challenges posed by the Covid-19 pandemic by implementing cloud-based tracking systems to ensure real-time collaboration and action monitoring.

A standout feature of Glencar House is its attention to occupant health and comfort. The building includes numerous design features aimed at promoting well-being, including bike storage facilities, a drying room, and excellent shower and changing amenities to encourage sustainable commuting. Four 13-person destination control lifts, equipped with antimicrobial handrails to reduce the spread of diseases, are available for use, while a rainwater harvesting system is integrated to collect, filter, and reuse rainwater for irrigation and internal use in WC's and urinals.

The design of Glencar House also takes into account the need for a safer and healthier work environment, especially in response to the lessons learned from the Covid-19 pandemic. Features such as automated opening doors, HVAC systems with automatic temperature controls, HEPA filtration on air handling units, and UVC lighting in lifts help to reduce the risk of infection and enhance the overall safety of the building. Full-height cubicles are also included to minimise the spread of viruses and bacteria.

The building's energy-efficient systems include water-to-water heat pumps located in the basement and dry air coolers on the roof, combined with natural gas-fired boilers to maintain the building's temperature. These systems were chosen to meet the constraints of a 1.5-metre planning height restriction. Four-pipe waterside fan coil units (FCUs) provide heating and cooling to

External view from Merrion Road

the office spaces, with zoning designed to meet BCO standards and ensure occupant comfort. The atrium is cooled using a mixed-mode natural ventilation system, which helps manage temperatures and doubles as a smoke extraction system in emergencies.

An addressable emergency lighting system ensures the safety of building occupants in the event of a power failure, providing clear guidance on escape routes. Additionally, an underfloor busbar system allows for greater flexibility in office layouts, as it enables tenants to adjust their electrical configurations without the need for major alterations. The building also includes electric car chargers for nine parking spaces in the basement, with provisions for future expansion to accommodate additional electric vehicles.

Glencar House's commitment to sustainability is further reflected in its focus to reduce its environmental impact. The rainwater harvesting system, for instance, significantly reduces water consumption, and the building's energy-efficient design and systems help lower its carbon emissions. These efforts culminated in the achievement of LEED Platinum certification, the highest level of certification possible, and a strong endorsement of the building's commitment to environmental stewardship.

Overall, Glencar House stands as a beacon of modern, sustainable office design, blending cutting-edge technologies with a focus on occupant health and comfort. Through its collaboration with various design teams and careful attention to every detail, the building has successfully met and exceeded the high standards set for sustainability, energy efficiency, and occupant well-being. It is a prime example of how thoughtful, well-executed design can create a functional, comfortable, and environmentally responsible workplace.

Foyer

Lift lobby

ACEI ENGINEERING EXCELLENCE AWARDS: MECHANICAL & ELECTRICAL – SMALL/MEDIUM

WINNER: VARMING CONSULTING ENGINEERS – ROSCOMMON HOSPICE

Aerial view on completion

Varming was appointed by Mayo Roscommon Hospice in September 2019 as mechanical and electrical services designers, sustainable engineers and M&E ancillary design certifiers under BCAR for the project. The completed facility was handed over to Roscommon Hospice in November 2021. During the project, Varming worked very closely with our client and the design team to deliver on the hospice vision to provide a high quality, comfortable and homely environment for the patients and their families at a challenging time in their lives.

The completed building is a testament to the collaboration of the client, design and construction teams that included O'Neill O' Malley Architects, O'Connor Sutton Cronin Structural Engineers, Aecom Cost Consultants, MVS Construction as main contractors and the numerous sub-contractors employed on the project.

OVERVIEW OF THE PROJECT

The development compromises of eight single ensuite patient bedrooms with associated support facilities, therapy areas, day-care facilities, home care, kitchen/


Aerial view start of construction


Patient gardens, including external pod

restaurant, reflection room, mortuary and associated offices / administration facilities. Externally, the natural landscape is complemented by trees, planted courtyards and therapeutic gardens with seated areas for patients and their families. The building is located adjacent to the Roscommon University Hospital, as the hospice works closely with the HSE to provide service to patients in the Roscommon area.

Due to the emphasis on needing to provide a homely environment rather than a clinical environment, the project was not designed to comply fully with the recommendations set out in NHS Health Building Notes (HBN) and Health Technical Memoranda (HTM), but the building was designed to meet the requirements, in as far as possible, while still maintaining the homely environment. The design team liaised closely with the HSE during the design and construction to ensure that the completed facility met the requirements of the HSE, particularly with respect to infection control, legionella and other key fundamentals for healthcare buildings.

DESIGN CHALLENGES AND INNOVATIVE SOLUTIONS

To achieve the hospice vision of a homely and caring environment, the design team focused on designing to meet the patient and family needs, so the most important rooms in the building are the bedrooms and associated ensuite. The bedrooms are more typical of a nice hotel bedroom rather than a hospital bedroom, while still meeting the clinical needs of the patients.

The services in the bedrooms include individual heat recovery ventilation systems to ensure the air quality is maintained at all times, as this can be an issue with some very sick people towards end-of-life. The HRV system provides continuous fresh air supply to the room with extract from the adjacent ensuite WC and shower room. The ensuite and shower room are designed as a full wet room with high quality finishes that are more typical of a nice hotel rather than a clinical environment. Both rooms are fully tiled for easy cleaning and maintenance as well as infection control.

Heating is provided by low water content radiators with wall-mounted thermostatic controls in each room to ensure local control and a fast response time. As patients' temperatures can fluctuate a lot there is a need to be able to quickly adjust room temperatures to keep them comfortable.

The electrical services allowed for enhanced patient comfort using a handheld controller that allows each patient to control TV, radio, lights and window blinds in the room. In addition, this system was integrated with the nurse call system to allow a patient to get assistance when required. The LED lighting in each room included bed head lights, night lights, main room lights with lighting control so patients could select the mode that best suited their individual needs, at any time. Medical trunking was provided in the room to facilitate the medical systems required including nurse call, power, data systems and oxygen. The trunking has been integrated into the fitted furniture to ensure it is discrete and unobtrusive.


View of main entrance


Dining room


M&E services installation, nearing completion

As the building provides medical/clinical services, resilience of electricity supply to the new facility was addressed by designing in an emergency generator that provides backup power supply when needed.

Medical oxygen in the building has been provided for by installing an oxygen generator. The oxygen generator was selected as it can provide a reliable source of oxygen to patients from a continuous source, with no need for daily or weekly changing of oxygen bottles. It also provides oxygen at a much lower cost to the hospice when compared to bottled oxygen from a medical gas supplier. Backup oxygen is provided from a gas bottle manifold with automatic changeover. The system also includes medical gas alarms to alert staff in the event of any failure of the systems.

SUSTAINABILITY OBJECTIVES

A key fundamental in the design was to provide a facility that would be sustainable, energy efficient, comfortable and easily maintained over the lifetime of the building. In-house computer modelling by Varming of the building design enabled various sustainable options to be evaluated. We prepared a dynamic simulation model report which verified full compliance with building regulations requirements including NZEB. The final design includes passive measures, with building fabric that includes high levels of fabric insulation and air tightness. The active systems in the building included a modular air source heat pump installation, heat recovery ventilation systems, LED lighting and lighting controls, as well as photovoltaic panels.

SBEM modelling ensured that a final building energy rating of A3 and NZEB compliance was achieved. This included a measured building Air Tightness of 2.86m^3/hr m^2 which was tested to I.S. EN ISO 9972:2015.

SITE MANAGEMENT AND SUPERVISION

The construction of the project was somewhat challenging due the impact of Covid-19. Construction of the project had only started in early 2020 when the Covid-19 epidemic started. The project was halted for a short period of time but as it is a medical facility, construction was allowed to continue during the pandemic. However, the construction was impacted on an ongoing basis by the restrictions imposed as a result of Covid and in particular the impact of Covid on the supply chain of materials. The design team worked very closely with the construction team to ensure that there was minimal impact on the construction process and programme. Overall, the impact of Covid-19 on the project was minimised and this ensured that the project was constructed within an 18-month period and handed over ready for occupation at the end of September 2021.

PROJECT COST CONTROLS AND MANAGEMENT

The standard of service delivered meant that design issues and technical / cost issues were addressed readily and appropriate solutions identified and implemented quickly and effectively. This proactive approach was used right through to the project, from the start of the design through to construction and handover of the building. This enabled the project to be completed within the original budget of €5M, which was a major achievement given that the project was constructed during the Covid pandemic.

The project was a success due to a number of factors but primarily due to team effort and collaboration and communications between the client, design and construction teams and their determination to provide a finished, high-quality building and environment for the patients and their families.

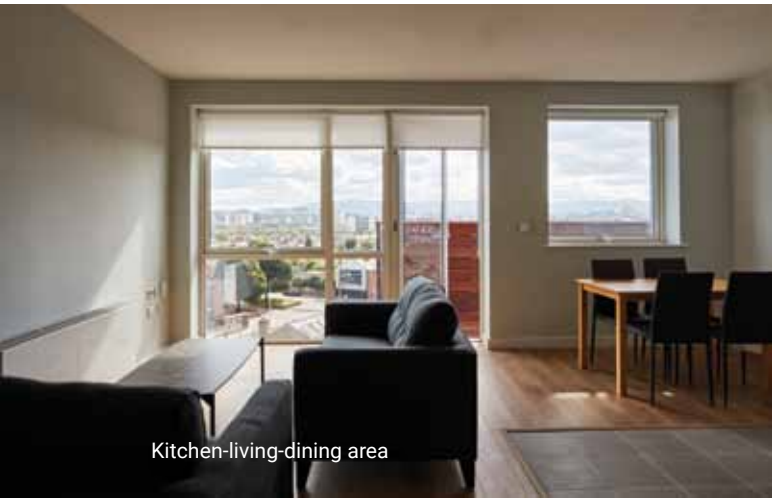
ACEI ENGINEERING EXCELLENCE AWARDS: ENVIRONMENTAL SUSTAINABILITY – BUILT ENVIRONMENT

WINNER: J.V. TIERNEY & COMPANY – POPLAR ROW SOCIAL HOUSING

Building front

Building front

Poplar Row is a six-storey, 39-unit social housing complex located in central Dublin which involved the demolition of an existing car dealership and the development of 'build-to-rent' apartments, now operated by Dublin City Council. Acting as mechanical, electrical, and sustainable engineers and home performance index assessors, JV Tierney & Co. played a pivotal role in advancing the sustainability aspects of the Poplar Row project. We engaged in utilising building energy model services throughout the entire project lifecycle, emphasising embodied carbon while ensuring that the development adhered to stringent criteria for daylighting, overheating, and energy compliance. Poole House features PV panels, a green roof, gardens, recycling, bike storage, heat pumps, and LED lighting. Due to its central location, the development maximises public transport access, omitting car spaces for an eco-friendlier approach.



Kitchen-living-dining area

Street view

The scope of JVT's work included a range of assessments and activities such as conducting detailed daylighting assessments and impact studies throughout all project stages, performing CIBSE TM59 Overheating Assessments for the apartments, carrying out Non-Domestic Energy Performance Certificates and Part L compliance assessments to achieve A3 BER rating. JVT also coordinated Building Fabric Performance reviews to ensure compliance with statutory requirements, and addressed U-Values, overheating, and daylight criteria.

We executed a comprehensive Life Cycle Analysis, quantifying the embodied carbon for the entire development. We conducted Environmental Product Declaration (EPD) assessments and ensured key building materials had appropriate EPDs, performed Sustainability Site Reviews through on-site inspections to verify the implementation of sustainability aspects including witnessing PV and heat pump commissioning, and coordinated ecology design with the architect and landscape architect. We managed training and handover processes, including coordinating client training with the M&E engineer and holding meetings with homeowners to ensure a clear understanding of training information.

Submitted for planning in 2019, the initial sustainability requirements for Poplar Row were set to align with the Building Regulations Technical Guidance Document Part L 2021. Despite this baseline, it is evident that both the client and the design team dedicated time, effort, and resources to surpass these standards. This level of commitment is typically associated with larger-scale commercial or multinational projects where environmental, social, and governance factors take precedence. However, from this project's inception, there was a deliberate aim to exceed minimum sustainability requirements, striving for the highest levels of environmental effectiveness. Consequently, Poplar Row stands out as one of the pioneering social housing developments in Ireland to attain Home Performance Index certification by the Irish Green Building Council.

Our approach to the design of the development included:

- **Passive Measures:** JVT's initial focus pushed a 'fabric first' approach. This included optimising natural daylight, enhancing fabric insulation, utilising efficient glazing, encouraging natural ventilation through

Rear courtyard

Rear courtyard

Balcony view

valadation of a CIBSE TM59 analysis, incorporating internal thermal mass, managing apartment depth, ensuring air tightness and harnessing solar heating.

- **Active Systems:** Following on passive measures, JVT advised on efficient active systems, analysing options such as Exhaust Air Heat Pumps (EASHP), energy-efficient LED lighting, smart controls, and metering. Key design elements included achieving <2W/m^2 100 lux in landlord areas, NIBE EAHP with radiators, smart meters, water meters, and implementing water restrictors for reduced water flow.
- **Renewable Energy Integration:** JVT provided guidance on integrating renewable energy sources, resulting in the implementation of a 14kWp photovoltaic (PV) panel system to meet Part L compliance.
- **Thermal Energy Modelling:** JVT developed a dynamic simulation 3D model using IESVE software, collaboratively reviewing thermal performance with the design team, addressing aspects such as daylight, over-heating, energy performance, glazing specifications, and room orientation.
- **Life Cycle Analysis:** JVT conducted a Life Cycle Assessment (LCA) according to EN 15978-2011 standards, utilising OneClick LCA software for calculating CO_2 emissions. The project achieved 'Level 1 Embodied Carbon – Benchmarks,' with embodied carbon calculated at 455.64 kg CO_2/m^2 for Modules A1-A5.

In the capacity of Home Performance Index (HPI) assessor, JVT led and coordinated both the client and design team in collecting essential information across five crucial HPI categories, performing detailed calculations like net space heat demand and energy costs for certification. The categories are environment, health and well-being, economic, quality assurance, and sustainable location. Home Performance Index (HPI) certification is Ireland's national certification for new homes, specifically tailored for residential development and aligning with Irish building regulations, EU CEN standards, and international WELL certification for communities. The project's HPI certification demonstrates the development's resolute commitment to both quality and sustainability, and it is this commitment that gives Poole House its 'Excellence in Engineering' status as awarded by the ACEI.

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ACEI ENGINEERING EXCELLENCE AWARDS: ENVIRONMENTAL SUSTAINABILITY – NATURAL ENVIRONMENT

WINNER: RYAN HANLEY – COOLATEE INTEGRATED CONSTRUCTED WETLAND

Aerial view of the completed, constructed wetland, approximately nine months after planting, with the Foyle Estuary visible in the background

The delivery of a Constructed Wetland for wastewater treatment in the Coolatee agglomeration (Co. Donegal) facilitated Uisce Éireann in removing this site from its list of untreated agglomerations and removed an untreated wastewater discharge to the Foyle Estuary. By selecting the constructed wetland option for wastewater treatment, a wastewater solution was delivered that operates without the need for an energy supply or any treated water connection, all whilst increasing the biodiversity of the area. Other benefits include the achievement of key sustainability objectives, including a minimal carbon footprint and minimal visual impact, all whilst being a low-cost solution when assessed over the lifetime of the wastewater treatment plant. The Constructed Wetland installation comprises a primary treatment stage via a septic tank followed by four wetland ponds, providing secondary and tertiary treatment.

The project represents major operational savings and is one of the first of its kind commissioned by Uisce Éireann. It is envisaged that this project will pave the way for the implementation of nature-based solutions for the treatment of municipal wastewater in numerous other agglomerations in Ireland. This was all completed despite significant challenges that would have typically resulted in the selection of a more standard, less sustainable treatment process.

The use of Constructed Wetlands to treat urban wastewater is an emerging trend worldwide and the benefits of this type of nature-based solution are well documented. However, there were nonetheless significant challenges to the sustainability of the project that were successfully overcome, and maximising sustainability through the whole project lifecycle, and not just the treatment process, was at the forefront of every decision. This required the project design and implementation to be viewed through the lens of all three pillars of sustainability: social, economic and environmental.

A particularly difficult sustainability objective set by the client was to provide appropriate treatment without increasing the energy demand, given that prior to this project, there was zero energy demand as there was no treatment. This was further compounded by hydraulic restrictions at the site, with the existing inlet and outlet levels to be maintained, resulting in significant design challenges in maintaining flows via gravity. Gravity flows were achieved by deepening the ponds (bringing the top water level below the existing ground level), enhancing the layout and shape of the ponds to allow sufficient flows through them whilst maintaining recommended aspect ratios, and also incorporating intermediate deep-water zones to mitigate against preferential flow paths. These changes and innovations allowed for flows through the site to be entirely gravitational, thereby, in conjunction

Engineered embankments for pre installation of synthetic liner and planting medium

with the selected Constructed Wetland treatment process, enabling a zero-energy demand solution. Furthermore, in a future proofing measure, an area was reserved for solar panels should a need for an electricity supply arise on-site, for example, for process monitoring equipment.

The sustainability and carbon footprint of the construction phase was also a key consideration. The restrictive site area and limiting hydraulic profile necessitated steeply sloped embankments around the ponds, requiring an engineered solution. Whilst the importation of fill was unavoidable, the selected solution comprised the mixing of on-site materials with imported materials. This minimised the number of vehicular movements associated with the transport of materials on and off site, and also the volume of fill required, thereby minimising the carbon footprint of the construction.

Liner installation in Pond 1, in foreground, with installation of protective geomembrane in Pond 2, shown in right background

Placement of soil in Pond 2 with formation of the deep-water zone visible in the foreground

Wetland marsh in Pond 2 after one growing season with the deep-water zone at the pond outlet visible to left foreground

The enduring asset also provided opportunities for achieving key sustainability objectives. The constructed wetland ponds themselves provide a rich biodiverse habitat with the planting of approximately 6,000 native plants. The embankments were planted with marginal plant species as well as some remaining open areas where native trees were also included. These enhanced the habitat in the area for the nearby resident wintering bird population.

Whilst sustainability of this project is one key success, another key achievement was the implementation of a bespoke contractual approach. Constructed Wetlands are an emerging wastewater solution in Ireland with a limited number of designers and contractors experienced in the area. Consequently, a design sharing approach (between Uisce Éireann, Ryan Hanley and Coffey Construction) was developed where the standard elements of the project were managed in accordance with standard industry design-build practices, but the specialist Constructed Wetland design responsibilities were retained by the employer. This collaborative approach enabled a competitive tendering process for the civil elements of the project by removing the limitation caused by the novelty of the proposed treatment process. It also provides a template for the implementation of this sustainable solution more readily throughout the country.

Completed marsh substrate in Pond 3 with planting almost completed

Finally, in relation to the social sustainability of the project, it has had a positive effect well beyond the boundaries of the site itself. There are numerous walkways and tracks that traverse the hugely biodiverse banks of the River Foyle. The removal of the untreated discharge ensured a positive impact on the waters in Lough Foyle/ Finn SAC and consequently the recreational and amenity value of the area. It also removed a throttle on growth in the area by providing adequate wastewater treatment infrastructure for a 30-year Design Horizon.

The careful integration of the wetland into the wider natural landscape allowed this to be achieved not only without impacting the visual amenity value but in fact enhancing it in many ways.

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ACEI ENGINEERING EXCELLENCE AWARDS: PROJECT MANAGEMENT

WINNER: GARLAND – ALAT FREE ECONOMIC ZONE (AFEZ)

Aerial view of Alat Free Economic Zone

The Alat Free Economic Zone (AFEZ) is Azerbaijan's first dedicated export, value added and manufacturing zone. The Government's vision is that by 2030 the new AFEZ will have become the leading regional investment hub in Eurasia and reduce its dependence on the production of fossil fuels.

As part of a plan to rejuvenate the city of Baku, the existing port was relocated to Alat, approximately an hour's drive outside the city. This allowed for a spectacular waterfront corniche development to transform a derelict area of the city. Consequently, there was ample undeveloped land surrounding the new port which made a free zone possible.

When the port was moved to Alat, the Port Authority was tasked to establish the Free Economic Zone. In the following five years no progress was made to deliver the project. Consequently, the President of Azerbaijan, appointed the retiring speaker of the House of Parliament to chair a newly established Alat Free Economic Zone Authority. GARLAND was invited to bid for the project based on its experience in the development of similar zones internationally.

GARLAND was initially appointed in May 2019 to prepare a masterplan for the 850Ha ALAT Free Economic Zone (FEZ) and detailed designs for the first 54Ha of infrastructure, including a 9,900m^2 headquarter building


HQ building

to accommodate the Alat Free Economic Zone Authority, Customs Authority, one-stop shop and services' offices. The appointment included the administration of the construction project on site and the provision of a site-based supervision team.

As well as the design aspect, GARLAND was also commissioned in late 2019 to assist the client in the establishment of the Free Zone Authority. At the time, the authority consisted of the chairman and his PA. Our scope included;

1. Prepare a business plan for the Authority.
2. Prepare the corporate structure for the Authority, identifying the personnel required and a job description for each member of staff.
3. Draft 31 different regulations to include everything from planning and building regulations to company registration and work permits.
4. Business process design for operations and manuals.
5. Business process design for admin and manuals.
6. Organisation design and job descriptions.
7. Staffing plan.
8. MIS (accounting, HR, payroll, CRM, maintenance management etc.).
9. Recruitment assistance.
10. Structured training.
11. Operations support and on-the-job training.

In order to successfully design any special economic zone, it is essential to understand exactly what the investing companies in the zone require; what size premises they require, what services they require, what they will do on the zone.

At the outset, it was apparent that as a start-up themselves the Authority did not have the skill set to prepare a detailed brief, to identify their requirements, to successfully bring this project to the market or identify suitable investors and have them successfully establish on the zone. GARLAND therefore proposed a scope of work to provide the Alat Free Economic Zone Authority with the skills to successfully operate a zone, using the skills of Shannon International Development Consultants, a 100% owned subsidiary of GARLAND.

Over the last 30 years GARLAND has successfully and uniquely blended engineering consultancy with economic development services to deliver special economic zones around the world.

GARLAND had single point responsibility to provide an integrated multi-disciplinary team, supported by a number of long-established strategic partners; Fewer Harrington Partnership (Architects), Noel Lawler Consulting Engineers (MEP & Sustainability) and Carron Walsh (QS). We were also supported by a local partner in Azerbaijan, The Baku State Design Institute.


Overview of zone 1 & 2 wrapped around the port


Customs Plaza

The main elements of the project were as follows;

- Stormwater network – 4,629m
- Foulwater discharging to a new local authority SWTP – 2,570m
- Potable water line – 7,743m
- Gas line – 2,610m
- Irrigation water line – 29,129m
- Overpass bridge - 1 unit
- Telecom – 84,163m
- Area lighting – 21,928m
- MV medium voltage line – 36,208m
- LV low voltage line – 31,041m
- Roads – 4,300m
- Fence – 3,241m
- Customs Plaza – 4 lanes in each direction, including express lanes and smart technologies
- Micro tunnel under railway line - 117m
- 9,000m^2 HQ building. An exemplar design was prepared and awarded to the contractor on a design and build basis.

COVID

The global pandemic proved to be one of the most challenging aspects of the project. Work commenced on the preparation of the masterplan over a 22-week period. Followed by a 30-week detailed design programme. The team was attending a workshop in Baku in March 2020, when the pandemic hit the headlines. The detailed design was concluded remotely, and the project went to tender during the shutdown period. The infrastructure contractor commenced work in September 2020. Establishing a site supervision team proved very difficult. The team comprised of an Irish senior resident engineer and quantity surveyor. They were supported on site by a survey team, a civil engineer, electrical engineer and administration support. The resident engineer and quantity surveyor required a letter of invitation from the Prime Minister to enter Azerbaijan during the shutdown period and had to quarantine for two weeks before they could visit site.

CUSTOMS

The successful operation of a special economic zone is dependent on the ease of entry and exit from the zone. One of the main challenges on the project was agreeing a strategy with the Azerbaijan Customs Authority who would control entry and exit from the facility. We led numerous workshops with the Customs Authority to develop the various scenarios that they were concerned with. We worked through those scenarios and developed solutions based on the best international practices. We had the ex-head of Strategy from the Irish Customs Authority on our team. His experience on EU-wide customs strategy was invaluable in reassuring the Azerbaijan Customs Authority that he fully understood their concerns and gave confidence that our proposals were fully operational. We developed four entry and four exit lanes and used smart technologies to allow express entry to vehicles who had obtained preclearance from the customs authority.

SUSTAINABILITY

The zone was designed on the basis of a 10-minute neighbourhood, with cycle and walking tracks totally separated from the road network with grade-separated junctions. As part of our masterplan, we proposed registering the development as a LEED neighborhood development. This would have been the first special economic zone to be certified as such and we believed this would bring enormous marketing benefits to environmentally-conscious investors. However, our client did not wish to proceed with certification at this point in time, therefore our design proceeded on the basis that we would know nothing to preclude its later introduction.

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ACEI ENGINEERING EXCELLENCE AWARDS: INNOVATION

WINNER: PUNCH CONSULTING ENGINEERS – PRECAST INNOVATION

Windmill residential development, Clonsilla, Dublin

PUNCH Consulting Engineers formed a partnership with Ireland's leading manufacturer of concrete products, Kilsaran, to provide the design and detailing for a range of precast concrete elements for its recently completed, state-of-the-art factory. The manufacturing process is the first of its kind in terms of precast technology in the Irish market and the most advanced, automated carousel, precast plant manufacturing facility in Europe. The factory computer-controlled production systems transfer production information provided by PUNCH directly to the factory manufacturing robots.

The purpose-built factory is a fully automated production facility with state-of-the-art carousel plant that transports pallets from one workstation to the next. The plant incorporates robots for shuttering, reinforcing/mesh bending and fixing of reinforcement, utilising EBOS integrated software with the universal PXML file format.

The precast walls produced in the factory are 180mm thick which saves 10% of concrete being used in a building from the standard 200mm precast on the market. This is a valuable sustainability innovation.

Initially PUNCH was tasked with researching the market for the most appropriate software solution. This would be required to develop the design and production information for the precast 3D models and the transfer of its digital content to the factory for production, while adhering to the stringent robotic machinery requirements. PUNCH determined that Tekla Structures software, with its interoperability and customisation functions, was in keeping with the state-of-the-art requirements

Factory precast carousel system

Mesh welding automation

of the factory. Tekla Structures has a market-leading automation system, enabling PUNCH to automate the modelling process of a structure using custom components within the software or through our own Automated Production Information (APIs), which we have developed to further enhance Tekla Structures.

We then implemented a QMS into the facility, based on our BIM NSAI ISO 19650-1:2018 and ISO 19650-2:2018 accreditation for the digitisation of information and information management systems, along with our ISO9001 quality management systems. This required us to adapt our documention and current best practices for working in a 3D environment, from initial design stage models to final on-site installation drawings and documentation, given the automated nature of the factory.

A key innovation with the factory production is ensuring that the information in the PXML data for each precast element file is correct, to allow the factory robots to carry out production. During commissioning of the factory, several tests were required to ensure that the information from the model was interpreted correctly by the factory software. This was a cutting-edge innovation process for this type of facility.

The innovation further relates to the implementation of several technologies into the state-of-the-art automotive precast factory and real-time monitoring of production information. Automation and digital technology have a key role to play as part of an industry drive toward modern methods of construction.

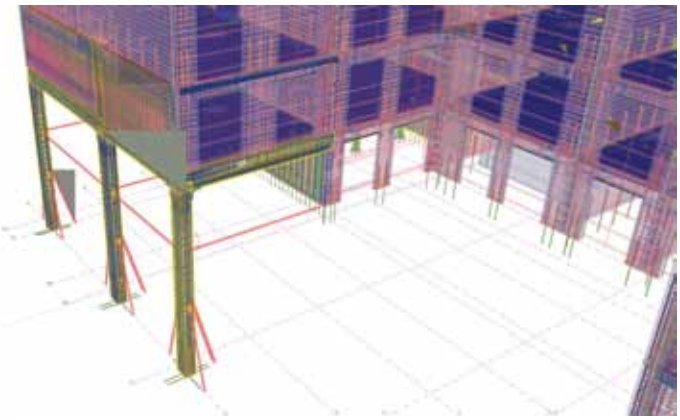
Everything is incorporated into the precast model, from precast wall reinforcement, embedments (propping sockets, grout tubes couplers etc) and all end user wall services.

This level of detailing ensures reduced wastage, errors, and the avoidance of rework. Given that this model and all its information is accessible within the Trimble Connect platform, which can be accessed on-site, this also has significant H&S benefits. The fabrication and construction drawings are all generated from the Tekla Structures model, which is linked to Trimble Connect. This ensures that there is no disparity between the drawings and the model. A clash detection system is also implemented through the Tekla Structures software, to minimise issues arising on site and gain maximum benefit from the use of this modern method of construction.

Now fully operational, the standard service PUNCH provides on a precast project from receipt of design to handover involves:

Stage 1: Information Review and Analysis – PUNCH review all information to ensure the information workflows are identified and addressed at an early stage. After the review, PUNCH issue a precast design statement for approval. This forms the basis of the analytical design. Once approved, a 3D analysis model is set up and is panelised to ensure the structural analysis model mirrors the precast building panelisation. The 3D model identifies any structural issues to be revised to determine the most cost-effective and buildable solution. Once completed, the calculations are prepared. This

Adamstown precast model



Cork Street precast and reinforcement model

3D design approach is effectively carried out in a fully digital environment.

Stage 2: General Arrangement Drawings – The precast building fabrication model commences on completion of stage 1. A complete 3D fabrication model is constructed based on the analytic model. The GA drawings are then generated from this model. At this stage the model is panelised and the starter bars are incorporated.

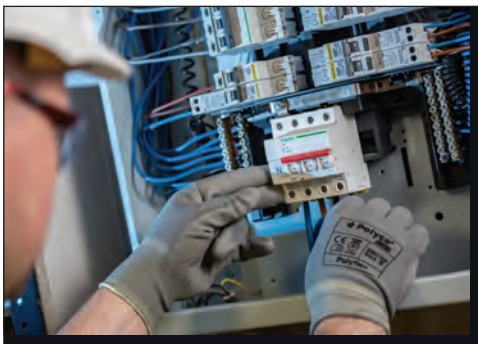
Stage 3: Fabrication Drawings – On approval of the GA drawings the model is reinforced in 3D along with embedment items. The steel, mould and reinforcement drawings are then generated from the model, along with the PXML files for the factory. The temporary works and screed reinforcement drawings are also finalised.

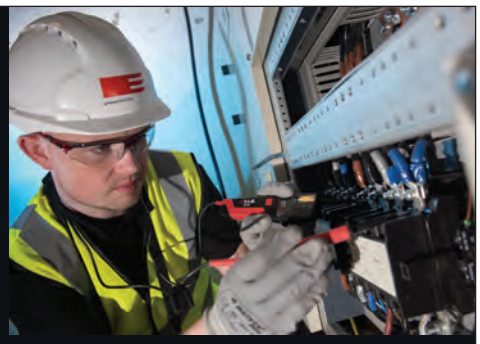
Stage 4: Construction – PUNCH carry out site inspections of all screed reinforcement pours, as well as precast and steel installations, preparing site inspection reports as standard.

The PUNCH / Kilsaran partnership is a great example of utilising automated machinery with streamlined constructible digital data from the model to the factory to site. This has led to the creation of one of the most advanced precast manufacturing facilities in Europe, making it an award-winning service.

Given the emphasis on off-site construction within the construction industry, our partnership with Kilsaran, along with our expertise in design and detailing precast buildings, has positioned PUNCH at the forefront as a modern structural consultancy firm.

Windmill residential development, Clonsilla, Dublin





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ACEI ENGINEERING EXCELLENCE AWARDS: OVERSEAS

WINNERS: BARRETT MAHONY CONSULTING ENGINEERS – COLLEGE ROAD, CROYDON, LONDON

Completed building with Ten Degrees in the background

The College Road, Croydon scheme delivered a pair of interconnected buildings; a 35-storey tower with 120 affordable homes, and a 50-storey tower with 817 co-living homes and seven dedicated floors of innovative and varied amenity spaces. It is one of the largest co-living developments in the world. The towers were constructed from 1,725 volumetric modules, manufactured offsite and erected over a 40-week period. Topping out at 163m high, it is Europe's tallest structure to be built using volumetric modular construction methods, surpassing our earlier neighbouring scheme at Ten Degrees, Croydon. This scheme is a high-quality, iconic landmark building which enhances the surrounding area with no aesthetic indication it was delivered using modular construction.

Barrett Mahony (BMCE) was appointed to provide structural and civil engineering design services from the project's inception in May 2019 through to the construction phase starting May 2021, to practical completion in October 2023. BMCE's appointment was on a design and build basis with the developer and contractor Tide Construction Ltd and its 3D volumetric

Module installation level 32

Module lifting from College Road

modular company Vision Volumetric. BMCE acted as the primary structural consultant taking responsibility for the base build, including foundations, overall stability, review of the structural design aspects of the modules as well as leading interface coordination between these specialist elements and the supporting structure. The Vision volumetric units were designed by Dublin-based consultancy MJH Structural Engineers.

This project has raised worldwide awareness of the potential of modular construction particularly to deliver high rise buildings faster and more sustainably than previously possible, with high quality finishes and minimal disruption to the local area. We have advanced the learnings of the neighbouring scheme at Ten Degrees to deliver a structure that portrays the best of Irish design, engineering, and offsite technology. It has further advanced offsite construction legitimately into the realm of skyscrapers.

The extremely constrained site brought challenges with the building footprint occupying the full extent as it is immediately bounded by a bridge structure, public roads, retaining walls and a five-storey college building. The craneage strategy involved the design of the freestanding RC cores to support large tower cranes tied into the top and allow unobstructed installation of the module units, weighing up to 28 tonnes. For the first time using this system, a crane was installed on top of the modular units at Level 50 to remove the larger cranes from on top of the RC cores. This was a complex design due to the relatively low stiffness of the supporting 50-storey high, thin modular posts below. A bespoke frame was designed to evenly distribute loads to multiple modular posts and prevent overloading of their connections or cracking to internal finishes.

The use of the steel corner post modular system provided the requirements for structural integrity whilst also meeting the construction programme. Every module is geometrically different on plan, which required each module to be designed independently. There are approximately 11,000 columns used, and each one is designed and engineered independently to suit its unique position in the building, emphasising the scale of the design task at hand. Differential movements of the concrete cores and steel modules were modelled in detail to establish the construction installation levels and design for future long-term movements.

Crown structure

Level 35 temporary tie frame between cores

Western elevation

Module installation Level 48

The innovative nature of the structure required structural R&D to be undertaken by BMCE during the design and construction phases. The tower has a height/width slenderness ratio of just over eight which is higher than typical for a building of this height. Uncertainties included the dynamic performance of the towers, stability of slender freestanding RC cores, design forces and movements on the module connections during the erection and permanent state phases. Vertical sliding connections between the modules and the RC cores resulted in no superstructure loads applied to the core until below podium level. This is unusual for a tall core and would not normally be applied and required research. BMCE collaborated with the engineering department of Trinity College, Dublin to undertake research on these aspects.

Research and onsite monitoring via acceleration monitors helped establish the actual building natural frequencies and damping levels which were not well understood at design stage. This improved our understanding for design and dynamic performance of future high rise modular residential towers. It also initiated a data bank of structural damping levels for high rise modular buildings which are not well outlined in Eurocode.

Early stage assessments were carried out to establish if the buildings would be structurally tied together or designed as independent structures. Independent structures would have simplified the modular unit and connections design by eliminating the large tie forces that can occur between tall buildings of different heights. However, the gap between the buildings proved difficult to fireproof and hide via cladding shadow gaps that would need to allow for movement in three dimensions. Via a series of wind tunnel tests, it was established that the most economical solution was to tie the buildings and develop a construction sequence to minimise the diaphragm forces through the module slabs. A large, bespoke, temporary steel frame was designed to clamp the cores together at roof level of the shorter building after both towers were erected to this roof level untied. The tie frame prevented differential building, movements during the process of welding the building joints together, starting at the lowest level.

Through using modular construction, the total build time for this building was 28 months, which is approximately 50% quicker than what would be achieved using traditional construction methods. This generated an earlier revenue stream for the investors and improved cash flow due to this earlier return on investment. The reduction in CO^2 emissions are expected to be in the region of 50% when compared with a similar, traditionally constructed building. Construction waste was reduced by 80% and 97% of waste produced was recycled. Due to the offsite completion of large elements of the development, there were minimal deliveries and workers on site, with 80% less vehicle movements to site and 60% less site personnel.

ACEI ENGINEERING EXCELLENCE AWARDS: MICROFIRM

WINNERS: TORQUE CONSULTING ENGINEERS LIMITED – LARIAN STUDIO GAMES

Front elevation view of new single-storey extension

Larian Studio Games is situated at the junction of New Bride Street and Long Lane, Dublin 8.

The original building on the site, a two-storey over-basement protected structure, constructed using limestone blocks, was retained and extended with a two-storey wraparound extension to the west and a single-storey extension to the north of the existing building.

The extensions complement the existing building and the northern extension in particular has a minimal impact of the streetscape of New Bride Street, which is the front elevation of the building.

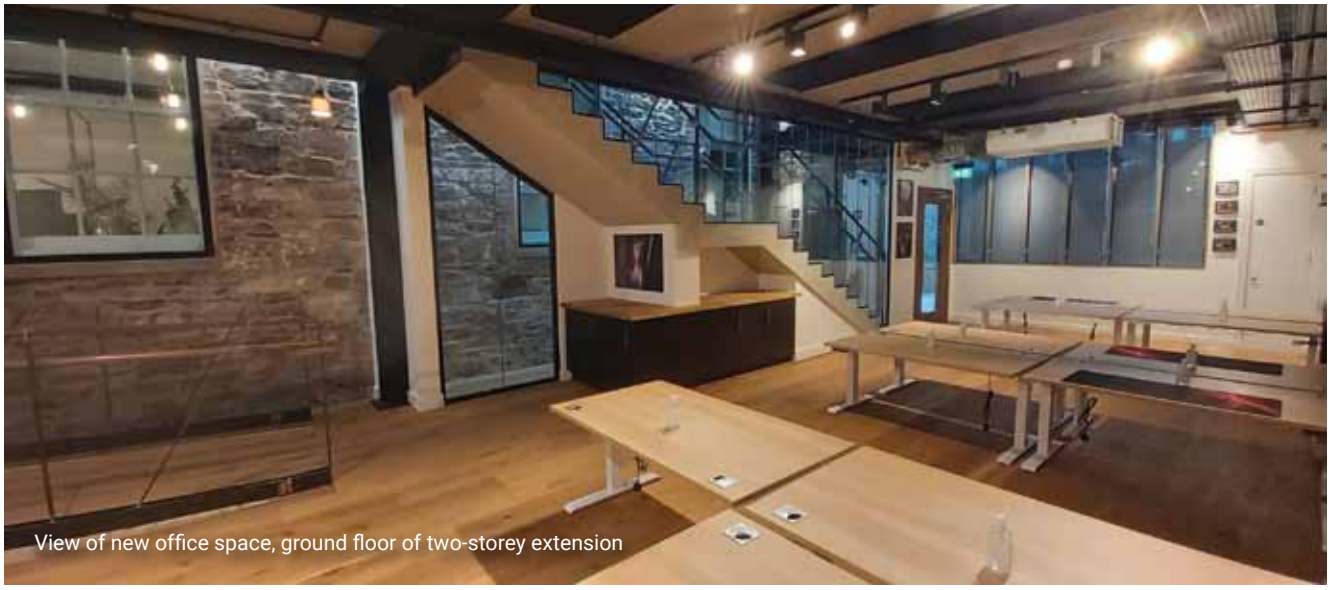
The extension on New Bride Street incorporates a new-build structure which marries seamlessly while complementing the existing stone building, formerly a boys' school and now a protected structure.

The site measures 26.5m x 22.5m in plan (c. 600 sq. m) with the existing building occupying circa 42% of the site.

The site is extremely constrained on all four sides, with New Bride Street to the east, Long Lane to the south, and adjacent residential properties to the west and north. Additionally, due to the proposed extension occupying the majority of the site, access for deliveries and storage of materials was extremely limited.

Due to the variable nature of the ground conditions and proximity of protected structure boundary walls with shallow foundations, it was decided to found the new structures on ground beams/pile caps, supported on micro piles with a design capacity of 47 tonnes.

The structural solution chosen for the project was a structural steel frame, supporting precast concrete wideslab units at first floor and roof level. Structural steel



View of new office space, ground floor of two-storey extension

was chosen due to its efficiency, relatively light weight and ability to be left exposed as an architectural feature. The architectural design intent required the structure to be designed to a high degree of efficiency to allow the structure to be exposed throughout.

The two-storey structure is designed as a freestanding sway frame. Due to the location of the continuous glazed atrium rooflight at the interface between the two buildings, lateral deflections of the steel frame, due to wind and notional horizontal loading, had to be minimised.

Significant challenges were faced at design stage with regard to constructing several of the new-build elements adjacent to the existing stone boundary walls, some of which had very shallow foundations and were in very poor condition. Three outfall manholes were located along Long Lane boundary wall, (one of the only available external spaces), in order to provide new drainage connections to the public sewer. Due to the extremely poor condition of a section of the boundary wall on Long Lane, along with shallow foundations, the affected section had to be demolished and faithfully reconstructed in order to construct the new outfall manholes.

Works to the existing protected structure involved a full refurbishment of the basement, incorporating a new foul water holding tank/pumping station below the basement slab level. The construction of this tank involved temporary works (below basement slab level) being installed in advance of the excavations, in order not to undermine the existing stone walls. Additional works to this building comprised several new openings in the limestone walls linking the new spaces with the old building.

View of feature stairs to new two-storey extension

View of new office space, first floor of two-storey extension

The level of detail developed and put onto the tender and subsequent construction pack of drawings was significantly above what would be considered normal practice for a project of this scale. However, this was justified because (a) the project was accurately measured/tendered by the quantity surveyors and (b) the level of information on the drawings enabled subcontractor packages, particularly structural steel fabrication drawings, to be developed quickly and accurately.

The client decamped from the site for the duration of the construction contract, allowing the contractor to utilise some of the existing office space in the building for site offices and site accommodation.

The project faced significant challenges during the construction stage. Covid had a big impact on the programme while hyperinflation post-contract signing put significant pressure on the contractor and required all parties to come together to agree a sensible solution to rising costs on the project.

From a sustainability perspective, all of the concrete on the project was specified as GGBS concrete, with up to 70% GGBS being used in places. All of the steelwork was designed to a very high utilisation factor to reduce steel section sizes as much as possible, given their exposed/architectural nature. All new flat roofs were designed as green roofs in accordance with the requirements of SUDS.

The building is designed and finished to a very high quality and all parties involved with the project, from the client through to the design team and contractors/sub-contractors, are rightly proud of.

View of feature stairs to new two-storey extension

Side elevation view of new two-storey extension

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ACEI ENGINEERING EXCELLENCE AWARDS: MICROFIRM

HIGHLY COMMENDED: McCRAE CONSULTING ENGINEERS – ST. MICHAEL'S COLLEGE REDEVELOPMENT

Senior school extension

This project involved two substantial extensions to the existing junior school and an extension to the existing senior school at St. Michael's College in Ballsbridge. The junior school extension was constructed in two phases. The first involved a two-storey classroom extension with a rooftop playground; the second phase consisted of a new GP hall, art room and science classrooms which replaced several older single-storey, ad hoc constructed, buildings. The third phase of the works involved the demolition of the existing swimming pool which was connected to the senior school and the construction of a new two-storey science block in its place.

McCrae Consulting Engineers was engaged, as part of a design team led by OBFA Architects, to act as civil and structural engineers. Due to a several factors this was a complex project to undertake, especially with the challenges that the Covid lockdowns posed during the main design phase and learning 'on the job' how to work as a team remotely. Despite all this there was a very successful outcome to the project and a very satisfied client.

There were several technical challenges to overcome in the design of this project. These were not limited to:

- The H&S challenges in developing a design that could be safely constructed on a relatively tight brown field, live school site.
- Limited site investigation in the footprints of the new extensions due to there being existing buildings and structures on them.
- Constructing adjacent to retained buildings.
- Integrating the new works into them without causing any damage.

Phase 2 senior school extension

There were four notable elements in the structural design of the building as follows:

- The main entrance to the junior school required the first floor to be cantilevered in two directions which posed several challenges, due to available walls, etc., in which to hide elements of structure.
- The architects requested that the building contain no blockwork. The aim of this was to reduce the amount of wet works and hence tighten up the proposed project program.
- Interfacing the new buildings with the existing buildings.
- Although all the school buildings are modern, construction was to take place adjacent to a number of protected structures on the site, including a gate house and a 3m-tall boundary wall.

An interesting design feature of the junior school was the cantilevered section of the first floor near the main entrance. The architects required the cantilever to go in two directions which posed a series of challenges with its support, especially considering the number of windows located in the façade in this area. Careful modelling resulted in a solution that successfully achieved the architectural intent. During the value engineering exercise, the omission of the cantilevers was identified as a potential structural cost saving, however, for aesthetic reasons, it was decided to keep this feature unaltered.

At an early stage, the design team along with the client decided that the buildings should be constructed as rapidly as possible to minimise impact on the running of the school. From a structural perspective, once off-site construction was ruled out, it was decided the best structural solution was a steel frame supporting precast slabs, with external walls framed in light gauge steelwork. In essence, wet trades such as blockwork were omitted from the design.

Although the omission of blockwork resulted in a lighter frame, the knock-on effect was a lack of stabilising cores. Substantial bracing was required to address this, which was then carefully hidden within the wall buildup. The external walls were constructed using a lightweight metal stud system, where possible box sections (limited to 100mm width) were used for columns and bracing to avoid having to build out around them. Significant coordination was required between the structural frame design, metal stud design and external cladding design.

The omission of the blockwork had several environmental benefits, as the dead weight of the building was reduced, steel section sizes and the size of the concrete foundations were reduced. The wall construction is also

Senior school entrance

Existing junior school with phase 1 and 3 extensions

Phase 3 junior school extension

better insulated than blockwork resulting in reduced running costs for the building.

Careful detailing was required at the interface of the new and existing building. In the senior school a section of the existing first floor student concourse was to be retained while the ground floor area and foundations were removed. The installation of a new support column was carefully co-ordinated to ensure new foundations were installed prior to the installation of this column. During these works, an existing wall that was supporting the existing precast concourse slab was discovered to have been built off the ground floor slab instead of the foundation. Two stages of underpinning were ultimately required to affect a safe solution and allow alterations to the first floor.

Prior to the swimming pool's demolition, the extent of the original senior school foundations could only be assumed as only limited excavation was possible within the school building. Following the demolition of the pool, the original school building foundations along the new extension were discovered to be sufficiently higher than anticipated and interacted with the extension ground floor slab. Upon careful examination, it was determined that significant sections of the existing foundations could be carefully cut away to allow space for the new construction once underpinning was completed.

As a result of the works carried out at St. Michael's College, the school once again has teaching facilities, in both the junior and senior schools, that can rival any school in the country. These modern extensions blend seamlessly into the existing facilities and make best use of what is ultimately a limited site.

Junior school arts room

Junior school hall

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ACEI AWARDS DINNER 2024

ACEI President 2023-2024 James Kavanagh hosted the annual awards dinner on 22 March 2024 in the InterContinental Hotel

Christine Kavanagh with James Kavanagh, ACEI President; Anne Marie Conibear, ACEI 1st Vice President and Presidential Award recipient, Damien Owens, Director General, Engineers Ireland with Deirdre Owens

Shane Dempsey, ACEI Director General; Kate Jennings, CEO, ACE UK with James Kavanagh, ACEI President and Anne Marie Conibear, ACEI 1st Vice President

Anne Marie Conibear, ACEI 1st Vice President; Gemma McCarthy, Regional Director / Dublin City Lead, Mott MacDonald Ireland; Sarah Ingle, Registrar, CIRI and Suzanne Purcell, General Manager, CitA

Rory McGowan, Director, Arup; Ronald Hoogeveen, Associate Director, MVRDV Architects with Jannetje Deman Hoogeveen; Cathal Quinn, Associate, Arup and Alan Duggan, Associate Director, Arup

Sarah Curran, Associate Director and Tracy Kearney, Director, DBFL Consulting Engineers with Lisa Hynes

Shane Dempsey, ACEI Director General accompanied by his wife Barbara Dempsey and PJ Rudden, Chair, Construction Innovation and Digital Adoption with the Department of Public Expenditure NDP Delivery & Reform

Diarmuid Hynes, Project Architect from O'Neil O'Malley Architect; Joe Greene, Chairman, Varming Consulting Engineers Ltd & Project Director for the Mechanical & Electrical Services; Martina Jennings, CEO, Mayo Roscommon Hospice Foundation and Peter Wyse, Senior Sustainability Engineer, Varming Consulting Engineers accompanied by his wife Helen Wyse

Dermot Fitzgerald, Vice Chair of the CIOB ROI Committee; Anne Marie Conibear, ACEI 1st Vice President; James Kavanagh, ACEI President and Brian Kavanagh, Chairman, Garland and ACEI President 2022

Joe Burns, Country Leader, Arup, Ireland; Paul Bruton, Joint Managing Director, Bennett; Sean Mahon, Managing Director, O'Connell Mahon Architects (OCMA) and current President of the RIAI; Paul Nicholls, Managing Director of Designer Group and Eamonn Stapleton, Managing Director, Clonmel Enterprises

Maurice Buckley, Chairman, Office of Public Works (OPW) and Glenn Nunan, Principal, Glenn Nunan Consulting Engineers (GNCE) with James Kavanagh, ACEI President

Derrick Edge, Future Leader adjudicator accompanied by his wife Heather Edge

ACEI award adjudicators: Richard Crowe, ACEI President 2016 and Paul Martin, Almoner, CIBSE Ireland

Graeme Tinney, Griffiths & Armour and Tara Cosgrove, Beale & Co LLP, ACEI sponsors with Sean Mahon, RIAI President

Shane Dempsey, ACEI Director General; Anne Marie Conibear, ACEI 1st Vice President; James Kavanagh, ACEI President and Ciaran O'Brien, Principal, OBFA Architects Ltd

Rebecca Bergin, Associate, Beale & Co LLP; James Kavanagh, ACEI President and Emma Kelly, Associate, Beale & Co LLP

Shane Dempsey, ACEI Director General; James Kavanagh, ACEI President; Louise Patterson, ACEI and Al Foran, entertainer

Simon Dunne, Chair, IStructE (Ireland); Graeme Tinney, Griffiths & Armour and Alan Hore, Chair CitA

Donnachadh O'Brien, Donnachadh O'Brien & Associates Consulting Engineers and Tim Murnane, ACEI 2nd Vice President

ACEI 2024 FUTURE LEADER AWARD

MULTIDISCIPLINARY TEAM EMBRACES NOVEL APPROACH TO DELIVER COMPLEX DATA CENTRE

Author – Chris Behan, associate, Arup

Inside a data centre © AdobeStock

This feature details the design and construction stages of a state-of-the-art, hyperscale data centre of significant intricacy for a confidential client.

The project entailed the development of a 70MW IT hyperscale data centre, accompanied by an office building, guardhouse and surrounding site infrastructure across approximately 50 hectares. The building footprint alone exceeded 60,000m^2.

The project design kicked off in 2017 followed by construction stage in 2019. The project then ran for four years until practical completion was achieved in 2023. Arup was the primary consultant responsible for the overall delivery of the project design with in-house disciplines including mechanical, electrical, building controls, civil, structural, façades, geotechnical, building information modelling, fire, computational fluid dynamics and health and safety.

Data centre projects often have aggressive programmes and high demands for quality and delivery. Typically, a designated 'project of record' is used to achieve these aspirations, meaning a previous project design of the client will be used as the basis for the new design. However, the project in question did not follow this approach, making it interesting but also challenging. At project kick-off, the client directed us to implement a global first-of-its-kind cooling unit and build a system around it. This immediately changed the landscape of the project.

The initial challenge was to develop an understanding of the intricacies of this cooling system. The cooling/heat rejection product chosen was at prototype stage and its first practical implementation would be on this project. Over 100 of these units (and the supporting hydronic system) were to be developed, tested, shipped to site, installed and commissioned to provide the significant levels of cooling needed. The team immediately engaged with the vendor's research and development team, who were already working closely with the client.

The system supporting the product was hydronically unique, and tailored to meet the product's specific requirements. Power efficiency, water efficiency and efficient heat transfer were all key aims based around the inclusion of a proprietary membrane which allows both air- and water-based heat transfer without mixing. To enable steady operation, an open loop cooling system in a parallel configuration was required. Very stringent pressure bands were required to be maintained for the cooling water header, leading to the development of dedicated spill and injection skids.

What followed was an intense nine-month design period involving numerous day-long and week-long brainstorming whiteboard sessions. An agile problem-solving approach was deployed to help stakeholders swiftly navigate through fundamental development hurdles. The resulting design was robust and sensitive to these diverse requirements.

In 2019, the construction stage of the project began. Our enhanced design development role continued and the first-of-a-kind nature of much of the equipment demanded high attention to detail as we moved to the technical reviews of vendor submittals.

Extensive factory visits and witness testing were vital in the evolution of the system over and above what was achieved during the design phase. Various customised test rigs were built to stress-test the system as much as possible prior to shipping. Any risks or issues identified were workshopped collaboratively on the factory floor. This in-depth testing brought value and comfort to the team that had developed the system design, but it was not exhaustive as the ability to test the system's interoperability or inter-dependencies on a two-unit rig was limited.

President James Kavanagh, presents the ACEI 2024 Future Leader Award to Chris Behan, associate, Arup

As the project progressed and construction of the building structure began, our role included management of all escalated design issues from each discipline, liaison with client and contractor leadership teams to agree paths to resolution, change control management, commercial management, fee monitoring and extension negotiation, as well as resource planning and management.

During the system commissioning stages, we continued our enhanced role beyond what would be typical. For example, a full-time mechanical engineer was assigned to site for over six months to attend initial system start-up and commissioning. This role assignment was additional to the resident engineer who separately oversaw quality inspections and supported more conventional systems on the project. This commissioning role was essential as it allowed for seamless and speedy collaboration with other stakeholders as queries and issues arose.

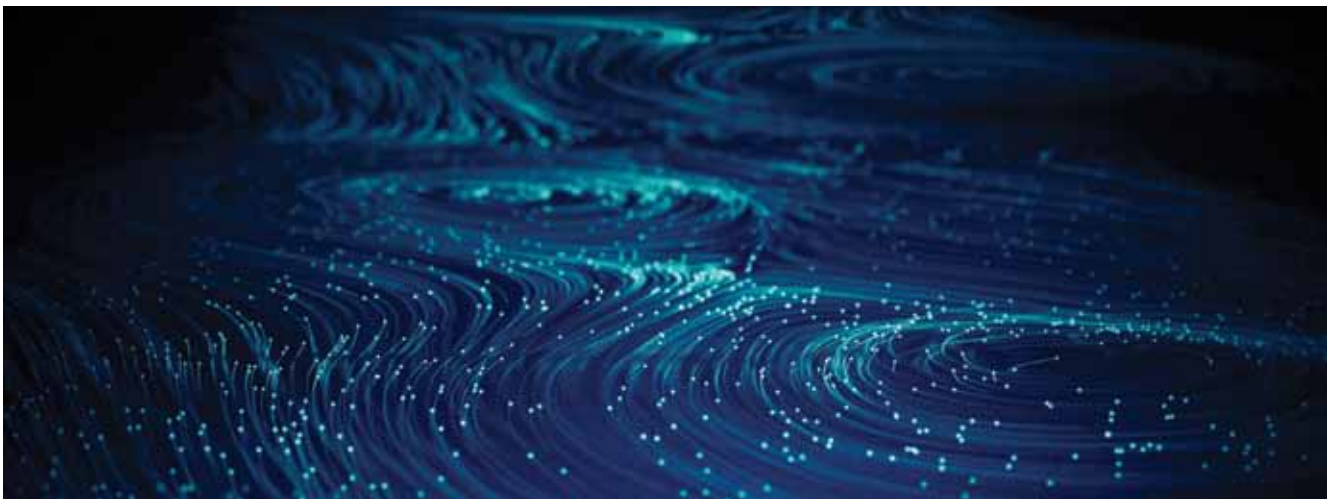
Activating the system for the first time marked a monumental milestone. While the product had been tested extensively, getting it to work within a parallel open loop circuit in practice was just starting. The primary challenge was to ensure robustness of process. A water-tight and repeatable process was developed, one that could be employed consistently, regardless of the hurdles met.

As with similar projects, programme was a priority, requiring quick and agile problem solving. To address issues promptly, clarity was essential. The key to progress was utilising and organising available system data effectively.

A dedicated commissioning hub was built to monitor and record the hundreds of data points. Twice-daily meetings were arranged, and a daily reporting template and dataset post-processing tool developed. More complex challenges encountered were broken down into smaller parts, enabling rapid and iterative test cycles. The rapid response team's agile approach proved effective, and the first circuits were successfully commissioned with some minor adjustments to be tested and resolved as part of the follow-on circuits.

A key client request was to capture learnings to facilitate transfer of knowledge onto future projects. We collated a detailed lessons-learned tracker, attended handover workshops with stakeholders for the client's subsequent projects and conducted extensive project design team lessons-learned sessions where each discipline and sub-consultant shared insights into what went well and, importantly, areas for improvement.

The project achieved successful completion in 2023, becoming a key component of the client's European infrastructure and an exemplar for data centre efficiency – now more important than ever. An atypical project, it is characterised by outstanding quality, attested to by the client's global leadership team.



EFCA FUTURE LEADER 2024: BEST PRESENTED PROJECT

Robert Corbally BSc. ME PhD CEng MIEI – principal engineer at Roughan & O'Donovan Consulting Engineers

Robert Corbally, BSc. ME PhD CEng MIEI

Congratulations to Dr Robert Corbally, principal engineer at Roughan & O'Donovan Consulting Engineers (ROD), on winning the 'Best Presented Project' category prize at the prestigious European Federation of Engineering Consultancy Associations (EFCA) Future Leader Competition 2024. In a field that included the best and brightest future leaders from seven European countries, the quality of Robert's presentation stood out for the judges, who described it as 'exceptional' and praised Robert's 'seamless integration of research into his consulting efforts'. Robert was nominated for the EFCA prize by the ACEI after being named as the runner-up for the ACEI Future Leader Award 2024. Robert received his prize at a gala dinner in Madrid on 23 May 2024.

Since joining ROD as a graduate engineer in 2012, Robert has established himself as an international expert in bridge and traffic engineering, developing novel technologies in these fields. His research work has been published in several prominent scientific journals. ROD's embrace of the new digital era of designing, building and managing infrastructure is underpinned by the belief that novel research and data-driven solutions represent the future of the engineering industry. Robert has been instrumental in championing the technology initiatives that underpin ROD's most valued client relationships, driving its reputation as a leader in using technology to power design and helping the firm attract the best talent.

Robert's work involves processing and visualising large, complex data sets to help road, rail and bridge infrastructure owners extract real value from their assets across the entire life cycle. His team enables road and rail operators to make informed decisions when investing in resilience measures by carrying out risk assessments that identify the parts of a network most vulnerable to natural disasters. They help bridge owners save money and avoid carbon-intensive repairs by using advanced probabilistic methods to calculate the safety of a bridge structure, often proving a structure is safe despite traditional deterministic design/assessment methods indicating otherwise. They also identify scenarios that can put a bridge at high risk by using machine learning to demonstrate how, when acting simultaneously, multiple different loads - for example wind, traffic and temperature - can influence the overall behaviour of a bridge.

The European Federation of Engineering Consultancy Associations

has awarded

Robert Corbally

The Best Presented Project Prize

in the EFCA 2024 Future Leaders Competition

for his outstanding contribution to the eMCS (enhancing Motorway Operation Services) Programme

Madrid, 23rd of May 2024

An image of the main control room videowall in TII' s motorway operations control centre

View of a gantry displaying speed limits and associated messaging to drivers

Robert believes fundamental research and knowledge advancement are key to ensuring the ever-changing needs of the engineering industry and society are met. He is a strong advocate for the incorporation of research into engineering consultancy and for the translation of research into client solutions. In 2020, he undertook a PhD in bridge condition monitoring at University College Dublin (UCD) while continuing his consultancy work at ROD - a decision prompted by the global shift towards digitalisation and the growing awareness of the potential for machine learning and AI-based technologies to transform the civil engineering industry. Robert's research, which focused on the development of a novel machine learning technology for bridge condition monitoring, has received multiple national and international awards.

Robert is keenly aware of the business efficiencies that the development and application of cutting-edge solutions to engineering problems can offer clients. As such, he continues to maintain his involvement in academic research and teaching while pursuing the commercialisation of research outputs at ROD.

SPECIALIST CONSULTANCY SERVICES

Robert has established a team of specialist engineers and data analysts within ROD with expertise in computer science, machine learning, structural health monitoring, bridge assessment, aerodynamics, traffic and transportation engineering, railways and probabilistic risk assessment. His team's integrated approach to harnessing technology – coupled with in-depth, sector-specific knowledge – helps clients navigate today's dynamic environment, so their businesses remain responsive, scalable and adaptable.

Artificial intelligence

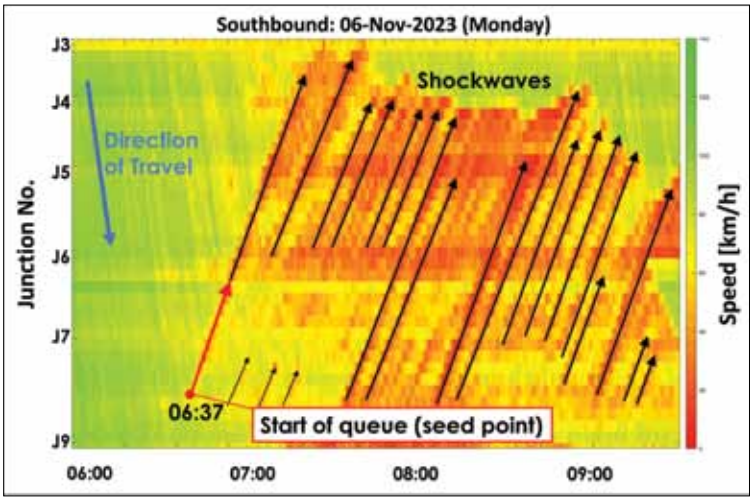
In 2024, Robert's team prepared a report for the World Road Association (PIARC) outlining current and expected uses of artificial intelligence (AI) technologies in the road sector by 2030. In addition to setting out the benefits of AI technologies as tools to help road operators plan, design, construct, maintain and operate road networks, the report provided recommendations on how road operators should adapt in readiness for the adoption and integration of AI.

In 2024, Robert led his team to deliver a first-of-its-kind pilot study for Transport Infrastructure Ireland (TII), evaluating the benefits of AI-based data-fusion software for detecting and responding to incidents on Ireland's motorway network. The team demonstrated how this novel approach can improve incident response times by enabling control room operators to detect incidents earlier than they can at present.

Motorway operations

Robert's team played a key role in delivering TII's enhancing Motorway Operation Services (eMOS) programme, which involved the deployment of variable speed limits (VSL) on the M50 motorway and the design and construction of a state-of-the-art motorway operations control centre for TII. They developed algorithms for predicting the onset of congestion before it occurs and are delivering automated incident and congestion detection functionality to allow overhead gantries to automatically display reduced speed limits and information messages to drivers. In so doing, they are significantly improving TII's real-time monitoring capabilities, fostering safer driving environments on the national road network.

ROD is undertaking a detailed analysis of the Humber Bridge to inform the bridge owner, Humber Bridge Board, of its in-service behaviour



Heatmap visualisation of traffic speeds on the M50 showing 'shockwave' behaviour on the southbound carriageway between junction 9 and junction 3

Structural health monitoring

The ongoing maintenance and asset management of bridges represents a significant challenge for infrastructure owners. To ensure real value is extracted from bridge assets across the entire life cycle and guide bridge owners' decision-making in relation to investment, Robert and his team are investigating techniques for monitoring and understanding the in-service behaviour of bridges.

As part of a research collaboration with UCD and the University of Nebraska-Lincoln, Robert was involved in a first-of-its-kind, field-test of damage detection techniques for bridges. Damage was systematically induced in an out-of-service bridge instrumented with an array of sensors to test the development of novel machine learning approaches for damage detection.

In 2024, Robert and his team began providing support to the Humber Bridge Board (HBB), the owner of Humber Bridge, the longest suspension bridge in the UK. They are applying their skills in bridge condition monitoring to carry out detailed analysis of data measured from the bridge to help HBB better understand the in-service behaviour of the bridge.

Software development

Much of the work undertaken by Robert and his team requires the development of software to facilitate the processing, analysis and fusion of multiple large-scale data sets to extract valuable insights for clients. This is best demonstrated on eMOS where the analysis tool they developed helped motorway operators visualise traffic behaviour, which subsequently informed TII's traffic management strategies. A time-space heatmap shows how congestion patterns develop, by allowing the identification of 'seed points' i.e. where congestion typically starts, and 'shockwaves' i.e. when a small disturbance in traffic flow causes traffic to propagate along the carriageway, often for many kilometres. This software has been used to support the development of variable speed limit plans to improve traffic safety, minimise incidents and counteract congestion on the M50.

Robert's experience in the field of bridge engineering has led to him developing and implementing advanced solutions for the design, assessment and monitoring of bridges. He has developed software for TII to examine the effects of abnormal loads on bridges to facilitate a more streamlined process for issuing permits for heavy vehicles travelling on the motorways. He was heavily involved in the development of the world's first Class-A (highest accuracy) Bridge Weigh-in-Motion system for automated weighing of trucks at full traffic speeds. This technology allows traffic weight data to be collected at full driving speeds, providing infrastructure operators with invaluable information on traffic loads and enabling a more accurate estimation of pavement or bridge deterioration and improved transport planning.

Robert believes that accelerating technological advancements are driving a seismic shift in how we work across the engineering industry. With his detailed technical expertise and strong leadership qualities, he is helping ROD pave the way forward for consulting engineers in the new digital era.

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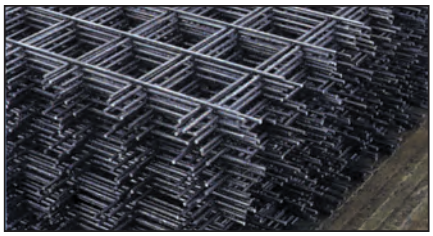
PRODUCT RANGE

IRISH MANUFACTURER



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IRISH MANUFACTURER

SALES & SUPPORT TEAM

Southern Ireland	John O'Dea	+353 (0)87 2578211
Midlands/West	Sean McDermott	+353 (0)87 2564663
East/South East	Enda Fitzpatrick	+353 (0)86 1414741

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ACEI DERRICK EDGE FUTURE LEADER AWARD

We are proud to announce that the ACEI Future Leader Award has been renamed to honour Derrick Edge, a former ACEI president and dedicated champion of emerging engineering talent

Chris Behan ACEI Future Leader with Derrick Edge, FL adjudicator

WHY FUTURE LEADERS MATTER

Future leaders are at the forefront of tackling the critical challenges of our time, from housing and infrastructure to the climate crisis.

Are you an aspiring leader ready to make an impact? The 2025 Future Leader Award is now closed for applications. Share your work, showcase your talent, and step into the spotlight as one of the engineering leaders of tomorrow.

The 2025 ACEI Derrick Edge Future Leader Award will be presented to a consulting engineer with excellent communication skills, business acumen, technical capabilities and strong ethical values. The award competition is a great opportunity to showcase your experience to date, add value to your credentials and be publicly recognised as a rising talent by the senior leaders in your profession.

There has been a great response to the call for applicants for this award. Four excellent candidates have been selected for interview, after which two finalists will be named. These two finalists will be invited to send their entry to the EFCA Future Leaders Award.

The winner will be announced at the ACEI Engineering Excellence Awards Dinner on 28th March at The InterContinental Hotel.

The EFCA Future Leaders Competition is open to professionals aged 35 and under working for EFCA-affiliated firms. This event aims to showcase Europe's next generation of leaders and highlight the diversity and attractiveness of pursuing a career in our industry.

The competition offers member associations a unique opportunity to engage with these future industry leaders and showcase their countries' top talents. Together, we enhance the visibility of our strong and growing EFCA network within our sector and beyond.

Since the 2024 competition, new submission processes and five excellence categories have been introduced to highlight the future leaders' role within a project and reflect the extensive skills required to meet society's expectations of professionals in our sector:

- Quality of Submission / Presentation;
- Engineering;
- Digital & New Technologies;
- Impact on Climate & Biodiversity;
- Contribution to Society.

The winner of the EFCA Future Leaders Competition 2024, Diego Apellániz Quintana (pictured), is head of design at Kevee (Germany). Driven by the urgency of climate change and recognising the significant impact of the built environment on this crisis, he has spearheaded the development of a comprehensive tool that integrates AI, structural design, and CO2 assessment. Widely adopted by architects and engineers worldwide, this tool plays a crucial role in curbing embodied carbon in construction practices. Users can employ it to compare the embodied carbon of different slab systems, pinpointing the most environmentally sustainable design, which can then be assessed against diverse criteria. Notably, its applicability extends beyond new constructions to encompass the renovation of existing buildings. Expanding on this accomplishment, Diego is currently directing his efforts towards developing an application to automate the design process for residential homes.

ACEI QUALIFICATIONS FOR MEMBERSHIP

Lee Road Water Treatment Plant, Cork

QUALIFYING AS AN ACEI MEMBER

Summary of qualifications for ACEI Membership

- Agree to abide by ACEI Code of Conduct / Rules for Membership.
- Managed by ACEI Fellow Professional Consulting Engineers (FConsEI).
- Have excellent professional reputation and ethical standards in place.
- Be primarily engaged in providing technology based intellectual services.
- Maintain appropriate PI Insurance.

Becoming a Member:

- Applications are approved by the Executive Board.
- A proposer and a seconder, both ACEI Fellow Professional Consulting Engineers must support the application.
- Notice of your nomination for membership, as well as any other information the Executive Board considers relevant, will be sent to each new member.

QUALIFYING AS AN ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER (FCONSEI)

FConsEI status signifies that an individual is a leader in the consulting engineering sector, has a proven track record of excellence and is committed to quality, safety and sustainability in all their work. Applicants must:

- Be eligible for inclusion, or already be included, in the Engineers Ireland Chartered Engineer (CEng) register, or be deemed to have equivalent qualification by ACEI Executive Committee. If chartership is not with Engineers Ireland, a list of UK engineering professional titles that are recognised can be found at **www.engc.org.uk/about-us/our-partners/professional-engineering-institutions/**
- Have seven years' minimum professional experience.
- Have three years' minimum practice as a consulting engineer.
- Be a partner/shareholder or in control of the management decisions of the company.
- Be directly responsible for dealing with clients and committing firm financially to client commissions.

Process:

- Every person interested in becoming registered as an ACEI Fellow Consulting Engineer must make an application in writing to be approved by the Executive Board.
- A proposer and a seconder, both ACEI FConsEI, must support each application.
- Following approval, the abbreviation "FConsEI" may be used exclusively to signify registration as an ACEI Fellow Professional Consulting Engineer.

QUALIFYING AS AN ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEER (RCONSEI)

Registered Professional Consulting Engineers have achieved Chartered Engineer status and have demonstrated excellence in their work and commitment to quality, safety and sustainability in their work over the past four years at least. Applicants must:

- Hold a third level professional engineering qualification.
- Be eligible for inclusion, or already be included, in the Engineers Ireland Chartered Engineer (CEng) register. If chartership is not with Engineers Ireland, a list of UK engineering professional titles that are recognised can be found at **www.engc.org.uk/about-us/our-partners/professional-engineering-institutions/**
- Be employed in an ACEI Member firm and exercise a management role as a consulting engineer.
- Have four or more years of ACEI approved professional engineering experience.
- Have completed an ACEI approved business related course.

Process:

- Applicants must complete an application form and provide supporting documentation for approval by the Executive Board.
- A proposer and a seconder, both ACEI FConsEI, must support each application

APPLY TODAY FOR MEMBERSHIP If you have any queries, please contact **louise.patterson@acei.ie**

CORPORATE AFFILIATE MEMBERSHIP

Corporate Affiliate Membership is open to any engineering related professional company, which does not fulfil the requirements for full membership, but:

- which has an interest in the consulting engineering industry.
- supports the ACEI objectives and agrees to abide by the ACEI Code of Conduct.

In general terms, ACEI encourages Affiliate Members to play an active role in the association. This is, on the one hand, an advantage for Affiliate Members. At the same time, Affiliates bring a wealth of varied experience to the consulting engineering industry and to ACEI.

BENEFITS FOR CLIENTS IN SELECTING AN ACEI MEMBER COMPANY

Selecting a consulting engineer for a project is the most important decision a client makes. The success of any project depends on obtaining the most technically competent, experienced and reputable expertise to ensure a successful sustainable project in line with the client's requirements and in harmony with the built environment.

ACEI Membership Stands for:

- Ethics and integrity
- Reliability
- Impartial professional advice

Membership Guarantees:

- Academic qualifications
- Professional experience
- Expertise and know-how

São Paulo monorail

SELECTING A CONSULTING ENGINEER

Artistic impression of Luas extension to Finglas, including active travel options alongside track route through Tolka Valley park © Egis

Selecting a consultant is one of the most important decisions an owner or client makes. The success of any project often depends upon obtaining the most able, experienced and reputable expertise available.

The best project results are achieved when there is a true professional relationship of absolute trust between the client and the consultant. This is because the consultant must make sound, objective decisions and act in the best interest of their client at all times. The method of selection should therefore seek to develop mutual confidence between the two parties.

There are two key points to consider when deciding what method of selection to employ:

Since precise professional performance specifications cannot be written, it is difficult, if not impossible, to equitably apply the principles of competitive bidding. That is to say, if the competition is based on price, different consultants may anticipate providing very different levels of service. Although it is possible to write a performance specification for the physical aspects of the project itself, it is very difficult to write suitable specifications for how a consultant should perform. This difficulty arises because factors such as the extent of investigations, the consideration of alternatives or the quality of design and levels of innovation cannot be quantified. Each factor not only depends on the mechanics and procedures employed in executing professional work, but also upon the expertise, experience, judgement, innovation and imagination of the consultant and the supporting staff working on the project.

Successful consulting services depend on sufficient time spent by properly qualified people. Thus the method of selection should not force fees down to the point where consultants cannot afford to assign properly experienced staff for sufficient periods of time.

Inadequate fees lead to the reduction of the scope and quality of the service by spending less time on the project or assigning lower paid and usually less qualified personnel to the project. Thus lower consulting fees give no assurance of lower total project costs. Inadequate engineering often leads to higher construction costs, higher material costs and greater life cycle costs. All of which are likely to cost far more than the potential saving made on design fees.

THE IMPORTANCE OF QUALITY-BASED SELECTION (QBS) FOR THE PROCUREMENT OF CONSULTING SERVICES

Selection based on quality

The method of selection that best meets all factors is quality-based selection. That is, the client chooses the consultant on the basis of professional competence, managerial ability, availability of resources, professional independence, fairness of fee structure, professional integrity and quality assurance systems.

The recommended procedure for selection of consulting firms is to:

- identify potential firms with relevant experience
- select the most appropriate firm
- negotiate the fee on a mutually agreed scope of services with the selected firm
- execute appropriate agreement terms.

ADVANTAGES OF QUALITY-BASED SELECTION (QBS)

QBS delivers the best value for money

Selecting a consultant based on quality ultimately provides the best value for the client. Experience has demonstrated that the competency of the consultant is the key to an efficient, cost-effective project. Top-quality consultants bring best practices to the project. This translates into the best possible solutions for the client and the end user; which means the appropriate technology, innovative solutions and the lowest life cycle cost. The QBS process encourages consultants to continually improve their skills and strive for creativity and innovation because their selection depends on it. The client is the beneficiary of these best consultant practices at competitive fees. QBS leads to:

Fairer Fees

Fees will be fairer to both the client and the consultant because they are negotiated after the parameters of the assignment are fully established. Consultants will not be under pressure to minimise their efforts by devoting less time to project details, by considering fewer alternatives, or reducing the amount of checking. This means the project will be safer, more efficient, cheaper to build and more economical to operate over its life cycle.

It has been suggested that the client is at a disadvantage when negotiating fees after the consultant is selected. This is not the case, since there is a wide spectrum of documentation on fee guidelines available to the client. In addition, the client can seek appropriate advice from other consultants and professional organisations.

SELECTION CRITERIA

The most important standards by which to judge a consultant's suitability to carry out a particular project are:

- professional competence
- managerial ability
- availability of resources
- impartiality
- fairness of fee structure
- professional integrity
- quality assurance system

The client should seek information on all these matters by:

- obtaining comprehensive written pre-qualification information from the consultant in a form appropriate for the assignment;
- interviewing senior personnel identified for the assignment;
- if necessary, visiting the premises of the consultants and examining systems and methods of work as well as hardware and software capabilities;
- where applicable, speaking to previous clients.

KAUST Reefscape Restoration KSA © KAUST

Professional Competence

The competent professional consultant will be able to offer the client a team that will have the education, training, practical experience and judgement to carry out the project.

The client can evaluate the professional competence of the team by examining;

- the detailed resumes of key staff members and their relevant experience on similar assignments;
- the list of similar projects carried out by the firm and present staff;
- the approach to and methodology for the proposed assignment.

In addition, the client should validate the performance of the consultant on similar previous assignments with owners and examine the performance history of the consultant in similar foreign countries.

Managerial Ability

To successfully achieve project objectives, a consultant must have managerial skills to match the size and type of the project. The consultant will need to marshal skilled manpower and adequate resources, maintain schedules and ensure that the work is planned in the most efficient manner. The consultant will need to be able to deal competently with contractors, suppliers, loan agencies, government agencies and the public during the course of the project. At the same time, the client must be informed of the development of the project to be able to make decisions quickly and accurately.

The client can assess the managerial ability of the consultant team by examining;

- past projects performance record;
- the documentation and project control procedures which guide the performance of the consultant's services;
- the success record of the proposed project manager on previous projects;
- the project management and quality control approach proposed for the new assignment;
- the progress reporting and client communication techniques proposed for the assignment;
- the success rate on previous projects of the consultant in transferring technology.

Availability of Resources

When selecting a consultant it is important to establish whether the firm has sufficient financial and manpower resources to carry out the project to the necessary detail and standards commensurate with the time and fee schedule. This will indicate the extent to which the firm's current resources are committed. The client should verify that the consultant has sufficient staff available at the relevant experience levels and that there are sufficient financial resources to carry out the work.

The client can validate the adequacy of the consultant's resources by reviewing:

- the number of qualified professional and managerial personnel committed to the project team;
- the deployment of the project staff and how the team will be organised with lines of responsibility;
- the staff commitments to other work for the duration of the proposed project;
- the new assignments to projects of a similar size conducted by the consultant;
- the credit worthiness of the firm;
- the ready access to supporting resources;
- the proximity of the firm's offices to the proposed work.

Impartiality

When the client employs a consultant who is a member of one of FIDIC's member associations, such as ACEI, the client has the assurance that the consultant subscribes to FIDIC's Code of Ethics, is competent, and provides impartial professional advice.

The consultant is remunerated solely by the fees paid by the clients. The consultant has no commercial ties that could prejudice their impartial judgement.

"ONE FACTOR, QUALIFICATIONS, FAR OUTWEIGHS ALL OTHER CONSIDERATIONS IN RETAINING CONSULTANTS, ESPECIALLY PRICE."

THE INSTITUTE FOR MUNICIPAL ENGINEERING,
A DIVISION OF THE AMERICAN PUBLIC WORKS ASSOCIATION

> “THE GOALS OF DESIGNER SELECTION SHOULD NOT INCLUDE MINIMISING FEES. MAKING FEES PART OF THE SELECTION PROCESS WILL NOT SAVE TAXPAYERS MONEY. RATHER, THE PRACTICE IS LIKELY TO INCREASE THE ULTIMATE COSTS OF THE PUBLIC BUILDING SYSTEM DUE TO REDUCTION IN DESIGN QUALITY….”
>
> WARD COMMISSION

If the consultant is a member of a consortium, they may be remunerated from the proceeds of the consortium. In this case, the consultant must consider the consortium partners to be clients.

The consultant is therefore able to approach all assignments objectively and by exercising sound professional judgement and prudent economic principles, can provide solutions to serve the clients best interests.

The client may wish the consultant to furnish an affidavit confirming that no potential conflict of interest in the performance of the proposed assignment exists.

Fairness Of Fee Structure

Consultants need to be adequately compensated to ensure that they are able to provide high-quality services with proper attention to detail, alternative considerations, innovation and cost-effective solutions.

Consultants must maintain highly competent staff through continuous education and training initiatives and give constant attention to research and development to maintain state-of-the-art expertise and up-to-date equipment and technology.

The fee structure should be adequate to achieve the objectives of the project and meet the expectations of the client. At the same time, the fee must generate a reasonable profit for the consultant so they can remain in business ready to serve the client with well trained, experienced staff and the latest in innovative approaches.

La Defense Arena Paris ©Nicolas Borel

Lesotho Highlands Water Project © Egis

Professional Integrity

Mutual trust and integrity represent the oil in the machinery of the relationship between client and consultant. Without it the machine becomes inefficient, hot through friction and finally can come to a standstill. If absolute trust exists between the client and the consultant and both parties have integrity, then the project will run more smoothly, the results will be better and both parties will be happier. These very factors of mutual trust and integrity are the reasons why consultants are commissioned by the same client again and again.

SELECTION PROCEDURE

In the scarce financial resources environment of today, the quest must be for the best possible solutions for the client and the end user. This requires the use of appropriate technology, innovative solutions, the lowest life cycle cost, all executed with prudent resource utilisation, environmental sensitivity and sustainability. The end user deserves the best the consulting profession can deliver and that quality comes from top qualified firms at a competitive price. A selection procedure that allows the consultant to use creativity, innovativeness, experience, seasoned judgement and best practices in the best interest of the client in return for fair and adequate compensation, gives the best results.

Competition between consultants that results in the best quality of services, is of benefit to the client and the public and in keeping with the philosophy of private enterprise. This competition, however, should be based on competence and qualifications. In an environment where investment money and loan funds are in short supply, it is in the interest of all concerned to focus on quality and value.

TERMS OF REFERENCE

Draft the terms of reference for the selection which should include an assessment of the physical magnitude and resource requirements of the project. The required services can be identified under the following headings:

- areas of expertise and categories of service
- a statement of work defining the project
- a time schedule
- regional factors such as geographic location, language, logistics, allowances, duration of commission
- type of contract proposed
- a project budget

PRE-QUALIFICATION

Make a list of consulting firms which appear to be qualified for the project. This is often referred to as the pre-qualification list.

Names of possible consultants can be obtained from a number of sources including:

- ACEI Directory of Members
- persons or organisations that have employed consultants for similar projects by advertisement in the National Press for an "Expression of Interest" providing information on the firm relevant to the project.

SHORTLIST

Draw up a shortlist of not more than three to five consulting firms which appear to be best qualified for the project, bearing in mind the following factors:

- relevant experience
- availability
- capacity to complete the work
- access to support resources
- past performance on client contracts
- location of the firm's office in relation to the work
- political, social and environment or sensitivity
- security level required

REQUEST FOR PROPOSALS

The client may at this stage invite the most suitable consultant to negotiate an agreement on a mutually agreed upon project scope, fee and contract terms. More formally it can write a letter to each of the firms on the shortlist and invite proposals.

A request for proposals should contain at least the following:

- the statement of work, terms of reference and supporting documentation
- submission or closing date
- basis of evaluation
- a statement of information to be included in the proposal
- expected selection date

Bridge S02C on N22 Macroom Bypass © Egis

"THE COMMON LAW OF BUSINESS PROHIBITS PAYING A LITTLE AND GETTING A LOT"

JOHN RUSKIN FROM 1860

Where appropriate, the request for proposal should also include the following elements which may have influence on the cost of consulting services:

- methodology
- alternatives to be considered; innovation invited
- transfer of knowledge/technology, local participation and training
- detailed target cost estimates for the project
- compliance with desired time schedule

The information required will include:

- past experience with projects of a similar nature
- details of organisation, project control, financial control
- size and responsibilities of staff
- type of organisation and managerial method proposed for executing the work
- quality assurance organisation
- knowledge of local condition
- local resources
- project methodology
- availability of resources
- approach and commitment to technology transfer, if appropriate

To assist the consultant in preparing a proper response to the proposal, the client should encourage the consultant to evaluate the scope of work by visiting the site and by meeting with the client.

ASSESSMENT OF PROPOSALS

Once the proposals are received, the client should systematically evaluate and rank each proposal against the basis for selection outlined in the request for proposal. This process helps to maintain the integrity of the selection process and can involve:

- formation of a selection committee
- a weighting or score for each criteria
- independent evaluation of firms by each member of the selection committee
- individual score sheets being collated and
- a documented record of the selection process being retained

Clients may be assisted in this evaluation process by an independent consultant.

If the project size and complexity warrants it, the client can include in the evaluation interviews of key consultant team members, visits to consultant's premises, discussions with consultant's past clients and project end users and inspections of past projects.

COST EFFECTIVENESS

The correct selection of a top-qualified consultant has major impact on the overall project costs. The decisions made by the consultant in the first five percent of their involvement with a project, have the highest leverage on the life cycle cost of the project. Compared with project life cycle costs, the consultant's fees range between one and two percent. Since life cycle cost impacts between excellent and marginal design can easily exceed the consultant's total fee, it makes no sense to select the consultant on the basis of lowest fee. In an environment where investment money and loan funds are in short supply, it is in the client's best interest to focus on quality and deliver value.

Quality-based selection does not involve consultants preparing costly priced proposals which have the effect of escalating the overall cost of consulting services.

FORMS OF AGREEMENT

When drawing up the contract for consulting engineering services, both the client and the consultant should protect their interests by using the model Conditions of Engagement documents produced by FIDIC or the Institution of Engineers of Ireland.

These standard documents are highly recommended as important instruments for reaching a fair and sound agreement between the client and the consultant.

One or two percent more spent on design costs can save up to 10 or 15 percent of the project.

ACEI OBJECTIVES AND CODE OF CONDUCT

1. OBJECTIVES

The objectives of the Association are:

(a) To promote the advancement of the profession of consulting engineering by:

- Encouraging its members to have regard to the public interest, particularly in the areas of health and safety in the discharge of their duties;
- Seeking to ensure that integrity, competence and quality remain the hallmarks of Association membership and to find ways of encouraging members to uphold these principles;
- Acting for and protecting the interests of practising Consulting Engineers;
- Encouraging its members to deliver a quality service to clients;
- Developing and maintaining a Code of Conduct for members;
- Encouraging its members to carry an appropriate level of Professional Indemnity Insurance;
- Dealing with complaints against members;
- Preparing advisory notes on new legislation and regulations affecting engineering and construction;
- Identifying and seeking to influence the course of emerging issues, at local, European and international levels that will impact on members;
- Preparing and enforcing rules, bylaws and disciplinary procedures for members that recognise natural justice, the demands of society, the changing and competitive nature of the business environment, and the need for a high standard of professional conduct;
- Preparing and keeping up-to-date Conditions of Engagement of Consulting Engineers for contracts of all types;
- Promoting the status of Irish Consulting Engineers by being a voice on their behalf on relevant key issues affecting society;
- Assisting in the development of engineering education through establishment of interfaces with universities, colleges and other accredited Institutions;
- Developing a programme of continuous professional development courses and seminars to enable members and their staff to maintain the necessary expertise in the areas of business, current regulations and codes of standards and best practices within the constantly changing professional, business, legal and regulatory environment in which they operate;
- Ensuring that a strong Irish-based Consulting Engineering profession is developed and strengthened to support the ongoing socio-economic development of the country, including the protection of our heritage and the environment;
- Influencing public bodies on procurement procedures and the use of Quality Based Selection (QBS) for the procurement of consulting engineering services;
- Provide international links to other similar organisations through its membership of International Federation of Consulting Engineers / European Federation of Engineering Consultancy Associations (FIDIC / EFCA).

(b) To associate for consultation and co-operation those engineers who are primarily engaged in practice as consulting engineers in Ireland.

(c) To watch over, promote and protect the interests and rights of the profession of consulting engineering in Ireland.

(d) To afford government departments, professional institutions, public bodies, educational and technical institutions, trade associations and other institutions in Ireland, facilities for conferring with and ascertaining the collective views of consulting engineers.

(e) To assist in the introduction, interpretation and application of rules of professional duties and conduct.

(f) To outline the qualifications and duties of a consulting engineer and their proper relations with their clients, and to provide a standard of accepted consulting engineering practice.

(g) To purchase, lease, hire, occupy or otherwise acquire lands, house, rooms, offices, buildings, wharves, quays or depots, ships, boats, hulks, and other real or personal property, and any right, easement or privilege necessary or convenient for the purpose of carrying out the objects and purposes of the Association, and for the like purpose to engage or dismiss any person or persons.

(h) To take any gift of property whether subject to any special trust or not for any one or more of the objects of the Association.

(i) To sell, manage, lease, mortgage, dispose of, invest or otherwise deal with all or any part of the property of the Association.

(j) To borrow money with or without security as may be deemed necessary and expedient for carrying out the purposes of the Association.

(k) To draw, make, accept, endorse, discount, execute and issue promissory notes, bills of exchange, bills of lading, warrants and debentures and other negotiable and transferable instruments.

(l) To establish and support, and to aid in the establishment and support of any other association formed for all or any of the objects of the Association

if considered desirable by the Association.

(m) To contribute to any benevolent fund, for benefit of the members, if considered desirable by the Association.

(n) To secure mutual support and co-operation among its members.

(o) At the discretion of the Association to assist, protect and indemnify members who may, on the direction of the Association, help either in carrying out the objects of the Association or in giving effect to its decisions or desires, or who may be injured or prejudiced by reason of their giving effect to any such decision or desire. Provided always that the Association shall not support with its funds any object or endeavor to impose or procure to be observed by its members or others; any regulation, restriction or condition which, if an object of the Association, would make it a trade union.

(p) To do all such other things as are incidental or the Association may think conducive to the attainment of the above objects or any of them.

(q) To do all such other things as are incidental or the Association may think conducive in order to uphold the Code of Conduct of the Association.

CODE OF CONDUCT

1. Role of the Association

The Association is a professional body representing the business and professional interests of firms and individuals engaged in the practice of Consulting Engineering. It acts as the voice of the Consulting Engineering profession; assists in resolving issues of importance for clients and consultants alike; and contributes to the development of relevant public policy and papers through involvement in working groups, government committees, and related fora.

2. Code of Conduct

The Association believes that it is essential that its Members should always act in an ethical and principled manner, and it therefore requires all Members to abide by a strict Code of Conduct which is supported by a written Complaints Procedure.

2.1 General

In carrying out its professional duties, an ACEI Member shall:

- Have full regard to the needs of society to protect the public interest;
- Recognise the fundamental role that a healthy, functioning environment has for the wellbeing of society and that this is under threat from climate change;
- Act consistently with the United Nations' 2030 Agenda for Sustainable Development;
- Preserve the integrity of the profession of consulting engineers; and
- At all times provide an impartial service of high quality in accordance with this code.

2.2 Standards & Codes

- Members shall endeavour to respect and comply with the regulations, standards and codes of practice appropriate to their profession and to the task entrusted to them.

2.3 Competence & Standards of Training

- Members shall maintain knowledge and skills at levels consistent with development in technology, the needs of the environment, legislation and management and exercising reasonable skill care and diligence in the services rendered to the client.
- Members shall perform services only when competent to perform them.
- Members shall be committed to the principle of professional development of the management team and should undertake appropriate programmes of staff training.

2.4 Professional Control

- Members shall organise their work for a client in such a way that it is under the direct control of appropriate professionally qualified or suitably experienced persons.

2.5 Remuneration

- Members shall be remunerated solely by the client. No direct or indirect benefit shall be received from any other party.
- Remuneration agreed between a member and its client should be such as to enable the Member to carry out its responsibilities to the client adequately in every respect.
- Members shall neither offer nor accept remuneration of any kind which in perception or in effect either: (a) seeks to influence the process of selection or compensation of Members and / or their clients or (b) seeks to affect the member's impartial judgement.

2.6 Impartiality

- Members shall be impartial in the provision of advice, judgment or decisions.
- Members shall inform the client of any potential conflict of interest that might arise in the provision of services to the client
- Members shall not accept remuneration which prejudices independent judgment.
- Members shall not accept from any persons or company, any kind of favour which might compromise the impartiality of the member's decision, or prejudice their duties to their client.
- Members shall not be the medium of payments made on their client's behalf (unless specially so requested in writing by their client) but shall only issue certificates or recommendations for payment.

2.7 Conflict of Interest

- Members shall avoid all conflict of interest with their client.
- Members shall promptly inform clients of any shareholdings, association, connections or other commercial interests which the client might consider

would impair the impartiality of their professional advice or the quality of their service.

2.8 Fairness to Others

- Members shall neither carelessly nor intentionally do anything to injure the reputation or business of others.
- Members shall neither directly nor indirectly knowingly attempt to take the place of another member already appointed for specific work.
- A Member shall build its professional reputation on the quality of its service and shall not compete unfairly with others.
- A Member shall not pay, or offer to pay, any commission or contribution in order to secure or retain work.
- A Member shall not falsely, maliciously or recklessly, directly, or indirectly, injure the professional reputation of another member.

2.9 Reviewing the Work of Others

- A Member shall not knowingly review or appraise the work of another engineer for the same client, without notifying such engineer.

2.10 Taking Work Over

- A Member shall not take over the work of a fellow Member, for the same client, unless it has satisfied itself, as far as it reasonably can, that the connection of such Member with the work has been terminated; that the legitimate interests of the member have been protected, and that it has notified the member concerned and received a request in writing from the client to take over the work.
- A Member shall not take over the work of another member until that Member's appointment has been terminated by the client in writing.
- A Member shall not knowingly solicit project work from a client who has a Member or Members already engaged for the same project.

2.11 Clarity of Engagement

- Members shall ensure that the terms of their engagements are clearly stated and in writing.

2.12 Quality Management

- Members are encouraged to adopt and maintain a system of quality management.

2.13 Indemnity Insurance

- Members shall maintain appropriate professional indemnity insurance cover.

2.14 Working Overseas

- The Association is a member of the International Federation of Consulting Engineers (FIDIC) and of the European Federation of Engineering Consultancy Associations (EFCA).
- Members shall order their conduct according to the rules and standards of those bodies when working in a country where a member of those bodies is constituted.

2.15 Bringing the Association into Disrepute

- A Member shall not by its actions bring the Association into disrepute.
- A Member shall not act, or conduct itself in a manner which is, in the opinion of the Executive Committee, prejudicial to its position as a Consulting Engineering enterprise, or to the interests of the Association or its Members.
- A Member shall not knowingly act in a manner derogatory to the honour, integrity or dignity of the Association or any of its Members.

2.16 Advertising of Services

- Discreet advertising is permitted. Such publications and expressions of opinion shall be moderate and discreet in tone and content, factual and capable of verification or if not so capable of verification then clearly made as expressions of opinion.
- A Member shall not unfairly criticise either explicitly or by implication the work of another member.
- Statements shall not in any way bring discredit to the Association or to the profession.
- Signboards or plates may be placed on Members' premises or on work sites.
- Commemorative tablets or inscriptions bearing Members' names may be placed on completed works.

2.17 ACEI Ethics Committee

- Members shall co-operate fully with the ACEI Ethics Committee in any inquiry with regard to a complaint brought against a member under this Code of Conduct.
- Members shall abide by the decisions of the ACEI Executive Committee.

3. COMPLAINTS AGAINST A MEMBER COMPANY OR AN ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

The Association is seriously concerned at all times with any breaches of the Constitution or Code of Conduct of the Association and views with particular concern any action by a member or an ACEI Registered Fellow Consulting Professional Engineer which may directly or indirectly injure the professional interest of another member or the Association.

Allegations regarding breaches of the Code of Conduct shall be considered by the Association's Ethics Committee which is one of the Advisory Committees established by the Executive Committee. The ACEI Code of Conduct is mainly concerned with the ethical standards and the propriety of actions taken by members. The ACEI Executive Committee shall undertake to assist where possible in the resolution of a complaint made by a client(s) against a member or a complaint made by a member against another member.

In relation to a complaint against an ACEI Fellow Professional Consulting Engineer (FConsEI), if in the judgment of the Executive Committee it is appropriate to do so the matter shall be referred to the Ethics & Disciplinary Committee of the respective Chartered Institution of the person concerned.

CONDITIONS OF ENGAGEMENT

Dam on Lesotho Highlands Water Project during construction ©Egis

ACEI and Engineers Ireland issued revised Conditions of Engagement in 2020:

- Agreement SE 9101 for the appointment of a consulting engineer for structural engineering work, and
- Agreement ME 2000 for the appointment of a consulting engineer for building services engineering work where the engineer is not the lead consultant.

With the exception of the individual services to be delivered by the consulting engineer, SE 9101 and ME 2000 are very similar.

The main changes to the documents relate to the following issues:

- The major changes to Building Control Legislation following the introduction of BC(A)R, S.I. 9 of 2014,
- The revisions to Health & Safety Legislation in relation to domestic clients, with the Safety, Health and Welfare at Work (Construction) Regulations 2013, S.I. 291 of 2013,
- The setting out of the normal allocation of design team responsibilities in relation to drainage,
- The elimination of the Memorandum of Agreement,
- The definition of the information to be provided by the client to the consulting engineer where BIM and /or digital deliverables are specified for a project.

There are also a number of other changes to individual clauses throughout the documents, particularly in relation to additional services.

The revised documents carry forward previous critical clauses in relation to liability:

- Limit on Liability
- Net Contribution Clause
- Consequential Loss
- Collateral Warranties

For the benefit of both clients and consultants, the Association strongly recommends the use of these new Conditions of Engagement Agreements for the appointment of consulting engineers.

ACEI considers that the revised documents now reflect the up-to-date legislative situation in the industry, and that they will be very beneficial in the provision of a comprehensive and professional service to clients.

Note: Hard copies of the new Conditions of Engagement documents are available from both the ACEI and Engineers Ireland offices.

ACEI ASSOCIATION OF CONSULTING ENGINEERS OF IRELAND

DIRECTORY OF MEMBERS

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GLOSSARY

Explanation of Engineering Disciplines

Civil Engineering
Arterial Drainage
Bridge and Dam Construction
Land Reclamation
Road and Highways
Sewage Treatment and Disposal
Site Investigation and Developments
Water Treatment Storage and Supply
Industrial Effluent and Pollution Control
Irrigation Systems
Environment Studies

Structural Engineering
Foundations
Building and Structural Frames

Mechanical Engineering
Steam Boiler Plants and Distribution Systems
Calorifies Plants
Water Treatment & Filtration
Dust Extraction & Collection
Fire Protection & Prevention
Compressed Air & Vacuum Systems
Pneumatic Conveyors
Hospital Services
Laboratory Services
Fuel Oil Storage & Distribution
Gas Fuel Supply & Distribution
Piping Systems
Cooking & Catering Equipment
Laundry Equipment
Sterilising Equipment & Systems
Conveyor Systems & Mechanical Handling Plant
Refuse Collection & Disposal Systems
Vibration Control
Sound Insulation & Control
Acoustical Design & Treatment
Piped Waste and Soil Systems
Industrial Effluent and Flue Gas Treatment

Marine Engineering
Sea and River Dredging
Sea Walls and Erosion Protection
Jetties, Wharves and Harbours
Marine Structures

Traffic Engineering
Traffic Studies
Transport Systems

Electrical Engineering
Electrical Generating Plant
Main & Emergency Supply Systems
H.T. & L.T. Distribution and Sub-Stations
Internal Distribution Systems
Illumination Engineering
Power Systems & Supply
Instrumentation
Street & Area Lighting
Hoists, Escalators & Lifts
Communication Systems
Fire Detection and Alarm Systems
Time Recording and Display Systems
Public Address, Personnel - Location and Call Systems
Radio and Television Installation
Central Distation Systems
Lighting Protection Systems

Heating, Ventilating and Air-Conditioning
Heat Generators
Heating Installations
Hot and Cold Water Storage and Distribution
Refrigeration & Cold Storage
Air-Conditioning Installations
Ventilation Systems
Thermal Insulation

Explanation of Abbreviations

A	Associate
AM	Associate Member
AIEE	American Institute of Electrical & Electronic Engineers
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigeration & Air-Conditioning Engineers
BA	Bachelor of Arts
BAI	Bachelor in Arte Ingeniaria (Engineering)
BE	Bachelor of Engineering
BSc	Bachelor of Science
CEng	Chartered Engineer
CIArb	Institute of Arbitrators
CIBSE	Chartered Institution of Building Services Engineers
DCT	Diploma in Concrete Technology
DEM	Diploma in Engineering Management
DIC	Diploma of the Imperial College of Science & Technology
DipEng	Diploma in Engineering
DLA	Diploma in Liberal Arts
DPA	Diploma of Public Administration
Eur Ing	European Engineer
F	Fellow
FB	Faculty of Building
FConsEI	ACEI Fellow Professional Consulting Engineer
Grad	Graduate
ICE	Institution of Civil Engineers
IEE	Institution of Electrical Engineers
IEI	Institution of Engineers of Ireland
IF	Institute of Fuel
IHT	Institution of Highway and Transportation
IHVE	Institution of Heating & Ventilation Engineers
IIMH	Irish Institute of Materials Handling
IMarE	Institution of Marine Engineers
IMechE	Institute of Mechanical Engineers
IMunE	Institution of Municipal Engineers
Ing.EurEta	EurEta Registered Engineer (European Higher Engineering and Technical Professionals Association)
InstME	Institution of Maintenance Engineering
InstP	Institute of Petroleum
INSTWPC	Institute of Water Pollution Control
IPHE	Institution of Public Health Engineers
IStructE	Institution of Structural Engineers
IWEM	Institution of Water and Environment Management
IHEEM	Institute of Healthcare Engineering and Estate Management
InstE	Institute of Energy
InstPet	Institute of Petroleum
InstTE	Institute of Transport Engineering
InstWPC	Institute of Water & Pollution Control
IOR	Institute of Refrigeration
IOSH	Institute of Safety and Health
IPHE	Institution of Public Health Engineers
IPI	Irish Planning Institute
IProjMng	Institute of Project Management
M	Member
MA	Master of Arts
MAI	Master in Artia Ingeniaria (Engineering - TCD)
MASc	Master of Applied Science
MBA	Master of Business Administration
MEM	Master of Engineering Management
MEng	Master of Engineering
MConsEI	Member of Association of Consulting Engineers of Ireland (ACEI)
MConsE	Member of Association of Consulting Engineers (UK)
MCGI	Member of the City and Guilds of London Institute
ME	Master of Engineering
MEngSc	Master of Engineering Science
MIE	Master of Industrial Engineering
MSc	Master of Science
PhD	Research Degree – Doctor of Philosophy
Pind	Diploma in Industrial Engineering (Madrid University)
PE	Professional Engineer (Licence to practice in a State of the USA) Professional Engineer (Licence to practice in a province of Canada)
RConsEI	ACEI Registered Professional Consulting Engineer
RIAI	Royal Institute of the Architects of Ireland
RSH	Royal Society for the Promotion of Health
RTPI	Royal Town Planning Institute
SFPE	Society of Fire Protection Engineers (US)
SLL	Society of Light and Lighting
SM	Student Member
VDI	German Association of Engineers

2HQ CONSULTING ENGINEERS LTD

6 Burnell Court, Northern Cross, Malahide Road,
Dublin 17. D17 RX47

T: +353 (0)1 968 5070

E: info@2hq.ie

W: www.2hq.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Stephen McQuade,** BEng (Hons), CEng, MIEI, MIStructE, FConsEI

TOTAL EMPLOYEES

8

ABOUT THE FIRM

2HQ is an engineering consultancy firm offering the full spectrum of civil and structural engineering services to the construction and property sectors and also bespoke expert engineering services to the insurance and legal sectors. Our vision is to provide a single point of service for fully coordinated engineering design and project management that constantly exceeds the expectations of project stakeholders.

ENGINEERING ACTIVITIES

Civil, Structural, Traffic, Transportation, Project Management, Health and Safety, Building Investigations and Remediation.

PROJECT TYPES

Residential, Commercial, Industrial, Conservation and Refurbishment, Education, Temporary Works, Roads, Planning Applications, Design & Build, Office, Public Sector, Leisure, Building Surveys, Expert Engineering.

A1 ENG

11 Park Lane, Chapelizod, Dublin 20. D20 HX96

T: +353 (0)1 443 4105/+353 (0)87 779 2823

E: a1engconsult@gmail.com

OFFICES

Annsfort House, Lisnaclea, Shantonagh, Co. Monaghan
T: +353 (0)87 779 2823

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **EUR ING Senior Ing.EurEta Kevin P. Tracey,** CEng, DipEng, DEM, MCGI, FIEI, FCIBSE, FSLL, FInstME, FConsEI

TOTAL EMPLOYEES

1

ABOUT THE FIRM

Formerly Engineering Design and Management (EDM). The firm was established in 1997 and has gained a reputation for high quality design and service in the building services industry both nationally and internationally. International experience has been gained in England, Holland, Italy, Libya, Egypt, Nigeria, Sudan, the Kingdom of Saudi Arabia, Japan and the United States of America. It is the mission of the firm to deliver technically innovative, sustainable and cost effective engineering solutions to clients on time and to the highest level of national and international standards of excellence, quality and safety.

The firm is affiliated to a number of professional engineering bodies including Engineers Ireland, Association of Consulting Engineers of Ireland, Chartered Institution of Building Services Engineers, Society of Light and Lighting, European Federation of National Engineering Associations and European Association of Practice-oriented Professionals with Higher Education.

ENGINEERING ACTIVITIES

Sustainable Building Services Engineering, Mechanical Engineering, Electrical Engineering, Health and Safety, Fire Safety, Data Communications and Infrastructure, Vertical Transportation, Specialist Lighting, Low Energy and Sustainable Solutions, Energy Audits, Building Refurbishments, Maintenance Engineering, Building Services Insurance Claims, Accident Investigations, Forensic Engineering, Project Management, Project Monitoring and Cost Management.

PROJECT TYPES

Office Developments, Health Care Facilities, Pharmaceutical Plants, Clean Rooms, Data Centres, Industrial/Production Facilities, Warehouses, Educational Buildings, Embassies, Agricultural, Social Housing, Community Centres, Religious Buildings, Hotels/Apartments/ Housing, Private Dwellings, Sports and Leisure, Shopping Centres, Airport Facilities, Information and Communications Technology Projects, Lighting Projects, Refurbishment Projects, Historic Buildings, Temporary Installation Projects, Accident Investigations and Forensic Engineering.

AECOM

AECOM Ireland Limited, 4th Floor, One Burlington Plaza, Burlington Road, Dublin 4. D04 RH96

T: +353 (0)1 696 6220

E: acei@aecom.com

W: aecom.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Eoin Greene,** BA BAI Civil, Structural, and Environmental Engineering (1st Class Honours) & Chartered Engineer

TOTAL EMPLOYEES

300

ABOUT THE FIRM

AECOM in Ireland is a leading provider of integrated design consultancy services to a wide range of public and private sector clients. We have been involved in developing some of the biggest hospitals, prestigious commercial and residential developments, busiest roads and most complex contaminated land schemes across Ireland. We also pride ourselves on providing specialist services to niche and unique schemes to improve local communities. Staff in our five offices across Ireland are supported by more than 50,000 colleagues around the world. This means our clients have access to the range of skills and expertise of a global company, with the knowledge and responsiveness of a local business. From feasibility studies and detailed designs, through to site supervision and commissioning, AECOM can assist with any element to secure a valuable and effective outcome. We also offer professional advice on training, technical studies, value engineering and value management services.

AECOM launched when a handful of employees from design and engineering companies shared a dream of creating an industry-leading firm dedicated to making the world a better place. AECOM became an independent company formed by the merger of five entities with our predecessor firms having distinguished histories dating back more than 120 years. AECOM is the world's premier infrastructure firm with an unrivaled heritage delivering design, planning, engineering, consulting and construction management solutions.

ENGINEERING ACTIVITIES

Project & Program Management, Cost Management & Quantity Surveying, Energy, Sustainability Services, Mechanical and Electrical Engineering, Architecture, Health & Safety, Building Surveying, Civil and Structural Engineering, Development Planning, Transportation, Water, Environmental Engineering, Ground Remediation, Façade Engineering, Lighting, Transport Planning and Advisory, Roads, Active Travel and Greenways, Pavements, Asset Manager, Environmental Assessment, Economics, Air & Noise, Ecological Assessment, Cultural Heritage, and Landscape Architecture.

PROJECT TYPES

Active Travel, Airports, Bridges, Business Case and Economic Appraisals, Bus Interchanges & public transport infrastructure, Commercial Property, Commercial Fit-outs, Data Centres, Entertainment Venues, Greenways, Factories and Storage Facilities, Hotels, Highways & Roads, Hospitals, Maritime & Ports, Museums, Prisons, Public Realm, Courts, Manufacturing/ Pharma/I.T., Energy, Leisure Centres, Arenas and Stadia, Social Infrastructure, Science, Industry & Technology, Healthcare, Residential, Shopping Centres, Flagship Stores and Retail Parks, Rail and Light Rail, Road Safety, Traffic Systems & Junction Upgrades, Universities, Colleges and Schools, Laboratories and Research Facilities, Water.

AGL CONSULTING

Suite 2, The Avenue, Beacon Court, Sandyford, Dublin 18. D18 E0K5

T: +353 (0)1 295 6532

W: www.agl.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Conor O'Donnell,** BA, BAI, MNS, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

6

ABOUT THE FIRM

AGL Consulting is one of the leading geotechnical engineering consulting firms in Ireland. We are an independent Irish-owned company based in Dublin. The company was set up in January 2001 by Dr. Eric Farrell and Conor O'Donnell to provide expert consulting and design services in the fields of geotechnical engineering, engineering geology and hydrogeology.

Since its inception, AGL has worked on a diverse range of projects including tunnels, waterfront structures, motorways, flood control schemes, pipelines, water treatment systems, power stations, windfarms and large scale commercial and residential developments. We have worked on many of the technically challenging landmark civil projects in Ireland including the Dublin Port Tunnel, Limerick Tunnel PPP Scheme, Corrib Onshore Gas Pipeline and Dublin Port Alexandra Quay Development.

We have been involved in the earthworks design for over 150 km of motorways around Ireland, and the geotechnical design of a large number of windfarm projects, many of which had challenging geotechnical conditions on unstable upland blanket peat bogs or reclaimed tidal mudflats. We have provided expert geotechnical design services for large commercial developments with deep basements in congested urban settings such as the Dublin Central Shopping Centre and the Dundrum Town Centre.

Through our work we have gained extensive and invaluable experience in design and construction in a variety of ground conditions throughout Ireland, the UK and abroad. Our clients include many of the leading large civil contractors in the country, as well as a number of engineering consulting firms, local authorities, and property developers.

It is our mission to the deliver technically innovative and cost-effective geotechnical designs to our clients on-time and to the highest international standards of excellence, quality and safety.

ENGINEERING ACTIVITIES

Foundation Design – Piling and Spread Footings, Earth Retaining Structures and Excavation Support Systems, Tunnelling, Micro-Tunnelling and Pipe-Jacking, Earthworks Design for Civil Works, Slope Stability Analysis in Soil and Rock, Ground Anchors and Anti-Flotation Tension Piles, Ground Improvement Techniques, Geotechnical Instrumentation, Desk Studies and Walkover Surveys, Environmental Impact Statements (Soils & Geology), Ground Investigations, Geotechnical Interpretive and Design Reports.

PROJECT TYPES

Geotechnical Risk Management, 2D and 3D Finite Element Analysis, Groundwater Modelling, Construction Over Soft Ground, Temporary Works Designs, Expert Witness for Arbitration and Conciliation.

ARUP

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E: dublin@arup.com

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T: +353 (0)21 422 3200

Hartstonge House, Upper Hartstonge Street, Limerick. V94 F8XE
T: +353 (0)061 212 100

Corporate House, City East Business Park, Ballybrit, Galway. H91 K5YD
T: +353 (0)91 894 700

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Clodagh O'Donovan,** BE, MEngSc, CEng, FIEI, MCIWEM, CWCM, FConsEI
- **Liam Luddy,** BE, CEng, MIEI, DipLaw, FConsEI
- **Joe Burns,** BE CEng MIEI MIStructE, FConsEI

TOTAL EMPLOYEES

800

ABOUT THE FIRM

Arup is the creative force at the heart of many of the world's most prominent projects in the built environment and across industry. With 89 offices across 33 countries, Arup has 15,000 designers, engineers, consultants, project managers and technical specialists delivering innovative projects around the world with creativity and passion. We offer a broad range of professional services that combine to make a real difference to our clients and the communities in which we work. We have been delivering landmark projects since our foundation in Ireland in 1946. Arup is one of the largest consulting engineering practices in Ireland, providing multidisciplinary engineering and advisory services from our offices in Dublin, Cork, Belfast, Galway and Limerick. We have built a reputation for unrivalled quality, local expertise and knowledge. With an enduring set of values and sense of purpose, our unique trust ownership fosters a distinctive culture that encourages collaborative working. This allows us to develop meaningful ideas, help shape agendas and deliver results that frequently surpass the expectations of our clients. The people at Arup are driven to find a better way and to deliver better solutions. Sustainable development is central to all our work. Through our diverse and expanding range of disciplines, we strive to shape a better world by designing safe, inclusive and resilient communities, infrastructure and cities.

ENGINEERING ACTIVITIES

Advisory Services, Asset & Facilities Management, BIM, Business Investor Advisory, CFD, Civil, Controls, Cost Consulting, Digital Property, Electrical, Energy, Environmental, Façade, Fire and Public Health Engineering, Ground Engineering, Health & Safety and Risk Management, Information and Communications Technology, Intelligent Mobility, Lighting, Masterplanning & Urban Design, Mechanical, Planning, Project & Programme Management, Road Pricing, Site infrastructure design, Site location and assessment, Structural, Sustainability, Transport Planning, Wellness consulting

PROJECT TYPES

Aviation, Highways, Bridges/Civil Structures, Rail, Water, Flood Risk Management, Maritime, Energy, Social Infrastructure, Commercial Property, Science, Industry & Technology, Healthcare, Residential, Mixed Use and Education.

ATKINSRÉALIS

AtkinsRéalis House, 150 Airside Business Park, Swords, Co. Dublin. K67 K5W4

T: +353 (0)1 810 8000

E: info.ie@atkinsrealis.com

W: www.atkinsrealis.ie

OFFICES

Cork - Unit 2B, 2200 Cork Airport Business Park, Cork. T12 R279
T: +353 (0)21 429 0300

Galway - 1st Floor, Technology House, Parkmore Technology Park, Galway. H91 NXY4
T: +353 (0)91 786 050

Dundalk - Block 5, 3rd Floor, Quayside Business Park, Mill Street, Dundalk, Co. Louth. A91 C6CR
T: +353 (0)1 810 8000

FConsEI- ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Martina Finn,** BEng CEng MIEI, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEER

- **Cormac Woods,** BSc(Eng), DipStructEng, PGradDip(H&S in Construction),CEng, MIEI, FIStructE. Grad IOSH, RConsEI

TOTAL EMPLOYEES

400 ROI
250 NI

ABOUT THE FIRM

AtkinsRéalis is a world-leading professional services and project management company dedicated to engineering a better future for our planet and its people. We create sustainable solutions that connect people, data and technology to transform the world's infrastructure and energy systems. AtkinsRéalis employs 38,000 staff worldwide, and more than 400 people in Ireland, with offices in Dublin, Cork, Galway, and Dundalk. AtkinsRéalis also has an office employing 250 people in Belfast. We became AtkinsRéalis following a global rebrand in September 2023, which unified our SNC-Lavalin, Atkins, and Faithful + Gould businesses under a single global brand.

ENGINEERING ACTIVITIES

Civil Engineering, Structural Engineering, Mechanical Engineering, Electrical Engineering, Fire Safety Engineering, Geotechnical Engineering, Water Engineering, Health and Safety/PSDP, Environmental Sciences, Ecology, Digital Services, Sustainable Design, Architecture, Transport Planning, Building Surveying, Quantity Surveying, Project & Programme Management.

PROJECT TYPES

Transportation, Rail, Roads, Bridges, Active Travel, Infrastructure, Aviation, Ports, Energy, Buildings, Housing, Healthcare, Life Sciences, Education, Data Centres, Water, Environmental.

AXISENG M&E LTD

47 Mount Street Upper, Dublin 2. D02 AC95

T: +353 (0)1 491 0044

E: info@axiseng.ie

W: www.axiseng.ie

FConsEI- ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Cian Dowling,** BSc (Hons) Eng, Dip Eng, CEng, MIEI ,FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEERS

- **Rachel McKenna,** BEng, CEng, MCIBSE, DipProjMgt, LEED AP, RConsEI
- **Bryan Dolan,** CEng, BEng(Hons), MIEI, RConsEI

TOTAL EMPLOYEES

50

ABOUT THE FIRM

Axiseng is a well-resourced, independent building services consultancy practice formed in 2004. We have established a reputation for consistently delivering a high quality service across a broad range of projects including large commercial developments, institutional refurbishments and complex industrial installations. Our directors are well known in the construction industry for their integrity, expertise and project commitment, and are recognised leaders in the fields of sustainable design, complex air conditioning installations and master planning major developments. The size of our practice allows the directors to maintain a strong personal presence throughout the full duration of every project.

ENGINEERING ACTIVITIES

Mechanical and Electrical Building Services, Sustainable/ Energy Engineers, Energy Modelling, Daylight/Sunlight Analysis, Net Zero Carbon Solutions, Heating / Ventilating and Air-Conditioning, Medical Gas Design, Project Management, Fire & Security Engineering, ICT & Communication Systems, Vertical Transportation Engineering, MEP Cost Control, 3D Building Information Modelling (BIM), BCAR Inspection / Reporting, Public Lighting, Value Engineering.

PROJECT TYPES

Commercial, Retail, Pharmaceutical, Education, Hotel, Sports and Leisure, Energy Audits, Health Care, Religious, Residential, Prisons, Industrial, Exhibition Spaces, Sports Stadia Facilities, Protected Structures / Historical Buildings, Hospitals, Mixed-use Developments, Shopping Centres, Master planning, Nursing Homes, Institutional, Heritage.

BARRETT MAHONY CONSULTING ENGINEERS

Sandwith House, 52/54 Lower Sandwith Street, Dublin 2. D02 WR26

T: +353 (0)1 677 3200

E: bmce@bmce.ie

W: www.bmce.ie

OFFICES

5th Floor, Mill House, 8 Mill Street, London, SE1 2BA
T: +44 (0)203 750 3530

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Ciarán Kennedy,** BSc(Eng), DipStructEng, CEng, MIEI, MIStructrE, FConsEI
- **Brian Mahony,** BE, DipCompEng, CEng, MIEI, MIStructE, FConsEI
- **John Considine,** BE, CEng, MIEI, MIStructE, FConsEI
- **Stephen O'Connor,** BSc(Eng), DipStructEng, CEng, FConsEI
- **Vincent Barrett,** BSc(Eng), DipStructEng, MSc, DIC, CEng, MIEI, MIStructE, FConsEI
- **Michael Hughes,** BEng, CEng, MIEI, MIStructE, MICE, Eur Ing, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEER

- **Liam Heffernan,** BSc(Eng), DipStructEng, MSc(Eng), CEng, MIEI, MIStructE, MIBCI, RConsEI

TOTAL EMPLOYEES

100

ABOUT THE FIRM

Barrett Mahony Consulting Engineers (BMCE) is a civil and structural engineering consultancy established in Dublin in 1994. BMCE is a progressive practice specialising in all aspects of civil and structural engineering, with offices in Dublin and London. The directors and staff have extensive experience in both public and private sectors across a broad range of projects including residential, commercial, industrial and institutional developments, with a particular specialist expertise in the refurbishment of heritage buildings. The BMCE practice ethos is to foster a positive problem solving approach amongst staff whilst always maintaining a quality-assured service with primary emphasis on technical excellence and cost-effective design. BMCE recognise the need to continuously invest in its staff and technology in order to provide competitive and up-to-date services to its clients. The company has comprehensive policies developed and in place in relation to quality assurance, health and safety and continuing professional development. The firm is focused on providing a quality assured service to its clients whilst ensuring that it complies with its responsibilities under health and safety legislation both as designers and as employers. As employers, it is also keen to promote career satisfaction and progression for the benefit of individual and organisational success. BMCE has received numerous awards and accolades for projects where they have provided noteworthy designs.

ENGINEERING ACTIVITIES

Structural, Civil, Project Management.

PROJECT TYPES

Construction Commercial, Retail & Office, Residential, Mixed Development, Education, Master Planning, Industrial Developments, Bridges, Healthcare, Institutional, Restoration & Protected Structures, Church Refurbishment, Government Departments, Multistorey Car Parks.

BCE, BELTON CONSULTING ENGINEERS LTD

Unit B17, Ballymount Corporate Park, Ballymount Avenue, Dublin 12. D12 NN97

T: +353 (0)1 429 5774

E: info@bcge.ie

W: www.bcge.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Shane Belton,** BScEng CEng, FConsEI

TOTAL EMPLOYEES

8

ABOUT THE FIRM

Belton Consulting Engineers is a Dublin-based consulting engineers company, offering expertise in mechanical, electrical, and public health engineering. Sustainability and energy conservation is at the core of what we do. Our ideology is centred on three core pillars:

To optimise client investment through simple yet innovative design with a goal to maximise client return.

To deliver better design through our unique structured process system, utilising systemisation to deliver consistency and quality in all our projects.

To be 'easy to get along with'. We pride ourselves on our staff's ability to problem solve, be proactive and flexible and effective communicators.

How we Deliver Quality Design – E3D Process
Extract – Our engineers are trained to ask better questions – we don't make assumptions, there is no guessing. Our mantra is give them what they want not what we think they want. How do we deliver this? Through clarifying the design goals and working in collaboration with the design partners.
Define / Design – Our objective is to mitigate risk of budget creep, lockdown scope, and correlate technology to maximise efficiency and keep it simple.
Deliver – Our aim is to deliver quality and consistency through benchmark processes. To engage in proactive problem solving. To be flexible yet creative and always adhere to the age-old adage 'the value is in the finishing'.

Belton Consulting Engineers' strengths lie in our communication and collaboration skills making us strong team players in any design team.

ENGINEERING ACTIVITIES

Building Services, Medical Gas Design, 3D Building Information Modelling (BIM), Energy Engineering, Heating / Ventilating and Air-Conditioning, Sustainable Engineering Design, Project Management, Fire & Security Engineering, Services Cost Control, BCAR Inspection/Reporting, Vertical Transportation Engineering, ICT & Communication Systems.

PROJECT TYPES

Offices / Commercial / Light Industrial, Heavy Industrial Decarbonisation, Retail, Laboratories,Third Level Sector, Clean Rooms, Retail, Hospitals / Healthcare Buildings, Residential, Heritage, Leisure Facilities, Public Buildings, Schools, Hospitals, Refurbishment, Bridges, Roads, Ports and Harbours, Surveys, Hotel & Leisure, Courtroom Facilities.

BDP

Old Stone Building, Blackhall Green, Dublin 7. D07 V0RF

T: +353 (0)1 474 0600

E: dublin@bdp.com

W: www.bdp.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Patrick Kavanagh,** BE, CEng, MIEI, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEER

- **Brian West,** MSc, CEng, MIEI, FCIBSE, FIHEEM, RConsEI

TOTAL EMPLOYEES

1,350

ABOUT THE FIRM

BDP is a multi-professional practice providing a high quality, integrated design service for the built environment. We have offices in Ireland, Britain, Netherlands, Canada, India, China and the Middle East. We have been working successfully in Ireland for over 50 years offering a wide spectrum of professions and skills. Our integrated service is supported by the latest technology and computer-aided design and we are able to network skills and experience around the practice to the benefit of our projects. We also operate an 'all through' Quality Management System, which meets the requirements of ISO 9001 and an Environmental Management System which meets the requirements of ISO 14001.

We are passionate about designing sustainable, low energy buildings and for over 30 years our Dublin team has worked closely with our clients to deliver design solutions that minimise carbon emissions.

ENGINEERING ACTIVITIES

Mechanical and Electrical, Structural, Civil, Specialist Lighting, Acoustics, Heating, Ventilation and Air Conditioning, Dynamic Simulation Modelling, Low Energy / Low Carbon / Sustainable Design, BER Certification, BREEAM Assessors, LEED, WELL, WIRED, Life Cycle Assessments.

PROJECT TYPES

Education, Hospitals / Healthcare, Offices Developments / Fit Outs, Hotels, Residential, Mixed-use Developments, Commercial, Industrial, Shopping Centres, Leisure / Sports Centres, Historic Refurbishment, Master planning.

BJS CONSULTANTS

1 Marble Hill, Boreenmanna Road, Cork. T12 RY8R

T: +353 (0)21 431 5610

E: info@bjsconsultants.com

W: www.bjsconsultants.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Brendan Sheehan,** CEng, MIStructE, FConsEI

TOTAL EMPLOYEES

9

ABOUT THE FIRM

BJS Consultants was formed in 1998 by Brendan Sheehan, Chartered Structural Engineer with over 30 years' experience working with major consultancies in Ireland and overseas. The firm has completed a wide variety of projects and has the resources to provide a complete package for our clients. We offer a high quality, cost effective civil, structural and environmental engineering service with the emphasis placed on a personal service to the client. This ensures that our clients deal directly with the same team who are responsible for their project from start to finish. We also have ISO 9001 and ISO 14001certification.

ENGINEERING ACTIVITIES

Civil, Structural & Environmental, Engineering, Temporary Works Design, Project Management, Site Supervision, Surveys & Monitoring.

PROJECT TYPES

R&D and Industrial Facilities, Schools, Healthcare Facilities, Sports/Leisure Facilities, Refurbishments of Old and Historical Building, Property Surveys, Vibration and Noise, Monitoring, Temporary Work Design.

BRACKFIELD CONSULTING LTD

Unit K21, Drinan Enterprise Centre, Feltrim Road, Swords, Co. Dublin. K67 PD63

T: +353 (0)1 892 8087

E: info@brackfieldconsulting.com

W: www.brackfieldconsulting.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Kevin Brackfield,** BEng (Hons), CEng, MIStructE, MIEI, FConsEI

TOTAL EMPLOYEES

3

ABOUT THE FIRM

Founded in 2009 by industry expert Kevin Brackfield, Brackfield Consulting Ltd. is a premier engineering consultancy offering comprehensive engineering and architectural services. With over 30 years of experience and a track record as a Director of Off-Site Construction Design Ltd and B&E Consultants, Kevin has built a firm rooted in excellence and sustainability. At Brackfield Consulting, our commitment is to shape a better future through responsible engineering and architectural excellence. Brackfield Consulting prioritizes green design and ethical practices, delivering tailored solutions that balance innovation, quality, and environmental responsibility.

ENGINEERING ACTIVITIES

Civil & Structural, Temporary Works, Architectural, Report and Advisory, Conservation, Project Management.

PROJECT TYPES

Structural/Architectural, Temporary Works Design, Restoration of Historic Buildings, Residential, Industrial, Educational, Commercial, Pyrite, Reporting and expert witness services.

BUNNI & ASSOCIATES LTD

42 Thormanby Road, Howth, Co. Dublin. D13 Y270

T: +353 (0)1 839 1141

E: bunni@eircom.net

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Nael G. Bunni,** BSc, MSc, PhD, CEng, FIEI, FICE, FIStructE, FCIArb., FIAE, FConsEI

TOTAL EMPLOYEES

2

ABOUT THE FIRM

In 1994 Dr Bunni established the firm of Bunni & Associates Ltd. and has continued to practice his engineering activities. Until March 1994, Dr Bunni was a Senior Director of T.J. O'Connor & Assoc., Consulting Engineers, Dublin, which was established in 1937. He joined the above firm in 1969.

ENGINEERING ACTIVITIES

Civil & Structural, Forensic Engineering, Dispute Resolution, Construction Insurance.

PROJECT TYPES

Expert Adviser in Dispute Resolution, Arbitrator in International Dispute, Conciliator, Arbitrator in Domestic Dispute, Dispute Board Member.

CARRAIG CONSULTANTS

11 Avondale Road, Killiney, Co. Dublin. A96 HK50

T: +353 (0)1 285 2222 / +353 (0)86 241 0184

E: ciaran.macintyre@carraigconsultants.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Ciarán MacIntyre,** BAI, CEng, MIEI, MIStructE, MCIArb, FConsEI

TOTAL EMPLOYEES

1

ABOUT THE FIRM

Carraig Consultants was established in 2009 by Ciarán MacIntyre as an independent niche consultancy with a particular focus on structural design, project management and report and advisory work. Ciarán is an ACEI Registered Chartered Engineer with more than 40 years' engineering consultancy experience in the built environment. He is committed to taking personal charge from inception to completion of all work undertaken by Carraig. Ciarán was a Director of P.H McCarthy & Partners from 1997 to 2007. In October 2007 PH McCarthy & Partners was acquired by WYG Ireland and Ciarán became a Director of WYG Engineering. He continued to work with WYG until October 2009 when he set up Carraig Consultants.

ENGINEERING ACTIVITIES

Structural, Civil, Conservation, Project Management, Report & Advisory, Value Engineering, Dispute Resolution.

PROJECT TYPES

Residential, Commercial, Industrial, Health, Educational, Restoration & Conservation.

CHH CONSULTING ENGINEERS

Innisfree House, 44-45 High Street, Sligo. F91 WC79

T: +353 (0)71 916 1844

E: info@chh.ie

W: www.chh.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Paul Henry,** BScEng (Hons), Dip Eng, Eur Ing, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

10

ABOUT THE FIRM

Established in 1981 as Concannon Healy Heffernan and recently re-branded to CHH Consulting Engineers. Predominantly based in the north-west but expanding to cover a large area of Ireland.

ENGINEERING ACTIVITIES

Civil & Structural.

PROJECT TYPES

Site Developments, Water Supply & Drainage, Residential Developments, Retail & Office Developments, Civic & Public Buildings, Building Restoration Projects, Hotel & Tourism Developments, Hospital & Healthcare Projects, Sports Hall & Leisure Projects, Third Level Colleges, School & Education Facilities, Banking & Institutional Projects, Energy & Wind farm Projects.

CIVIC

36 Lad Lane, Baggot Street Lower, Dublin 2. D02 T208

T: +44 (0)7770 472 147

E: isla@civicengineers.ie

W: www.team-civic.com

OFFICES

35 Virginia Street, Merchant City, Glasgow. G1 1TN

Carver's Warehouse, 77 Dale Street, Manchester. M1 2HG

1 Saw Mill Street, Water Lane, Leeds. LS11 5WE

Reeds Wharf, 33 Mill Street, London. SE1 2AX

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Isla Jackson, Director,** BEng (Hons), MBA, CEng, MIStructE, Eur Ing, MIEI, FConsEI, SER-C, AAPM, NEBOSH

TOTAL EMPLOYEES

8 based in Ireland (Wider Civic Team = 170)

ABOUT THE FIRM

Civic is a team of system thinkers in the built environment.

At the forefront of engineering design, we create inspirational structures and places that have a positive impact on the environment and enable people to lead healthier and happier lives in the Republic of Ireland.

We are focussed on the planning, design and delivery of major public realm projects, urban infrastructure and building structures to the Nation State.

Civic has over 170 members of the team across studios in Manchester, London, Leeds, Glasgow and Dublin. Its largest business, Civic Engineers, has been operating since 2013. Civic Earth and Civic (Ireland) were founded in 2023. Archaeology and heritage consultancy Civic Heritage was launched in September 2024, place experts New Practice were acquired in October 2024 and Watt Energy & Consulting was acquired in November 2024.

Civic. Thriving Together.

ENGINEERING ACTIVITIES

Civil, Structural, Transport and Active Travel Engineering.

PROJECT TYPES

Residential, Bridges, Education, Retail, Healthcare & Life Sciences, Commercial, Heritage, Landscape & Urban Infrastructure, Active Travel, Sports & Leisure, Arts & Culture, Institutional Building, Industrial, Hotels, Hospitality, Transport Buildings, Policy and Guidance.

CLIFTON SCANNELL EMERSON ASSOCIATES

3rd Floor, The Highline, Bakers Point, Pottery Road, Dun Laoghaire, Co. Dublin, A96 KW29

T: +353 (0)1 288 5006

E: info@csea.ie

W: www.csea.ie

OFFICES

Unit 4D Fingal Bay Business Park, Balbriggan, Co. Dublin

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Geoff Emerson,** BE, MSc(Eng), CEng, MIEI, FConsEI
- **Aidan Smith,** Dip Eng, BSc(Eng), MSc(Eng), CEng, MIEI, A.IOSH, FConsEI
- **Ronan Geoghegan,** BE, Dip Proj Man, CEng, MIEI, FConsEI
- **Pauraic Matthews,** BE, Tech Dip, Tech Cert, CEng, MIEI, FConsEI
- **Caroline Butler,** BE, MEngSc, CEng, FConsEI

TOTAL EMPLOYEES

105

ABOUT THE FIRM

Clifton Scannell Emerson Associates is an independent, Irish owned firm of civil and structural consulting engineers incorporated in 1986 and originally founded in 1952. Our expertise covers a range of civil, structural, transportation and environmental engineering as well as project management. We pride ourselves in delivering engineering and management skills to give optimum value and sustainable solutions to our valued clients. We are ISO 9001:2015 & ISO 45001:2018 certified and are accredited members of Engineers Ireland's CPD programme.

ENGINEERING ACTIVITIES

Civil, Structural, Transportation, Environmental, Project Management, Project Supervisor Design Process (PSDP).

PROJECT TYPES

Roads, Bridges and Transport Schemes including Cycle Network Schemes, Bus Corridors and Green Routes, Public Realm Upgrades and Improvements.

Site Development, Water and Drainage Schemes, Airport Facilities, Bridge Design and Assessment, Building Assessment and Refurbishment.

Data Centre Developments, Industrial and Business Parks, Commercial / Industrial / Office / Civic Buildings, Conservation and Restoration, Prison Facilities, Heritage Centres, Hospitals and Healthcare Projects, Cemetries and Crematoriums, Multi-storey Car Parks and Transport Depots, Residential Developments, Universities / Colleges / Schools.

Large Catchment Studies, Masterplanning, Transportation Studies, Traffic Impact Assessment and Mobility Plans.

CORA CONSULTING ENGINEERS

Behan House, 10 Lower Mount Street, Dubln 2. D02 HT71

T: +353 (0)1 661 1100

E: info@cora.ie

W: www.cora.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **John Pigott**, BE, Cert Eng Tech, CEng, MIEI, FConsEI
- **John Casey**, BE, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

34

ABOUT THE FIRM

CORA Consulting Engineers was founded in 2005 (then Casey O'Rourke Associates) to provide high quality structural and civil engineering design services.

The philosophy at CORA is to work in conjunction with architects and clients to support their aims and aspirations and to use our creative ability and innovative thinking, along with all available technology, to achieve the desired building or structure.

We promote a culture of creativity, innovation and quality in the firm and we are always striving to produce a better, more economical solution with a low embodied carbon.

ENGINEERING ACTIVITIES

Structural & Civil Engineering. Conservation & Renovation of Historic Structures. Temporary Works Design.

PROJECT TYPES

Office Developments, Commercial, Residential, Historic Buildings, Conservation, Protected Structures, Renovation, Mixed Use Developments, Industrial, Process/Pharmaceutical & Low Embodied Carbon Design of structures.

CS CONSULTING GROUP

19-22 Dame Street, Dublin 2. D02 E267
T: +353 (0)1 548 0863
E: info@csconsulting.ie
W: www.csconsulting.ie

OFFICES

45 O'Connell Street, Limerick. V94 XE18
T: +353 (0)61 594 988

45 Beech Street, London, EC2Y 8AD, UK
T: +44 (0)207 0703660

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Pearse Sutton,** CEng, BSc(Eng), DipStructEng, FIEI, MAPEGS, FIStructE, DipEnvEng, Eur Ing, LEED Assoc, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEER

- **Cian Twomey**, BEng (Hons), CEng, MEng, MIEI, RConsEI
- **Luke McNamee**, BSc (Eng), CEng, BSc CIOB, MIEI, MIStructE, RConsEI
- **Niall Barrett**, BEng (Hons), CEng, MIEI, Cert H & S, Cert PSDP, Cert RSA, RConsEI
- **Mark McEntee**, BSc Eng, CEng, MIEI, MIStructE, RConsEI

TOTAL EMPLOYEES

50

ABOUT THE FIRM

CS Consulting Group (Cronin & Sutton Consulting) is a Group of civil and structural engineers based in Dublin, Limerick and London which was founded in 2012. CS Consulting draws on the knowledge and experience of our founders and management team. All have directed significant development projects in several territories, ranging from commercial and retail to residential and mixed-use. Our vision is to deliver the highest level of excellence in engineering. We aspire to this from a solid base. Our track record is one of top-quality design, advice and service across Ireland and the UK. We hold accreditation to ISO 9001, ISO 14001, OHSAS 18001 and ISO 50001, demonstrating the highest commitment to quality, environmental, health and safety and energy management.

ENGINEERING ACTIVITIES

Structural, Civil (and associated structures), Traffic & Transport, Health & Safety, Environmental, Energy Management, Sustainability.

PROJECT TYPES

Residential/Mixed Use, Industrial, Office/ Commercial, Health Care, Housing/Apartments, Roads and Drainage, Environmental Projects, Refurbishment Projects, Public Sector Projects, LEED Accreditation, Traffic & Engineering, Hotel, Retail and Leisure.

C S PRINGLE

Main Street, Castleblaney, Co. Monaghan. A75 YR99
T: +353 (0)42 974 6492
E: info@cspringle.com
W: www.cspringle.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Marcus Dancey,** BSc(Eng), DipEng, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

9

ABOUT THE FIRM

The current practice continues in the tradition of the original firm, established in 1973 by Christopher S Pringle. Consisting of chartered engineers, architects and registered building surveyors most projects are handled fully in-house. The current practice provides a wide-ranging engineering service to our clients, with an emphasis on first-principles design, appreciation of sustainability and of the interrelated disciplines within construction. We act as retained engineers for a number of large manufacturing industries where our engineering versatility and prompt turnaround of work engenders longstanding relationships.

ENGINEERING ACTIVITIES

Civil, Structural, Fire, Assigned Certifier, Project Supervisor Design Process, Sustainable Design.

PROJECT TYPES

Commercial/Retail, Industrial/Warehousing, Mixed Use Developments, Resource/Recreational Centres, Educational Buildings, Healthcare Buildings, Sports Facilities, Hotel and Leisure Facilities, Housing Retrofits, New Housing Developments, Flood Risk Assessments, Conservation Engineering.

CUNDALL LTD

2 Dawson Street, Dublin. D02 VK75

T: +353 (0)1 513 7120

E: dublin@cundall.com

W: www.cundall.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Gerard Doyle,** BEng(Hons), CEng, MIStructE, MIEI, FConsEI
- **Derry Kearney,** BSc(Hons), BEngTech, CEng, MCIBSE, FConsEI

TOTAL EMPLOYEES

42

ABOUT THE FIRM

The firm was founded in 1976 and has become a global, multi-disciplinary consultancy, delivering sustainable engineering and design solutions across the built environment. With offices in Dublin and a further 28 offices and 1,200 employees worldwide, we have brought our knowledge and award-winning engineering expertise to the Irish built environment. Our success across multiple sectors stems from our flexibility, responsiveness, and adaptability to the unique challenges, regulations, and local practices that shape project delivery in each region. With staff across the globe, offering a full range of integrated engineering services, we provide highly focused and dedicated teams on our clients' projects, but still at a size where our core values can be effectively applied. Our leadership team leads every project to provide the right experience and guidance throughout the project's life.

ENGINEERING ACTIVITIES

Acoustic Engineering, Building Information Modelling (BIM), Building Automation, Building Performance Services (BPS), Building Services Engineering, PSDP Consultancy, Civil Engineering, Data Centre Infrastructure Management (DCIM), Fire Engineering, Geotechnical and Geoenvironmental, Health and Wellbeing, IT and Audio Visual, Specialist Lighting (Light 4), Planning, Structural Engineering, Survey Solutions, Sustainable Design, Transportation and Vertical Transportation.

PROJECT TYPES

Aviation, Critical Systems / Data Centres, Education, Government, Healthcare, Industrial, Lifestyle, Masterplanning and Infrastructure, Residential, Retail, Workplace and Mixed-use, Energy and Science and Technology.

DAVID KELLY PARTNERSHIP

Nelson House, Emmet Place, Youghal,
Co. Cork. P36 F864

T: +353 (0)24 92412

E: info@dkp.ie

W: www.dkp.ie

OFFICES

10 Ormonde Street, Kilkenny. R95 R2HY
T: +353 (0)56 780 1260

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Colin Brennan,** BE, CEng, MIEI, FConsEI
- **Dermot O'Shea,** BE, CEng, MIEI, FConsEI
- **John Kelly,** BE, MSc, CEng, MIStructE, MIEI, Conservation Accredited Engineer, FConsEI

TOTAL EMPLOYEES

10

ABOUT THE FIRM

The practice commenced in 1987 and has undertaken a wide range of structural engineering projects, together with civil engineering works such as earth and water retaining structures, storm and sanitary drainage and small bridges. The partnership has a long established practice in historic building conservation, including national monuments and historic buildings and structures. Accredited to ISO 9001:2015.

ENGINEERING ACTIVITIES

Structural, Civil, Statutory Planning, Building Conservation, Fire Safety, Geotechnical.

PROJECT TYPES

Office Buildings, Educational Buildings, Industrial Buildings, Multi-storey Residential Buildings, Retail and Commercial Developments, Infrastructure for Housing Development, Conservation of Historic Buildings and National Monuments, Public Realm Rejuvenation, Quay Wall Repair, Foundation Design in karstified limestone areas.

DAVID REHILL CONSULTING

David Rehill Consulting, Dublin

T: +353 (0)49 389 1101

E: david@drconsulting.ie

W: www.drconsulting.ie

OFFICES

Baggot Street Lower, Dublin

Grilly, Belturbet, Co Cavan. H14 A261

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **David Rehill,** BE, CEng, MBA, Dip Proj Mgt, MIStructE, MIE, FConsEI

TOTAL EMPLOYEES

1

ABOUT THE FIRM

David Rehill Consulting was established in 2022 to provide bespoke engineering advice and solutions to clients in Ireland and the UK. David has over 20 years' experience as project lead on many large multi-million euro residential, commercial, industrial, and mixed-use developments in Ireland, the UK, mainland Europe and the Middle East. He brings a very practical mindset to collaborative workshops and has a wealth of experience in large building projects in a variety of structural forms, such as steel frame, insitu concrete, precast concrete, post-tensioned concrete, modular construction, and historic buildings. David is a Chartered Engineer with Engineers Ireland and the Institute of Structural Engineers.

ENGINEERING ACTIVITIES

Structural Engineering, Civil Engineering, Environmental Engineering, Traffic and Transportation, Technical Due Diligence, Site Feasibility Studies, Planning Applications, Project Management.

PROJECT TYPES

Structural Engineering, Civil Engineering, Due Diligence Reports, Feasibility Studies, Value Engineering, Planning Applications, Protected Structure refurbishment.

DBFL CONSULTING ENGINEERS

Ormond House, 28 Upper Ormond Quay,
Dublin 7. D07 W704

T: +353 (0)1 400 4000

E: info@dbfl.ie

W: www.dbfl.ie

OFFICES

14 South Mall, Cork. T12 CT91
T: +353 (0) 21 202 4538

Odeon House, 7 Eyre Square, Galway. H91 YNC8
T: +353 (0) 91 335599

Suite 8b The Atrium, Maritana Gate, Canada Street, Waterford. X91 W028
T: +353 (0) 51 309 500

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Dan Reilly,** BEng, CEng, FConsEI
- **John Hayes,** BScEng ,CEng ,MIEI, FConsEI
- **John Keane,** BSc (Eng), CEng, MIEI, MICE, FConsEI

TOTAL EMPLOYEES

200

ABOUT THE FIRM

DBFL Consulting Engineers is a fully Irish-owned firm, specializing in the planning, engineering design and delivery within the property, infrastructure, environmental & energy sectors, for 38 years. We have a deep connection with our clients and the communities we serve.

We are dedicated to delivering innovative, resilient and sustainable engineering solutions. Our core values - Sustainability, Integrity, Adaptability, Excellence, Innovation, and Inclusivity - are the foundation of everything we do, guiding our approach to each project and helping us stay true to our mission of **Engineering Sustainable Futures**.

DBFL operates an Integrated Management System with NSAI-accredited ISO 9001:2015 NSAI certified Quality, ISO 45001:2018 Health and Safety and ISO 14001:2015 Environmental Management Systems.

As an Engineers Ireland CPD-accredited company and a proud Silver Investors in Diversity organisation, we are committed to recognising the value of creating a diverse, inclusive, and affirming workplace for our staff.

ENGINEERING ACTIVITIES

Civil, Structural, Traffic, Transportation & Transport Planning, Expert Witness, Marine, Sustainable Drainage, Energy, Flood Risk & Management, Geotechnical, Masterplanning, Conservation and Adaptive Reuse, Sustainable Engineering, PSDP, Building Information Modelling (BIM), Water Supply & Sewerage.

PROJECT TYPES

Commercial, Infrastructure, Active Travel, Traffic and Transportation, Contractor Design (D&B), Due Diligence, Residential, Roads, Maritime, Aviation, Public Buildings, Student Accommodation, Data Centres, Expert Witness, Bridge Design & Assessment, Sports Facilities, Hospitality, Education, Public Realm, Healthcare, Conservation & Refurbishment, Industrial & logistics, Retail, Water, Energy Facilities & Infrastructure.

DELAP & WALLER

1st Floor, Bloomfield House, Bloomfield Avenue, Dublin 8. D08 WT10

T: +353 (0)1 535 5900

E: michael@delapandwaller.com

W: www.delapandwaller.com

OFFICES

Delap & Waller, Unit 12, Antrim Technology Park, Antrim, BT41 1QS
T: +44 (0)28 9448 3800

London Office, 91 Clapham Road, London, SW9 0HY
T:+44 (0)208 059 7373

Street No. 16, Musaffah Industrial Area, Abu Dhabi, UAE
T: +971 2 406 7888

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Michael O'Doherty,** BEng, CEng, MCIBSE, MIMechE, FConsEI

TOTAL EMPLOYEES

15

ABOUT THE FIRM

Founded in Dublin in 1911, Delap & Waller is a Building Services and Sustainable Design Consultancy who are engaged in designing mechanical, electrical and sustainability systems for all Building types. We have been providing market leading engineering services for end-user clients, developers, main contractors and design and build / PPP contractors for over 100 years. In addition to our tailored mechancial and electrical design services we offer a range of related services including sustainability services and specialist legal services. As qualified engineers we can produce legal reports on a variety of issues ranging from mechanical or electrical damage to properties, planning permission disputes to accident reports. Some of the sustainable services we offer include: BREEAM Assessments/ BER Certificates/ CFD Modelling / Building Simulation/ Code for Sustainable Homes/ Energy Management/ Environmental Studies and Engineering/Life Cycle Costing/Sustainable Building Services – SBEM & EPC Assessors Some of our recent awards include the ACE Consultancy of The Year and NI Construction Excellence Award in Commercial Development Category.

ENGINEERING ACTIVITIES

Sustainable Building Services, Electrical Engineering, Mechanical Engineering, Energy Management, Health and Safety, Project Management, Accident Investigation, Arbitration and Litigation.

PROJECT TYPES

Commercial/Office, Healthcare/Hospital, Infrastructure, Education; Retail, Hotel/Leisure, Residential/Mixed Use, Heritage/ Museums, Sports Stadiums.

D. FALLON CONSULTING ENGINEERS

25 Calbro Court, Tuam Road, Galway. H91 YKH4

T: +353 (0)91 380792

E: info@dfcg.ie

W: www.dfcg.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Damien Fallon,** B Eng, M Eng Sc, C Eng, MIEI, FConsEI

TOTAL EMPLOYEES

15

ABOUT THE FIRM

D. Fallon Consulting Group (DFCG) is a multi-disciplinary construction consultancy company operating out of Galway and Dublin, providing services nationwide. We work with many of Ireland's blue-chip public and private sector infrastructural clients. The group incorporates D Fallon Consulting Engineers (DFCE) and D Fallon Building Design (DFBD) to provide full AEC services to clients on major public and private sector building and infrastructural projects. DFCE is our civil and structural consultancy company, with DFBD our architectural consultancy company. DFCG also works with established building services and quantity surveying consulting partners to provide full single point design team services to clients, when required.

ENGINEERING ACTIVITIES

Civil & Structural, Design Team services.

PROJECT TYPES

Public and Private Sector Building and Infrastructural Projects, Project Management, Employer's Representative Services, Single-Point Design Team Management, Quantity Surveying (with strategic partner company), Building Services Engineering (with strategic partner company), Civil Engineering, Structural Engineering, Drainage Engineering, Traffic Engineering, Road Safety Audits, Mobility Management Plans, Environmental Engineering, Water & Wastewater, Structural Surveys, Project Supervisor Design Process (PSDP), Architectural Services, Masterplanning, REVIT BIM / 3D Visualisations, Fire Safety & Disability Access Certificates, Building Regulations Surveys, Assigned Certifier Specialists, Design Certifier Specialists.

DOHERTY FINEGAN KELLY

Botanic Court, 30-32 Botanic Road, Glasnevin,
Dublin 9. D09 W2V9

T: +353 (0)1 830 1852

E: mailroom@dfk.ie

W: www.dfk.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Cathal Kelly,** BSc Eng, Dip Struct Eng, CEng, MIStructE, MIEI, PGDip (FSP), PGDip (PM), FConsEI
- **Emmet Finegan,** BSc Eng, Dip Struct Eng, CEng MIStructE, MIEI, FConsEI

TOTAL EMPLOYEES

19

ABOUT THE FIRM

Doherty Finegan Kelly (DFK) Consulting Engineers was established in 2003 and specialises in all stages of civil, structural, environmental and fire engineering. With three offices, DFK is well located to provide a high quality service to our client base throughout the country with attention to detail and cost effective solutions being our priority. Each commission is personally supervised by a director who takes an active role in the evolution of the scheme from concept to completion. The company is registered with the Association of Consulting Engineers of Ireland (ACEI) and all technical staff are members of Engineers Ireland and The Institute of Structural Engineers.

ENGINEERING ACTIVITIES

Civil, Structural, Environmental, Fire Safety, Health & Safety, Legal & Reporting.

PROJECT TYPES

All Types of Business & Retail Parks, Commercial & Industrial Developments, Healthcare & Hospitals, Residential & Domestic Developments, Restoration / Refurbishment, Infrastructural Development Works, Sports & Leisure Facilities including All-Weather Playing Surfaces, Hotels, Nursing Homes & Childcare Facilities, Educational & Schools, Health & Safety & PSDP Role, Legal / Litigation & Expert Witness, Conservation Works, Legal & Planning Reports, Sewerage & Main Drainage, Fire Safety Engineering, Land & Legal Mapping, Percolation & Infiltration Testing & Reports, Storm Water Management, Roads & Junctions, Project Management, Building Energy Ratings – Domestic, Value Engineering, Temporary Works Design.

DONNACHADH O'BRIEN & ASSOC CONSULTING ENGINEERS

Unit 5C, Elm House, Millennium Park, Naas,
Co. Kildare. W91 P9P8

T: +353 (0)45 984042 / +353 (0)87 223 1452

E: d.obrien@doba.ie

W: www.doba.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Donnachadh O'Brien,** BScEng, CEng, MIEI, DipEng, DipEnvirEng, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEER

- **Paul Doyle,** BE (Hons), CEng, MIEI, RConsEI
- **Richard Kiernan,** BE (Hons), CEng, MIEI, RConsEI
- **Alan Lambe,** BEng, CEng, RConsEI

TOTAL EMPLOYEES

19

ABOUT THE FIRM

Donnachadh O'Brien & Associates is a civil and structural engineering practice and was established in 2010. Donnachadh O'Brien has over 28 years' experience in civil and structural engineering and the practice is involved in the design of a wide variety of projects in both the public and private sector for local authorities, semi-state organisations, institutional companies, private sector companies, private developers and international clients. Our aim is to deliver technical excellence in our design solution in a sustainable and cost-effective manner. We utilise the latest BIM technologies compatible with our civil and structural design software in the delivery of innovative engineering solutions, all in accordance with our I.S. EN. 9001 quality accredited system.

ENGINEERING ACTIVITIES

Structural Engineering, Civil Engineering.

PROJECT TYPES

Commercial Developments, Hotels, Residential Developments including Student Accommodation, Educational Projects, Healthcare, Leisure/Sports including Stadia, Domestic, Conservation Engineering and Refurbishment, Project Management, Infrastructure & Drainage Schemes /SUDS Design, Flood Alleviation Schemes, Temporary Works Design, Value Engineering, Expert Witness & Legal Services.

DON O'MALLEY & PARTNERS LTD

92 O'Connell Street, Limerick. V94 RKT1

T: +353 (0)61 318 677

E: accounts@domalley.com

W: www.domalley.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Liam Kavanagh,** HDip, CEng, FCIBSE, MIEI, MASHRAE, FConsEI

TOTAL EMPLOYEES

14

ABOUT THE FIRM

Don O'Malley & Partners was established in 1967 and is a leading registered consulting engineering practice specialising in mechanical and electrical building services engineering. The company is based in Limerick City and has gained a reputation for high quality design and service in the construction industry. Our project portfolio includes work on commercial, industrial, office, residential, education, health care, retail, public buildings, culture and heritage buildings, hospitality and sports and leisure projects. Our in-house expertise is provided by highly skilled and experienced chartered engineers, degree-qualified engineers and technicians. We utilise the latest mechanical and electrical services and design technologies in the delivery of innovative and efficient solutions.These technologies include IES Virtual Environment Design software, REVIT 3D software and AutoCAD version 2017. We can deliver engineering services and design solutions for a range of buildings that are now required to meet the latest standards for compliance with Nearly Zero Energy Buildings (NZEB) regulations.

ENGINEERING ACTIVITIES

Mechanical and Electrical Design Consultancy.

PROJECT TYPES

Commercial, Industrial, Office, CAT A and CAT B Fitouts, Residential, Education, Health Care, Retail, Public Buildings, Culture & Heritage Buildings, Hospitality and Sports & Leisure Projects.

DOUGLAS CARROLL CONSULTING ENGINEERS

Suite 7, 3rd Floor, Station House, Railway Square, Waterford. X91 XK8Y

T: +353 (0)51 306 670

E: info@dceng.ie

W: www.dceng.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Pearse Douglas,** CEng, MIEI, BScEng, FConsEI (Managing Director)

TOTAL EMPLOYEES

21

ABOUT THE FIRM

Douglas Carroll Consulting Engineers Ltd was established in 2005 and has two directors: Pearse Douglas (Managing Director) and Ted Carroll (Director/Partner). Douglas Carroll provides a consultant mechanical and electrical engineering service and specialises in low energy design using innovative and sustainable design solutions. We focus on integration of services into the built environment.

ENGINEERING ACTIVITIES

Electrical, Mechanical, Lift Services, Health and Safety, Project Management, Project Supervisor Design Process (PSDP), REVIT Team, Energy Modelling, Energy Audits.

PROJECT TYPES

Healthcare Infrastructure, Residential, Government, Food Processing, Education, Manufacturing, Commercial, Retail, Conservation, Office Fit-out, Large Campus Mechanical & Electrical Infrastructure Upgrades.

DOWNES ASSOCIATES

Cashel Business Centre, Cashel Road, Kimmage, Dublin 12. D12 ET25

T: +353 (0)1 490 1611

E: admin@downesassociates.ie

W: www.downesassociates.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Gavin McHugh,** BE, BSc, MSc, MIStructE, CEng, FIEI, FConsEI

TOTAL EMPLOYEES

25

ABOUT THE FIRM

Downes Associates established in 1997, is a structural and civil engineering consultancy specialising in the delivery of quality civil and structural design solutions. The practice serves a wide range of private and public sector clients throughout Ireland and has extensive experience in the commercial, residential, industrial and institutional sectors. Downes Associates' core objectives are to provide quality structural designs that are functional, elegant, economic and innovative where possible together with quality drawings and details, as these are vital in communicating designs to the client, building contractor and other design professionals. To deliver these objectives Downes Associates employs a fully integrated team of motivated, skilled and highly qualified engineers and technicians. Downes Associates' client base is wide and varied. Since formation, the practice has worked with local authorities, semi-State organisations, institutional companies, private sector companies, private developers and international clients. The wide client base and the very different types of projects successfully completed reflect the varied nature of engineering demands placed on the skill and experience of the staff.

ENGINEERING ACTIVITIES

Civil & Structural.

PROJECT TYPES

Office building, Industrial Developments, Schools, Municipal Buildings, Residential Developments, Retail Developments, Data Centres, Temporary Works, Conservation and Historic, Healthcare.

EGIS

Classon House, Dundrum Business Park, Dundrum Road, Dublin 14. D14 T9T0

T: +353 (0)1 485 1400

E: info.ireland@egis-group.com

W: www.Egis-group.com

OFFICES

3A Eastgate Road, Eastgate, Little Island, Co. Cork. T45 KH74
T: +353 (0)21 452 4418

Unit 14C, N5 Business Park, Moneen Road, Castlebar, Co. Mayo. F23 E283
T: +353 (0)94 903 8013

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Anne Marie Conibear,** BE, CEng, MICE, FIEI, Masters in Business Practice, FConsEI
- **Maurice O'Donoghue,** BE, Eur Ing, CEng, FIEI, Dip PM, FConsEI
- **Eamon Daly,** BE, MEngSc, CEng, MIEI, FConsEI
- **Peter Morehan**, BE, CEng, MIEI, FConsEI
- **Marcus Fagan**, BEng, CEng, FConsEI
- **Garry Flood**, Dip Eng, BSc(Eng), CEng, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEER

- **Ben Gaffney,** BE, MENG, CENG, FIEI, RConsEI

TOTAL EMPLOYEES

203

ABOUT THE FIRM

Egis is a leading global architecture, consulting, construction engineering, and operating firm. In Ireland, our consulting engineering division designs and delivers innovative and sustainable projects in water and energy, urban and intercity transportation and structures, urban development, and buildings. We work with clients to solve complex challenges and to deliver climate-responsible growth that meets the needs of communities, industry and the planet. Our engineering service combines design excellence with consideration for environment, planning, energy optimisation & management, health & safety, and risk & value engineering. We work with national and local government, state agencies, contractors, developers, and private clients; our emphasis is on sustainability, social impact and innovation. J.B. Barry and Partners and Barry Transportation became part of Egis in 2023.

ENGINEERING ACTIVITIES

Civil, Structural, Process, Mechanical, Electrical, Traffic, Transportation, Environmental and Geotechnical Engineering; Quantity surveying, Cost Estimates and Cost Control; Planning, Licensing and EIAR; Project and Programme Management; Health and Safety/PSDP; Contract Preparation, Administration and Dispute Resolution.

PROJECT TYPES

Water Supply Networks, Water Treatment Plants, Wastewater Collection Systems, Wastewater Treatment Works, Sludge Treatment, Sea Outfalls, Renewables, Solar/PV & Windfarms, Flood Risk Assessments, Flood Relief Schemes, Tunnels, Roads, Highways, Bridges and Culverts, Motorway Service Areas, Traffic, Rail, Rapid Transit, Metro, Bus, Tram, Active Travel/Greenways, Road Safety Audits, Commercial, Institutional, Industrial and Residential Buildings and Site Development Works.

EIRENG CONSULTING ENGINEERS LTD

3 Rogans Court, Patrick Street, Dun Laoghaire, Co. Dublin. A96 T0H2

T: +353 (0)1 663 8957

E: info@eireng.ie

W: www.eireng.ie

OFFICES

Cambridge House, Henry Street, Bath, BA1 IBT, UK
T: +44 (0) 1225 618 222

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Conor Hanney,** BSc, ME, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

33

ABOUT THE FIRM

EirEng Consulting Engineers was formed by Terry Sheehan and Jeremy Lamb in 2011 to address the need for engineering services that concentrate on client value and the use of integrated design at reasonable cost. This is achieved through the extensive use of BIM on our projects. We are dedicated to providing our clients with tailor-made solutions that provide the optimal combination of operational efficiency and whole life cost. We build strong and long-lasting relationships with our clients and fellow professionals with whom we interact based on mutual respect and co-operation. We break problems down into clear and manageable components to ensure that all parties are involved. At EirEng we give the same care and attention to detail to a simple house extension as to a multi-million euro, E-commerce, automated facility. EirEng has offices in Dublin and operates in Ireland, the UK and the Middle East. Specialist projects outside of these locations are taken on an individual basis where our particular skills, knowledge or experience can bring our clients a competitive edge.

ENGINEERING ACTIVITIES

Civil Engineering, Structural Engineering, Environmental Engineering, Flooding Studies and Marine Structures, Sustainable Design, Temporary Works Design.

PROJECT TYPES

Commercial Buildings and Mixed Use Developments, Logistics and Retail Developments, E-Commerce and Data Centres, Healthcare, Conservation and Heritage, Educational Buildings at all Levels, Sports & Leisure, Hotels and Car Parks, Residential including House Extensions, Building and Site Repurposing, Civil Infrastructure and Masterplanning, Flooding and Environmental Studies.

ENGENUITI CONSULTING ENGINEERS

Unit 3, Westpoint Business Centre, Link Road, Ballincollig, Cork. P31 YK52

T: +353 (0) 21 242 7257

E: info@engenuiti.ie

W: www.engenuiti.ie

OFFICES

Dublin - 6 Fern Road, Sandyford Business Park, Sandyford, Dublin. D18 FP98
T: +353 (0)1 964 9170

Tralee - HQ Tralee, Dominick Street, Tralee, Co. Kerry. T12 W7CV
T: +353 (0)66 716 9016

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Robert White**, BEng, BSc(Hons), MEngSc, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

7

ABOUT THE FIRM

Founded in 2019, Engenuiti is the embodiment of over 70 years' collective experience in the architecture, engineering and construction sector. Our expertise shines in Civil & Structural Engineering, shaping projects from roads and bridges to energy initiatives. With a focus on meticulous design and adept project management, our team excels in delivering results that go beyond expectations.

ENGINEERING ACTIVITIES

Civil/Structural engineering, Architecture, Building Services Engineering, Project Management.

PROJECT TYPES

Education, Industrial/Commercial, Life Science, Residential.

ENGINEERING DESIGN CONSULTANTS LTD

4th Floor, River House, Blackpool Retail Park, Cork. R23 R5TF

T: +353 (0)21 428 0476

E: info@edcengineers.com

W: www.edcengineers.com

OFFICES

Dublin - Unit 4, Grand Canal Wharf, South Dock Road, Dublin 4. D04 X6P3
T: +353 (0)1 531 3693

Limerick – 64 O'Connell Street, Limerick City. V94 886V

Galway – 1st Floor Technology House, Galway Technology Park, Parkmore, Galway. H91 DH2W

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Richard O'Farrell**, BE, BSc, FConsEI

TOTAL EMPLOYEES

98

ABOUT THE FIRM

With over two decades of engineering expertise, EDC holds the distinction of being the first Lloyds BIM Level 2 Certified Consultancy in the UK and Ireland. With offices strategically positioned in Cork, Dublin, Galway, Istanbul, Limerick and London, EDC is well-placed to deliver exceptional service to clients on projects spanning Ireland and beyond.

Having successfully delivered over 1500 projects across Ireland, the UK and Africa, EDC continually invests in its people and technology, allowing agile expansion of service offerings to cater to evolving client needs. Committed to sustainable design, EDC takes pride in designing low-energy, high-performance buildings and is a certified HPI assessor.

ENGINEERING ACTIVITIES

Mechanical and Electrical Engineering, Specialist Lighting Design, Lifts and Vertical Transportation, Green Certification including BREEAM, LEED & WELL. Building Energy Rating (BER) Assessors, SAP Calculations, TM52 IES Overheating Analysis for apartments and communal corridors, CF Analysis for corridor smoke extract systems, CFD Analysis for car park smoke extract systems, MEP Installation Drawings Package Solution, Building Information Modelling (BIM), Design Audit and Peer Review.

PROJECT TYPES

Commercial, Mixed-Use Development, Residential, Life-Sciences, Energy From Waste, Pharmaceutical, Education, Leisure, Hospitality, Government, Industrial, Data-Centres, Logistics and Warehousing, Conservation and Heritage, Retrofitting.

ENVIRONMENTAL DESIGN PARTNERSHIP

Block B1, Centre Point Business Park, Oak Road, Dublin 12. D12 FP96

T: +353 (0)1 409 2800

E: admin@edp-engineers.com

W: www.edp-engineers.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **James Fogarty,** CEng. FCIBSE, MCiarb/AccMed, MSLL, FConsEI

TOTAL EMPLOYEES

9

ABOUT THE FIRM

Environmental Design Partnership is a modern building services engineering consultancy practice operating for more than 25 years, providing professional, independent services across a broad range of commercial, industrial, leisure, retail, residential, educational, healthcare and energy consultancy sectors. The practice has grown steadily and has gained a reputation for providing innovative and cost-effective quality design solutions.

Our dynamic but personal management provides a thorough understanding and focus on development, design and project management, thus ensuring energy efficiency, life cycle and cost competitiveness for all our developments.

Our highly qualified staff provide experienced, strong technical input and have the necessary expertise for a complete and integrated building services design, this combined with our in-house quality assurance system results in high client satisfaction on projects.

EDP has experience of and is committed to, providing clients with the highest level of design on projects and delivering the projects within budget and programme.

ENGINEERING ACTIVITIES

Mechanical and Electrical Engineering, Heating/Ventilating and Air-Conditioning,Green Technology,Energy Renewables, Industrial Project Management, Fire & Security Engineering, Services Cost Control, Sustainable Engineering Design & Modelling, BER Assessors, DEC Assessors, LEED Assessors, Cost Management & Control, Performance Evaluation/Commissioning.

PROJECT TYPES

Educational Buildings, Hospitals / Healthcare Buildings, Factories / Production, Offices / Commercial, IT Facilities / Communications, Pharmaceutical Clean & Sterile Rooms, Electronic Manufacturing Clean Rooms, Hotels Leisure Centres, Shopping & Centres, Sports Stadia Facilities, Security Installations, Protected Structures / Historical Buildings, Fire fighting & Detection, Automatic Smoke & Environmental Control, Feature & Flood Lighting, Conservation Lighting.

EAMON O'BOYLE AND ASSOCIATES

51 Cullenswood Road, Ranelagh, Dublin 6. D06 X7P1

T: +353 (0)1 498 2178

E: info@eoba.ie

W: www.eoba.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Eamon O Boyle,** BE, MAI, CEng, FIEI, FConsEI

TOTAL EMPLOYEES

22

ABOUT THE FIRM

Eamon O'Boyle & Associates (EOBA) was established in 2001 by Chartered Engineer Eamon O'Boyle to provide comprehensive consultancy services in fire engineering and public safety. Under Eamon's leadership as CEO, the company has grown significantly, earning a reputation for delivering high-quality, innovative, and diverse solutions tailored to clients across various sectors. EOBA's success is driven by a strong leadership structure that includes directors who work alongside Eamon to guide the company's strategic direction, as well as associate directors who bring specialised expertise and insight to key areas of the business. This cohesive leadership team, supported by a highly skilled group of consultants from both public and private sector backgrounds, ensures that EOBA delivers exceptional results on every project.

EOBA remains dedicated to professional development, ensuring that every team member is equipped to provide innovative and tailored solutions. Together, the team upholds EOBA's reputation as a leader in fire engineering and public safety consultancy.

ENGINEERING ACTIVITIES

FSC Applications, Fire Engineering Solutions, Fire Safety Modelling, Life Safety System Specification, Fire Risk Assessments, Construction Inspections, Ancillary Certification, Fire Investigations, Emergency Response Plans, Fire Safety Management, Fire Safety Training, Universal Access Design, Health and Safety Services.

PROJECT TYPES

Educational and healthcare facilities, Industrial and manufacturing buildings, Commercial offices and IT centres, Pharmaceutical and electronic facilities, Hotels, leisure, and shopping centres, Sports and entertainment venues, Security and historical structures, Fire detection and suppression systems, Residential Developments.

FAHEY O'RIORDAN CONSULTING ENGINEERS

Shanaclogh, Cappagh, Cappawhite,
Co. Tipperary. E34 WD96

T: +353 (0)62 75929 / +353 (0)87 933 9582

E: info@force.ie

W: www.force.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **John Fahey,** BSc(Eng), MPM, MIEI, CEng, FConsEI

TOTAL EMPLOYEES

3

ABOUT THE FIRM

The practice was established in 2009 and offers a comprehensive range of professional consultancy services in the areas of mechanical and electrical engineering, project management and construction supervision. The practice has a successful track record the delivery of a wide range of projects across all sectors of the industry to both private and public sector clients.

ENGINEERING ACTIVITIES

Mechanical & Electrical, Heating Ventilation & Air Conditioning, Public Lighting, Value Engineering / M&E Cost Control, Project Management, PSDP Services.

PROJECT TYPES

Healthcare, Nursing Homes, Education, Schools, Commercial Offices, Industrial Facilities, Community Centres, Sports Centres, Hotel & Leisure, Retail / Mixed Use, Infrastructure / Business Parks, Public Realm / Urban Renewal, Residential, Condition Reports, Feasibility Studies, Water / Wastewater (M&E).

FALLON DESIGN

Avocet House, Riverwalk, Arklow Co. Wicklow.
Y14 XD68

T: +353 (0)40 220612

E: mark@fallondesign.ie

W: www.fallondesign.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Mark Fallon,** BEng (Hons) Building Services, CEng, DipPM, FConsEI

TOTAL EMPLOYEES

8

ABOUT THE FIRM

Fallon Design is primarily engaged in providing M&E consulting engineering services. Main engineering activities are mechanical and electrical, BER, Site Services, Planning Consultation, sustainability and water conservation. Assigned Certifier for residential, mixed developments, commercial and industrial projects.

ENGINEERING ACTIVITIES

M&E, Sustainability, Water Conservation, BER, Site Services, Planning Consultation.

PROJECT TYPES

Residential, Mixed developments, Commercial, Industrial.

FEARON O'NEILL ROONEY

12 Windsor Place, Lower Pembroke Street,
Dublin 2. D02 W566

T: +353 (0)1 676 6167

E: info@fonr.ie

W: www.fonr.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Jose Poveda,** BSc(Eng), CEng, FConsEI
- **Mark Gill,** BSc(Eng), CEng, FConsEI

TOTAL EMPLOYEES

6

ABOUT THE FIRM

Fearon O'Neill Rooney has over 40 years' experience operating as civil and structural consulting engineers in the construction industry. The practice was established in 1970 by Dermot Fearon. John Rooney and Terry O'Neill subsequently joined the practice in 1973 and 1976 respectively. Jose Poveda joined the firm in 1992 and Mark Gill in 1997 and both became partners in the practice in 2010 following Terry O'Neill's retirement from the office. Terry is currently engaged as a consultant to the practice. Since the firm commenced practice in 1970, personal service has been an important and consistent objective. It has been our policy to employ a compact staff of high calibre with a commitment to self-development and a facility for working as a team. The practice provides an engineering consultancy service to a wide range of clients principally in the fields of civil and structural engineering. Our client base extends from private individuals to national and international private and public institutions. Although the majority of our work is in structural engineering, Fearon O'Neill Rooney has also offered a wide range of civil engineering services over the last 40 years. Fearon O'Neill Rooney encourages, where possible the use of construction techniques that are environmentally responsible and resource efficient, from the initial scheme design stage of each project and throughout the life of the building. Our design approach is based on a commitment to providing the very best civil and structural design service that meets the client's key requirements in terms of programme, cost and quality.

ENGINEERING ACTIVITIES

Civil and Structural Engineering, Project Management, Value Engineering, Sustainable Design, Conservation and Restoration, Expert Witness Services.

PROJECT TYPES

Hospitals, Apartments, Industrial Developments, Office Developments, Brewing Associated Work, Retail Parks/Shopping Centre, Restoration/Conservation, Schools, Churches/Cathedrals, Bridges and Bridge Refurbishment, Housing Developments, Planning Rezoning, Drainage Schemes.

FEHILY TIMONEY & COMPANY

Core House, Pouladuff Road, Cork. T12 D773

T: +353 (0)21 496 4133

E: info@ftco.ie

W: www.fehilytimoney.ie

OFFICES

Unit 3/4, Northwood House, Northwood Crescent, Northwood, Dublin, D09 X899 T: +353 (0)1 658 3500

Unit 6, Bagenalstown Industrial Park, Royal Oak Road, Muine Bheag, Co. Carlow, R21 XW81 T: +353 (0) 59 972 3800

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Sinéad Timoney,** BE, HDip HSWW, CEng MIEI, FConsEI
- **Beren De Hora,** BE, CEng MIEI, FConsEI
- **Jim Hughes,** BA, MSc, HDip, MIPI, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEERS

- **Gene Flynn,** BEng, PDipEng, CEng MIEI, RConsEI
- **James O'Neill,** BE, MSc, CEng MIEI, MCIWM, CEnv, RConsEI
- **Tom Clayton,** MEng, CEng MICE, RConsEI
- **Trevor Byrne,** BEng, BSc, MSc, Adv Dip, CEng, MIEI, RConsEI
- **Billy Bohane,** BE, CEng MIEI, RConsEI

TOTAL EMPLOYEES

100

ABOUT THE FIRM

Established in 1990, Fehily Timoney and Company has grown to be one of the largest Irish owned civil and environmental engineering, scientific and planning consultancy. Specialising in the delivery of complex projects for our global clients, FT offers a total project management solution, acting as consultants from initial project planning and feasibility through to detailed design, construction supervision, commissioning and handover.

ENGINEERING ACTIVITIES

Circular Economy, Civil Infrastructure, Environmental Science, Energy & Planning, Geotechnical Engineering, Sustainable Infrastructure, Urban Development and PSDP.

PROJECT TYPES

Circular Economy and Environment: Environmental Monitoring, Modelling and Assessment, Contaminated Land, Baseline Emission Inventories, Climate Mitigation, Climate Action Plans, Sustainable Assessments, Public Realm. Civic Amenities, Waste Transfer Facilities, Material Recovery Facilities, Historic Landfills, Leachate and Landfill Gas Management, Land Reuse Assessment, Wetland Specialists, Waste Characterisation, Planning Applications, EIARs, Anaerobic Digestion, Biomethane, Composting.

Energy and Planning: Onshore and Offshore Wind Energy Developments; Utility Scale Solar Energy Developments; Electrical Grid Infrastructure including, HV and MV Substations, Battery Storage and Ancillary Grid Infrastructure. Urban Development including Residential and Commercial Development. Biodiversity Net Gain, EIARs, and Ecological Impact Assessment and Surveys & GIS.

Sustainable Infrastructure: Roads, Utilities, Geotechnical Engineering, Stability Assessments, Bridges, Structures, Drainage, Active Travel, Greenways, Blueways, Industrial, Pharma, Bund and Lagoon Testing and Certification, Transportation (Bus, Rail, Metro), Residential, Ancillary Civil Works, Marine and Coastal and Wind Farms.

FRANK FOX & ASSOCIATES

7 Bank Lane, Waterford. X91 XA61

T: +353 (0)51 872 799

E: info@ffaeng.com

W: www.ffaeng.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Frank Fox,** CEng, Eur Ing, FIEI, MIStructE, FConsEI

TOTAL EMPLOYEES

8

ABOUT THE FIRM

Frank Fox & Associates has established a track record and reputation in Waterford, Southeast Region and abroad. We are very proud to have been involved in the development of major construction projects in the area and to retain the support of our clients. We strive to provide our clientele with flexible economic designs within time and budget constraints.

The firm was founded in 1982, Initially providing a civil/ structural consultancy service for the design, procurement and management of industrial and commercial projects in the Southeast. It expanded steadily to work on a variety of projects nationwide, in the UK and Europe. Its current client base covers a diversity of business and community interests.

ENGINEERING ACTIVITIES

Structural, Civil, Project Management, Health & Safety.

PROJECT TYPES

Airport, Pharmaceutical, Industrial, Retail & Commercial, Banks, Schools, Healthcare, Site Remediation, Residential Development, Sports and Leisure, Hotels.

FUREY CONSULTING ENGINEERS LTD

Olde World Cottage, Rathasker Road, Naas,
Co. Kildare, W91PW68

T: +353 (0)45 486 229

E: info@fureyconsulting.ie

W: www.fureyconsulting.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Emmet Furey,** B.E., C.Eng, M.I.E.I., FConsEI

TOTAL EMPLOYEES

6

ABOUT THE FIRM

Furey Consulting Engineers is based in Naas, Co. Kildare. We are consultants to all areas of construction. Furey Consulting Engineers was established in 1994, as an engineering consultants firm to provide services the design of all aspects of construction including drainage, structural engineering, site supervision, inspections and surveys. We have grown considerably from our original concept and have expanded into full design and project management.

While we still are proud to provide a very high quality service in structural and civil engineering, our expansion into architectural and project management is still a major aspect of the services being offered. In the current climate this service has been used by our clients to address specific site problems and, working with them and the local authorities, we have successfully found solutions that have been of major benefit to our clients.

We also work in association with a number of specialist service companies to offer a wide range of integrated services where the combination of the resources allows us offer a comprehensive one-stop shop for all project management requirements.

ENGINEERING ACTIVITIES

Structural and Civil Engineering, Flood Risk Assessments, Planning Services, Assigned Certifier / BCMS Compliance, PSDP (Project Supervisor Design Stage), Fire Consultancy, Disability Access Certificates, Building Information Modelling (BIM), Drainage Design, Building Design, Building Surveys, Re-Zoning Consultancy, Technical Support to the Legal Profession.

PROJECT TYPES

Housing Developments, Site Infrastructural Design, Commercial and Industrial Buildings, Nursing Homes, Schools, Mixed Use Developments, Structural Design for Domestic Projects.

GARLAND

Garland House, 28-30 Rathmines Park,
Dublin 6. D06 F8Y1

T: +353 (0)1 496 4322

E: info@garlandconsultancy.com

W: www.garlandconsultancy.com

OFFICES

Riverfront, Howley's Quay, Limerick. V94 W3F1
T: +353 (0)61 319 708

Suite 11B, The Atrium, Maritana Gate, Canada Street,
Waterford. X91 WR40
T: +353 (0)51 876 511

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Kevin Rudden,** BScEng, DipEng, DLS, CEng, FIEI, Eur Ing, FConsEI
- **Brian Kavanagh,** BE, DipProjMgmt, CEng, FIEI, Eur Ing, FConsEI
- **Caimin Jones,** BE, CEng, FIEI.Eur Ing, FConsEI
- **Brian Lahiff,** BE, PGradDip, CEng, MIEI, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEERS

- **Tommy Morey,** BE, CEng, MIEI, RConsEI
- **Simon Dunne,** BEng, MIStructE, MIEI, CEng, RConsEI

TOTAL EMPLOYEES

45

ABOUT THE FIRM

Founded in 1937, Garland is an international consulting engineering firm that has worked in over 30 countries worldwide. We provide a full range of civil and structural consulting engineering services, starting from feasibility study to detailed design and construction administration. We also offer specialist services in construction safety management, project management and planning, as well as social and economic development. Our highly experienced teams are renowned for prestigious work within the healthcare, educational, infrastructure, commercial and residential sector.

ENGINEERING ACTIVITIES

Structural, Industrial, Planning, Civil, Project Management, Coastal Protection, Refurbishment, Environmental, Marine, Traffic, Geotechnical, Fire, Health and Safety, Assigned Certifier, Project Supervisor Design Process (PSDP).

PROJECT TYPES

Airport, Civil, Coastal Protection, Commercial, Educational, Healthcare, Hotels, Industrial, Public, Residential, Private Dwellings, Refurbishment, Retail, Sports and Leisure.

GDCL CONSULTING ENGINEERS LTD

Scope House, Whitehall Road West, Perrystown, Dublin 12. D12 K8PP

T: +353 (0)1 563 8342

E: info@gdalyconsulting.com

W: www.gdalyconsulting.com

OFFICES

75 Shelton Street, Covent Garden, London WC2H 9JQ
T: +44 (0)20 3286 1540

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Gregory Daly,** MBA, BSCEng, DipEng, Dip Highway & Geotech Eng, CEng, MIStructE, MIEI, DipArb, MCIArb, FConsEI

TOTAL EMPLOYEES

12

ABOUT THE FIRM

GDCL Consulting Engineers provide civil/structural engineering and project management services to a wide range of local and international clients both in the private and public sectors. GDCL Consulting Engineers has a proven track record of successful delivery over 20 years across a wide variety of construction projects including commercial, residential/housing, process/ pharmaceutical, leisure/process, refurbishment and renewables. We have the capability to produce fully integrated BIM models using the latest software/drawing office technology, including Revit.

ENGINEERING ACTIVITIES

Structural Engineering Design: New build and Refurbishment Projects - all materials including reinforced concrete, structural steelwork, precast concrete, masonry, timber. Structural Survey, Temporary Works Design, Structural Strengthening, Blast Resisting Design, Seismic Engineering, Design for Vibration.

Civil Engineering Design: Surface Water Drainage, Foul Drainage, Wastewater Engineering, GMP Containment, Roads, Site Specific Flood Risk Assessment, Traffic Engineering, Earthworks Control, Geotechnical Engineering, Coastal Protection.

Project Management: Design Team Management, Client Representation Contract Administration, Conceptual Design Studies, Feasibility Studies, Code Compliance Specialists, Building Control Regulations, (BCAR / Assigned Certifier). Dispute Resolution, Arbitration (UNCITRAL Model Law), Conciliation, Mediation, Adjudication, Expert Witness, Claims Consultancy.

PROJECT TYPES

Commercial, Residential/Housing, Process/Pharmaceutical, Leisure /Process and Renewables.

GLENN NUNAN CONSULTING ENGINEERS (GNCE)

16 Merrion Row, Dublin 2, D02 CF90

T: +353 (0)1 602 0678

E: glenn@gnce.ie

W: www.gnce.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Glenn Nunan,** BSc Eng (Hons), CEng, MIEI, MCIBSE, ACFE, FConsEI

TOTAL EMPLOYEES

1

ABOUT THE FIRM

GNCE are Consulting Engineers based in Dublin 2. Established in spring of 2010, service is based on Glenn Nunan's and Terence Sweeney's extensive experience and reputation built over many years in the Construction Industry, offering both Mechanical/ Electrical & Structural/Civil Engineering Services.

Glenn is also a member of the Association of Consulting Forensic Engineers (Engineer Expert Witnesses in Ireland). As such in addition to general practice Glenn has specialised in the area of MEP related Expert Witness & Dispute Resolution Services which have been provided on some high-profile Conciliations, Mediations & Arbitrations in addition to expert reports being provided and expert evidence given under cross examination in the High Court.

ENGINEERING ACTIVITIES

Mechanical and Electrical, HVAC, Civil and Structural, Building Services Expert Witness, Sustainable Energy, Renewable Sources, Expert Witness & Dispute Resolution Advice including Remediation Services.

PROJECT TYPES

Domestic, Residential, Commercial, Retail, Health, Education, Leisure, Agricultural, Industrial.

GORDON WHITE CONSULTING ENGINEERS

1st Floor, 8 Riverwalk, Lake Drive, Citywest Campus, Dublin 24, D24 V50F

T: +353 (0)1 479 6396

E: mail@gwce.ie

W: www.gwce.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Gordon White,** BA, BAI, HDipEnvEng, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

1

ABOUT THE FIRM

Gordon White Consulting Engineers was established in May 2016 and is based in modern offices at Riverwalk Plaza in the heart of Citywest Business Campus. Gordon White is a Chartered Engineer with over 25 years' experience in civil engineering design for residential and commercial developments.

ENGINEERING ACTIVITIES

Civil Engineering Design for Residential and Commercial Developments, Sustainable Drainage (SuDS) Design, Civil Engineering Design for Public Realm, Parks & Sports Pitches, Legal Mapping, Topographic Surveys and Digital Terrain Models, PSDP Services.

PROJECT TYPES

Residential Developments from a single house or extension to developments of many hundreds of houses, Commercial Developments from fit-outs to multi-storey office developments, Parks and Pitches, Legal Maps Declarations of Identity Boundary surveys, Water and Wastewater Treatment Plants.

HANLEY PEPPER

Owenstown House, Fosters Avenue, Blackrock, Co. Dublin. A94 N6D8

T: +353 (0)1 283 2967

E: info@hanleypepper.ie

W: www.hanleypepper.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Joseph Ryan,** BScEng, DipEng, CEng, MIStructE, MIEI, FConsEI
- **Kevin Pepper,** CEng, Eur Ing, MIEI, MIStruct, FConsEI
- **Michael Jackson,** BScEng, DipEng, CEng, MIStructE, MIEI, FConsEI

TOTAL EMPLOYEES

28

ABOUT THE FIRM

Established in 1987 as a specialist consultancy in civil and structural engineering. Hanley Pepper provides service to public and private clients. Projects completed for national and international organisations in Ireland and throughout Europe.

ENGINEERING ACTIVITIES

Structural, Civil, Project Management, Conservation, Project Feasibility Studies, Site Due Diligence Investigations, Sustainability, Legal Representation, Project Supervisor Design Process, Assigned and Ancillary Certification.

PROJECT TYPES

Data Centres, Healthcare, Hotels, Retail, Corporate Office Developments, Housing, Industrial, Sports & Recreation, Educational, Penal, Roads, Drainage, Bridges, Military Defence, Conservation, Masterplanning, Temporary Works Design, Expert Reports, Site Investigations.

HAYES HIGGINS PARTNERSHIP

The Arches, Gas House Lane, Kilkenny. R95 CD79

T: +353 (0)56 7764710

E: info@hhp.ie

W: www.hhp.ie

OFFICES

The Glass House, 11, Coke Lane, Smithfield, Dublin 7. D07 WNP2
T: +353 (0)1 661 2321

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **John Hayes,** BEng, CEng, FIEI, MBA, FConsEI
- **Donal Higgins,** BEng Hons, Ceng, MIEI, FConsEI

TOTAL EMPLOYEES

41

ABOUT THE FIRM

Established in 1980, Hayes Higgins Partnership (2HP) is a multidisciplinary consulting engineering practice, specialising exclusively in Low Energy Building Solutions and infrastructure engineering. 2HP is one of Ireland's leaders in the procurement of Integrated Build Environment Solutions. We have a depth of organisational knowledge through our collective experience, and we can draw upon experience and knowledge of the highest quality and excellence. Using our expertise and innovation, we have worked on a diverse range of projects. Our broad experience as Engineering Consultants has enabled us to develop real expertise in the undertaking of multiple projects concurrently. 2HP is committed to delivering and maintaining an innovative, cost-effective, design-led engineering solution for clients, with a pro-active personal approach. We strive to attain the highest standards of engineering excellence and are at the forefront of innovative design and development techniques. We have a commitment to quality service, underpinned by our accreditation to both Engineers Ireland CPD and IS EN IS0 9001:2015.

ENGINEERING ACTIVITIES

A leading provider of Project Management, Civil & Structural Engineering, Building Services Engineering, Fire Safety Engineering, Environmental Engineering, Transport Engineering, Project Supervisor Design Process (PSDP) and Employers Representative Services.

PROJECT TYPES

Using our expertise and innovation, we have worked on a diverse range of projects including Educational, Healthcare, Commercial, Pharmaceutical, Industrial, Social Housing, Sporting, Conservation, Transport and Roads, Hotels, Custodial, Tourism.

HEAVEY KENNY ASSOCIATES

6 Liosban Business Park, 23E First Floor,
Tuam Road, Galway. H91 E9KN

T: +353 (0)91 566 004 / +353 (0)91 566 004

E: admin@heaveykennyassociates.ie

W: www.heaveykennyassociates.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **John Carr,** CEng, MCIBSE, MIEI, FConsEI

TOTAL EMPLOYEES

4

ABOUT THE FIRM

Founded in 1989, the company provides mechanical and electrical building services design, monitoring and project management to a high level in the private and public sectors.

ENGINEERING ACTIVITIES

Mechanical and Electrical, Heating, Ventilation, Air-Conditioning, Sustainable Energy, Project Management, Cost Control, BER Modelling.

PROJECT TYPES

Hospitals, Colleges, Retail, Hotels, Office Fit Out, Industrial Developments, Schools, Heritage Buildings, Churches.

HENDRICK RYAN + ASSOCIATES

10 Priory Hall, Stillorgan, Co. Dublin. A94 K735

T: +353 (0)1 283 4866

E: info@hra.ie

W: www.hra.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Peter Ryan,** BA, BAI, CEng, FIEI, MIStructE, MICE, FConsEI

TOTAL EMPLOYEES

6

ABOUT THE FIRM

Formerly Brian Hendrick + Associates, which was established in 1988.

ENGINEERING ACTIVITIES

Structural, Civil, Project Management, Conservation, Project Feasibility Studies, Building Assessment and Remediation, Loss Assessing and Loss Adjusting Investigations, Expert Witness, Legal Representation, Project Supervisor Design Process, Assigned and Ancillary Certification.

PROJECT TYPES

Commercial Developments, Housing Developments, Hotels, Site Development, Industrial Buildings, Apartments, Educational & Health, Leisure, Restoration & Refurbishment, Multi-Storey Car Parks, Structural Assessments, Forensic Engineering.

HOMAN O'BRIEN ASSOCIATES

89 Booterstown Avenue, Blackrock,
Co. Dublin. A94 P2C2

T: +353 (0)1 205 6300

E: info@homanobrien.ie

W: www.homanobrien.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Brian Homan,** CEng, BScEng(Hons), DipProjMgt, MIEI, MCIBSE, FConsEI
- **Simon O'Brien,** CEng, BScEng(Hons), MA, Eur Ing, MIEI, MCIBSE, FConsEI
- **Gerard Keating,** C&G, FTC, CEng, FCIBSE, FIHEEM, MIEI, FConsEI

TOTAL EMPLOYEES

28

ABOUT THE FIRM

Homan O'Brien is a leading Irish consulting engineering practice specialising in the design and management of mechanical, electrical and lift services to all building types. The company has grown through 60 years of experience in the building industry by providing a quality professional service to all projects and clients on the domestic and international market. We have an ever expanding and dedicated workforce of highly qualified engineers available to undertake new projects.

Homan O'Brien implement an integrated Quality, Health & Safety and Environmental Management System. Our management systems are registered with NSAI to the following standards;
• ISO 9001:2015 Quality Management System
• ISO 14001:2015 Environmental Management System
• ISO 45001:2018 Occupational H&S Management System
• ISO 19650-2:2018 Building Information Modelling.

We are affiliated to a number of professional bodies including Engineers Ireland, Association of Consulting Engineers of Ireland, Chartered Institution of Building Services Engineers, American Society of Heating, Refrigeration and Air-Conditioning Engineers, Institute of Healthcare Engineers and Estate Managers and the European Federation of National Engineering Associations.

ENGINEERING ACTIVITIES

HVAC, Low Energy Building Design, Building Dynamic Simulation, 3D Building Information Modelling (BIM), BCAR Inspection / Reporting, Vertical Transport Analysis and Design, Building Energy Audits, Expert Witness, Due Diligence.

PROJECT TYPES

Data Centres, Energy Audits, Expert Witness, Due Diligence. Project Education, Hospitals / Healthcare, Offices Developments / Fit Outs, Hotels, Residential, Mixed-use Developments, Commercial, Industrial, Shopping Centres, Historic Refurbishment, Master Planning.

HORGANLYNCH CONSULTING ENGINEERS (HLCE LIMITED)

Tellengana, Blackrock Road, Cork. T12 HP7R

T: +353 (0)21 493 6100

E: info@horganlynch.ie

W: www.horganlynch.ie

OFFICES

The Tara Building, 11-15 Tara Street, Dublin 2. D02 RY83
T: +353 (0)21 493 6100

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Karel Murphy,** BEng, CEng, MIStructE, MIEI, FConsEI
- **Niall Fitzgerald,** BE CEng MIEI, FConsEI

TOTAL EMPLOYEES

20

ABOUT THE FIRM

Established in Cork 1969. Dublin office opened in 1973. HLCE Ltd. has an ISO 9001 Quality Management Certification: 2015.

ENGINEERING ACTIVITIES

Civil, Structural, Project Management.

PROJECT TYPES

Stadia Sports & Recreation, Pharmaceutical Industry, Office Developments, Museums, Conservation, Art Galleries, Education Facilities, Healthcare, Medical Devices, High Density Housing, Site Development, Commercial Mixed Use, Residential.

HUGH MUNRO & CO LTD

Alexandra House, Jetty Road, Dublin Port,
Dublin 1. D01 E9PO

T: +353 (0)1 855 4387

E: admin@hughmunro.ie

W: www.hughmunro.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Ciaran Wallace,** BE, MIE, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

8

ABOUT THE FIRM

Hugh Munro & Co. Ltd is a specialist engineering consultancy, established in 1976, that delivers a wide range of services in the energy, pharmaceutical and waste water sectors. The time we have been working in these sectors has enabled us to build up a vast experience and knowledge of them, and has given us a well-established profile. We use our local knowledge of the Irish market, especially our proximity to and contact with relevant stakeholders, to get things done. At Hugh Munro & Co. Ltd. we develop a personal understanding of our clients' needs and tailor our service delivery to match those requirements.

Hugh Munro & Co. Ltd. has a commitment to quality, environmental management and health and safety in the management and design of projects for which we are awarded:

- Quality Assurance Certificate under I.S. EN ISO 9001:2015 from the National Standards Authority for design and project management from client's brief to final documentation.
- Environmental Management Certificate under I.S. EN ISO 14001:2015 from the National Standards Authority for promoting environmental management throughout our business to continually improve efficiency of our operations.
- Occupational Health & Safety ISO 45001:2018 from the National Standards Authority for providing services which reflect our earnest attention to the provision of design safety, health and welfare.

These certifications acknowledged the formalisation of procedures, which are an integral part of Hugh Munro & Co's commitment to the achievement of excellence and our policy towards quality, safety, health, welfare and environmental management. The maintenance of which is assured not only through regular inspections by the NSAI but also through ongoing in-house audits conducted by Hugh Munro & Co's quality manager.

ENGINEERING ACTIVITIES

Front End Engineering Studies, Planning, Project management, Health & Safety including PSDP and PSCS, Environmental, Process, Mechanical, Tankage, Electrical & Instrumentation, Control & Automation, Civil & Structural, Firefighting, Technical Assistance and Advice, Reports and Assessments including EPD – COMAH – Hazop.

PROJECT TYPES

New and Upgrading Petroleum Depots & Marine Terminals including Loading Facilities and Automation, Tanks including Secondary Containment, Aviation Fuel Depot & Hydrant System, Fire-Fighting Systems at Jetties and Terminals, Bitumen Plants, Pipelines, Turnkey Tank Assessment and Repair, Wastewater Treatment Plant Upgrade.

JAE ENGINEERING LTD

Guinness Enterprise Centre, Taylor's Lane,
Dublin 8. D08 WY02

T: +353 (0)87 257 1800 / +353 (0)86 788 0971

E: jennis@jaeeng.com

W: www.jaeengineering.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Aislinn Tate,** CEng, MIEI, MCIBSE, BScEng (Hons), FConsEI
- **Joseph Ennis,** CEng, FCIBSE, FIEI, FConsEI

TOTAL EMPLOYEES

2

ABOUT THE FIRM

JAE Engineering Ltd. is a specialist consulting engineering practice offering unique engineering solutions to the construction, manufacturing industry and energy sector. The company was formed early in 2012 and has established a reputation relating to specialist engineering solutions for building design and building services. The practice has been set up as a specialist engineering enterprise by Joseph Ennis and Aislinn Tate designed to provide strategic advice to clients. It is a solution-driven company, who strive to achieve its clients' goals with integrity through a knowledge of engineering and construction.

ENGINEERING ACTIVITIES

Building Services Strategic Design, Due Diligence/Building Surveys, Value Engineering, Peer Reviews of Building Services Documentation, Client Liaison to design and construction teams, LEED, BREEAM & WELL Engineering Expertise and assistance in the road mapping to certification, Energy and Sustainability, Building Services Insurance Claims Advice, Technical Advisor for clients, Dispute Resolution-Engineering Systems, Project Audits, Building Services Design Services.

PROJECT TYPES

Commercial, Industrial & Process, Business & Retail, Power and Energy Projects, Health & Laboratories.

JENNINGS O'DONOVAN & PARTNERS LTD

Head Office: Finisklin Business Park, Sligo. F91 RHH9

T: +353 (0)71 916 1416

E: info@jodireland.com

W: www.jodireland.com

OFFICES

Dublin

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **David Kiely,** BE, MSc, FIEI, CEng, MICE, Eur Ing, FConsEI
- **Joseph Healy,** BEng, DipWEng, CEng, Eur Ing, FIEI, TechIOSH, FConsEI
- **Audrey Phelan,** BE, MEngSc, CEng, FConsEI
- **John McElvaney,** BSc (Eng), DipStructEng, PG Dip PM, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

65

ABOUT THE FIRM

Established in 1950, the business focus areas of the company are Ireland, UK and the EU pre-accession countries. The company is ISO 9001, ISO 14001 and ISO 45001 accredited and certified as an accredited employer by Engineers Ireland for the CPD Programme. Since 1st August 2023, the Company is part of the RSK Group.

ENGINEERING ACTIVITIES

Civil, Structural, Commercial Development, Environmental, Water Supply, Renewable Energy, Pollution Control, Traffic, Wastewater, Project Management, Architectural, Road Design, Health & Safety, Environmental Impact Statements, Planning Applications/ Planning Compliance, Assigned Certifier, Project Supervisor Design Process.

PROJECT TYPES

(Water Sector) – Water Supply Schemes, Sewerage Schemes, Drainage Schemes, Flood Risk Assessments. (Civil & Structural Design) – Industrial, Education, Commercial, Health Sector, Hotel & Leisure, Housing. (Renewables) – Renewables Planning, Renewables Construction, Wind Energy, Solar Energy, Battery Storage, Hydrogen. (Leisure and Tourism) – Leisure Amenities, Greenways, Blueways, Active Travel, Road Design, Sports Facilities.

J.J. CAMPBELL & ASSOCIATES

Unit F1 Nutgrove Office Park, Rathfarnham,
Dublin 14. D14 A895

T: +353 (0)1 298 0538

E: info@jjc.ie

W: www.jjc.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **John J. Campbell,** BE, CEng, MIEI, PEng Canada, FConsEI

TOTAL EMPLOYEES

9

ABOUT THE FIRM

J.J. Campbell & Associates was established in 1995. The range of experience within the firm ensures that innovative yet cost effective solutions are provided to meet client's individual requirements.

ENGINEERING ACTIVITIES

Civil and Structural Engineering, Conservation and Renovation of Historic Structures, BIM.

PROJECT TYPES

Hotels, Shopping Centres, Office Developments, Residential Developments, Conservation/ Building Restoration, Industrial Buildings, Public, Roads.

JODA ENGINEERING CONSULTANTS

Ballycurreen House, Ballycurreen, Cork, T12 P4AY

T: +353 (0)21 454 4244

E: engineers@joda.ie

W: www.joda.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Jerome O'Donovan,** BE, CEng, MEngSc, MIEI, MICE, MIStructE, FConsEI
- **Paul Murphy,** BE, MSc, CEng, MIEI, MIStructE, HDipMM, FConsEI

TOTAL EMPLOYEES

16

ABOUT THE FIRM

JODA Engineering Consultants is a multidisciplinary practice providing engineering consultancy services related to buildings and structures, site development and infrastructure services.

The practice was established in 1961 and initially provided civil/ structural consultancy. In 1972 the firm included mechanical and electrical building services and later expanded to include project management for industrial and other projects. The practice became a limited company in 1995.

ENGINEERING ACTIVITIES

Civil, Structural, Mechanical, Electrical, Project Management, Geotechnical.

PROJECT TYPES

Industrial Projects, Office Developments, Retail Developments, Hospitals, Hotels, Educational Buildings, Institutional Buildings, Bridges, Road Structures, Marine Structures, Residential Developments, Leisure Projects, Remedial Works, Fire Damage and Flood Damage Assessment and Remediation.

J.V. TIERNEY & COMPANY LTD

The Tannery, 53-56 Cork Street, Dublin 8. D08 P92R
T: +353 (0)1 421 4900
E: mail@jvtierney.ie
W: www.jvtierney.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Joe Lee,** DipEng, CEng, FCIBSE MIEI, MASHRAE, FConsEI
- **Stephen Walsh,** CEng, BEngTech, MIEI, FIHEEM, FConsEI
- **Colm Saul**, CEng, B.Sc Building Services Eng, Dip BS Eng, FConsEI
- **Andrew Clifford**, CEng, CIBSE Affiliate, B.Sc BS Eng, FConsEI
- **Rory Burke**, BE, CEng, FConsEI

TOTAL EMPLOYEES

41

ABOUT THE FIRM

J.V. Tierney & Co. was established in 1948 and is the market leader in consulting engineering design in the field of mechanical, electrical and sustainable engineering in the built environment. Our specialist subsidiary, JVTE, offers environmental and sustainable design solutions, daylight/sunlight analysis, net zero carbon solutions and energy efficient design (EED) analysis. We are certified Home Performance Index (HPI) Assessors, Building Energy Rating (BER) Assessors and accredited BREEAM Assessors and LEED Commissioning Agents (CxA) with a number of our projects achieving the international environmental standards of BREEAM 'Excellent' and LEED 'Platinum' accreditation. The company has become synonymous with the highest quality design concepts and is accredited to the following NSAI Management Systems – I.S. EN ISO 9001-2015 Quality Standard, I.S. EN 14001:2015 Environmental Standard and OHSAS 45001:2018 Occupational Health and Safety Standard.

ENGINEERING ACTIVITIES

Mechanical & Electrical and Sustainable Engineering Design, Daylight/Sunlight Analysis, Net Zero Carbon Solutions, Energy Efficient Design (EED) Analysis, Comfort Analysis / Natural Ventilation with Computer Modelling, BREEAM Assessors, BER Assessors, Home Performance Index (HPI) Assessors, LEED Assessors, Heating / Ventilating and Air-Conditioning, Medical Gas Design, Environmental, Project Management, Fire & Security Engineering, ICT & Communication Systems, Vertical Transportation Engineering, Services Cost Control, 3D Building Information Modelling (BIM), BCAR Inspection / Reporting.

PROJECT TYPES

Educational Buildings, Hospitals / Healthcare Buildings, Offices / Commercial / Light Industrial, Residential, Hotels & Leisure, Retail, Exhibition Spaces, Sports Stadia Facilities, Institutions / Secure Centres, Courtroom Facilities, Protected Structures / Historical Buildings.

JWHA

2-4 Merville Road, Stillorgan, Co. Dublin. A94 E3F8
T: +353 (0)1 212 1813 / 212 1816 / 212 1817
E: info@jwha.ie
W: www.jwha.ie

OFFICES

4 Sommerville, Reeves Wood, Douglas, Cork. T12 N903
T: +353 (0)21 429 3160

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Joseph W. Hogan,** CEng, FCIBSE, MIEI, MASHRAE, MIPM, ACIArbI, FConsEI

TOTAL EMPLOYEES

3

ABOUT THE FIRM

J.W.H.A. Consulting Engineers offers complete design and project construction management in the field of project management, procurement, structural and mechanical and electrical services. The practice has been in existence since 1980 and has completed numerous prestigious projects. Working from offices in Dublin and Cork, we serve a large base in all client sectors. The practice is Quality Assured to ISO 9001.

ENGINEERING ACTIVITIES

Building Services, Project Management, Mechanical, Electrical, Structural, Civil, BER, Pollution Control, Noise Assessment, Insurance Claims, Legal Reports, Personal Injuries Investigations, Mediation, Expert Witness, Loss Assessment,Traffic Accidents, Information Technology, Lighting Levels, Electronic, Energy and Power, Energy Audits, Health and Safety, Project Supervisor Design Process (PSDP).

PROJECT TYPES

Business & Retail Units, Commercial Development, Churches/ Cathedrals, Hospitals/Healthcare, Industrial Developments, Leisure Developments, Residential Developments, Educational, Office developments, Heritage, Hotels, Nursing Homes.

KAVANAGH MANSFIELD & PARTNERS

Sommerville, Dundrum Road, Dundrum, Dublin.
D14 WF24

T: +353 (0)1 660 6966

E: kmp@kmp.ie

W: www.kmp.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **James Mansfield,** CEng, BE, FIEI, MIStructE. FConsEI
- **Niall Clarke,** BSc, DipEng, CEng, MIEI, MIStructE, FConsEI

TOTAL EMPLOYEES

12

ABOUT THE FIRM

Kavanagh Mansfield & Partners has a broad base of experience providing completely independent structural and civil engineering professional advice to public sector and private sector clients. The practice has evolved over the last 30 years and is highly committed to working towards design excellence allied to cost effectiveness. Kavanagh Mansfield & Partners has been involved closely in the development of standards for the industry in fields such as code development and health and safety regulations. Kavanagh Mansfield & Partners is the trading name of Piconsult Ltd.

ENGINEERING ACTIVITIES

Civil and Structural.

PROJECT TYPES

Factories & Warehousing, Hospitals & Health Care, Sports Complex, Artificial Playing Surfaces, Office Developments, Schools & Colleges, Housing & Apartments, Estate Development, Building Restoration, Protected & Heritage Structures, Telecommunication Buildings, Legal Work, Pyrite Inspections, Research and Development.

KILGALLEN & PARTNERS CONSULTING ENGINEERS LTD

Kylekiproe, Well Road, Portlaoise, Co. Laois.
R32 P 668

T: +353 (0)57 866 2860

E: info@kilgallen.ie

W: www.kilgallen.ie

OFFICES

Unit 3, Danville Business Park, Kilkenny. R95 VH33
T: +353 (0)56 770 1090

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Morgan Kilgallen,** BE, CEng, Eur Ing, Dip. Highway & Geotechnical Engineering, Dip. Arbitration Law, FCIArb, FIEI, FConsEI
- **Niall O'Callaghan**, BSc(Eng), DipEng, CEng, Dip Proj Man, MIEI, FConsEI

TOTAL EMPLOYEES

17

ABOUT THE FIRM

Founded in 1998, Kilgallen and Partners specialise in the design and management of building and civil engineering projects including road schemes, flood relief schemes, renewable energy projects and buildings for the commercial, retail, educational, residential, pharmaceutical and manufacturing markets. Our clients are drawn from across the public and private sectors. The company is CPD accredited by Engineers Ireland and is ISO 9001 accredited by NSAI. Operating out of offices based in Portlaoise and Kilkenny, we have a proven and established track record of successful delivery from concept stage through to project handover.

ENGINEERING ACTIVITIES

Civil, Structural, Roads, Traffic Impact Assessments and Mobility Plans, Design of Temporary Traffic Management Systems, Flood Studies & Flood Risk Assessments, Assigned Certifier, Project Supervisor Design Process (PSDP), Geotechnical Engineering, Planning, Site Development, Building Assessment and Refurbishment.

PROJECT TYPES

Public Sector (Roads & Associated Infrastructure), Active Travel, Education, Drainage, Flood Risk Assessments, Flood Mitigation), Design & Build Projects, Temporary Works, Renewable Energy, Pharmaceutical, Manufacturing, Residential, Commercial, Industrial, Office, Leisure, Heritage, Conservation & Refurbishment, Industrial and Business Parks, Transport Depots.

KILLIAN CONSULTING ENGINEERS

Brideswell Street, Dublin Road, Athlone,
Co. Westmeath. N37 T223

T: +353 (0)90647 7261

E: info@jkillian.ie

W: www.jkillian.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **John Killian,** BE, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

3

ABOUT THE FIRM

Killian Consulting Engineers was established in 2001. The company provides structural and civil engineering services to a wide range of clients throughout Ireland. The firm delivers design, project management and construction supervision services to a range of clients in the industrial, commercial and residential sectors.

ENGINEERING ACTIVITIES

Civil, Structural, Project Management, Assigner Certifier, Project Supervisor Design Process.

PROJECT TYPES

Industrial, Commercial, Medical Devices, Residential.

LANGAN CONSULTING ENGINEERS

Leeson Enterprise Centre, Altamont Street, Westport,
Co. Mayo. F28 ET85

T: +353 (0)98 68961

E: info@langaneng.ie

W: www.langaneng.ie

OFFICES

Galway Technology Centre, Mervue Business Park, Mervue,
Galway. H91 D932
T: +353 (0)91 396 335

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **James Langan,** BE, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

10

ABOUT THE FIRM

Langan Consulting Engineers (LCE) is a specialist civil, structural and marine design consultancy. We have a proven track record in the delivery of civil infrastructure, marine, energy projects in Ireland and the UK. We provide efficient, effective and pragmatic engineering design solutions.

ENGINEERING ACTIVITIES

Structural, Civil, Marine & Coastal, Hydrological/ Hydrogeological, Flood Risk Assessment, Drainage and Water Services, Geotechnical, BIM, Contractor Design including Temporary Works Design and Design Checking/Verification.

PROJECT TYPES

Marine (Ports, Harbours & Coastal), Energy (Oil & Gas, Renewables), Flood Management and Alleviation, Onshore Pipelines, Subsea Pipelines and Marine Outfalls, Drainage Works, Roads, Residential and Commercial Developments, Transport, Education, Healthcare, Aviation.

LAWLER CONSULTING

7 Patrick Street, Kilkenny. R95 HT9T

T: +353 (0)56 772 1115

E: info@lawlerconsulting.com

W: www.lawlerconsulting.com

OFFICES

50-56 Merrion Road, Dublin. D04 V4K3
T: +353 (0)1 639 2948

Acorn Business Centre, Blackrock, Cork. T12 K7CV
T: +353 (0)21 461 4265

Morrell Business Centre, 98 Curtain Road, London EC2A 3AF
T: +44 (0)207 9797704

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Daniel Ring,** BEng(Hons), CEng, MIEI, Low Carbon Assessor, FConsEI

TOTAL EMPLOYEES

40

ABOUT THE FIRM

Lawler Consulting was established in 1980 by Noel Lawler. Over the last 45 years the company has established itself as a highly respected M&E building services consultancy with a wealth of expertise across a broad range of sectors and clients with over 6,000 commissions to date.

ENGINEERING ACTIVITIES

Engineering Design, Mechanical, Electrical, Building Services, Building Refurbishment, Conservation Safety, Fire Safety, Health & Safety, Project Supervisor Design Process (PSDP) Project Management, Feasibility Studies, Energy Audits, Energy Management, Planning, Assigned Certifier, Insurance Claims & Investigations, Low Carbon Consultants, Building Services Software (BIM, IES, CAD etc.).

PROJECT TYPES

Commercial Developments including Retail and Office Complexes, Industrial and Manufacturing Developments, Hotel, Leisure and Sports Complexes, Schools, Hospitals, Religious Buildings, Assigned Certifier, Residential Developments including Multi-Storey Apartments, Healthcare, Pharmaceutical, Education and Training.

LED (LYNCH ENGINEERING DESIGN)

22 French Furze Grove, Kildare Town,
Co. Kildare. R51 R993

T: +353 (0)86 806 5273

E: david@lynchengineeringdesign.com

W: www.lynchengineeringdesign.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **David Lynch,** BSc(Eng), DipEng, CEng, PGradDip(Fire Safety), FConsEI

TOTAL EMPLOYEES

2

ABOUT THE FIRM

LED was established in 2013 by David Lynch, following two years site and 14 years design experience.

ENGINEERING ACTIVITIES

Civil & Structural.

PROJECT TYPES

Residential, Commercial, Retail, Local Authority, Insurance, Legal.

MALACHI CULLEN CONSULTING ENGINEERS LTD

8 Centre Court, Blyry Business & Commercial Park, Athlone, Co. Westmeath N37 A710

T: +353 (0)90 642 0364

E: info@mcullen.ie

W: www.mcullen.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Pádraic Keena,** BA, BAI, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

6

ABOUT THE FIRM

Malachi Cullen and Partners was formed in 1986 from the well-established branch office of Stanislaus Kenny and Partners, Athlone, founded by Malachi Cullen in 1971. Having merged with the international, multi-disciplinary consultancy White Young Green in 2007, the company was subsequently re-established as an independent entity in 2010 under the new name of Malachi Cullen Consulting Engineers Ltd (MCCE). MCCE continues this long tradition of providing professional civil and structural engineering and project management services in the midlands and throughout the country.

ENGINEERING ACTIVITIES

Civil, Structural, Environmental, Project Management, Health and Safety, Project Supervisor Design Process (PSDP), Planning Permissions, Fire Safety Certificates, Disability Access Certificates.

PROJECT TYPES

Industrial and Commercial Developments, Educational – Primary / Secondary / Third Level Institutions, Medical / Primary Care, Residential Developments, Hotel and Leisure Facilities, Golf Clubs, Churches, Libraries, Public Amenities, Site Development Works, Refurbishments, Remedial Works, Conservation, Temporary Works Design, Conditional Surveys, Fire Safety Engineering.

MALACHY WALSH AND PARTNERS (MWP)

Park House, Mahon Technology Park, Bessboro Road, Blackrock, Cork, T12 X251

T: +353 (0)21 453 6400

E: info@mwp.ie

W: www.mwp.ie

OFFICES

Blennerville, Tralee, Co Kerry, V92 X2TK
T: +353 (0)66 712 3404

The Elm Suite, Loughmore Centre, Raheen Business Park, Limerick, V94 R578
T: +353 (0)61 480 164

2 Exchange Tower, 1-2 Harbour Exchange Square, London, E14 9GE, UK.
T: +44 (0)20 7253 0893

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Peter Fay,** BSc(Eng), Dip Struct Eng, C Eng, MIEI, MIStructE, FConsEI

TOTAL EMPLOYEES

210

ABOUT THE FIRM

The practice is a multi-disciplinary, diversified engineering and environmental consultancy and was founded in 1967. It has expertise in civil, structural, mechanical and electrical engineering, environmental and waste management engineering.

ENGINEERING ACTIVITIES

Building Structures: Civil Engineering Works, Roads, New Bridges and Assessment of existing, Rehabilitation Work to existing structures, Commercial. Industrial projects: Pharmaceutical, Harbour and Coastal Works; Housing/Apartments; Water Services; Fire Engineering; Transportation, Building Services – Mechanical & Electrical; Renewable Energy, EIA/EIS, SEA; Planning Policy & Legislation.

PROJECT TYPES

Pharmaceutical, Healthcare, Airport, Commercial, Bridges, Roads, Industrial, Waste Management, Wind Farms and Pumped Energy Storage, Sewerage Schemes, Schools/Colleges, Water Services, Sports Facilities, Transportation, Conservation.

MALONE GROUP

Plaza 255, Blanchardstown Corporate Park,
Ballycoolin, Dublin. D15 A4TP

T: +353 (0)1 866 5890

E: fergus.whelan@malonegroup.com

W: www.malonegroup.com

OFFICES

CIDO Innovation Centre Charlestown Road Craigavon, Armagh. BT63 5PP
T: +44 28 3814 0026

Skyline Court, Third Avenue Centrum 100 Burton-on-Trent, GB. DE14 2BZ
T: +44 1283 688083

120 East Beaver Creek Road, Suite 202B, Richmond Hill, ON, Canada. L4B 4V1
T: +44 1289 635 2442

445 Broad Hollow Road Suite CL 25 Melville NY, USA. 11747
T: +44 1631 629 5050

14 Antim I Street, Sofia, Bulgaria. 1303
T: +359 2 491 7877

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Fergus Whelan**, BA.BAI, MSc, MBA, CEng, FIEI, FConsEI

TOTAL EMPLOYEES

30

ABOUT THE FIRM

Established in 1999 Malone Group works with leading international brands to design, manage and deliver high value, business critical projects.

We have the management, technical, safety and operational expertise to derive value for your business and protect your operations by ensuring projects are delivered safely and efficiently.

From locations in Ireland, the UK, Canada and Bulgaria we have the capabilities to provide project lifecycle support for capital investments and operational initiatives.

ENGINEERING ACTIVITIES

Mechanical Design, Electrical Design, Process Design, Project Safety, Project Management, Control & Automation, Digital Transformation, Master Planning.

PROJECT TYPES

Owner's Engineer, Full Lifecycle Management, Managed Service Model, Project Support Office, Masterplanning, Business Case Development, Implementation Scenarios, Sustainability Roadmaps, Front End & Detailed Design, Building Services & Utilities, Electrical & Instrumentation, Process & Packaging, Data Acquisition & Analytics, AI & Vision & Robotics, Intelligent Buildings, Smart Factory Roadmap, Project & Process Safety, Machinery Safety, Safety in Design, HAZOP, Obsolescence, Process Control & SCADA, System Integration, System Qualification & Security.

MALONE O'REGAN

2B Richview Office Pk, Clonskeagh,
Dublin 14, D14 XT57

T: +353 (0)1 260 2655

E: info@morce.ie

W: www.maloneoregan.ie

OFFICES

3-4 Canada Street, Waterford, X91 V52K
T: +353 (0)51 876 855

Hitech House, Unit 18 Claregalway Corporate Park, Claregalway, Galway, H91 KFX3
T: +353 (0)91 531 069

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Eimear Sharkey,** BE CEng MIEI, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEER

- **Corwun O'Brien,** BE, MSc Eng, CEng, RConsEI

TOTAL EMPLOYEES

45

ABOUT THE FIRM

The firm was founded in 1978 and established its environmental services division in 1991. It established its UK office in 2012. Originally recognised for its expertise in the design, procurement and management of projects in the dairy, food and manufacturing sectors, the firm has expanded its range of services to include marine structures, building structures and specialist production / manufacturing projects. Since 1999 it has been providing services in the area of transportation and roads infrastructure. With offices in Dublin, Galway and Waterford the firm provides clients with nationwide coverage within easy reach of a local base.

ENGINEERING ACTIVITIES

Civil & Structural, Environmental, Health & Safety, Manufacturing, Marine, Mechanical & Electrical, Project Management, Roads & Bridges.

PROJECT TYPES

Commercial & Retail, Education, Food & Beverage Processing, Healthcare, Industrial Development, Legal & Forensic, Manufacturing, Mining & Mineral Extraction, Pharmaceutical, Ports & Harbours, Sports & Leisure, Roads & Bridges, Site Remediation.

McCRAE CONSULTING ENGINEERS LTD (MCE)

Rear 6B Arbourfield Terrace, Dundrum Business Park, Dublin 14. D14 F5C6

T: +353 (0)1 296 2596

E: info@mceeng.ie

W: www.mceeng.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Norman Irvine**, BEng, CEng, PgDip H&S, FConsEI

TOTAL EMPLOYEES

7

ABOUT THE FIRM

McCrae Consulting Engineers specialise in fire, civil and structural engineering. Having undertaken many new build projects, we are also experts in refurbishment and conservation work. We are currently active in the residential, commercial, industrial, leisure, health care and education sectors.

We have developed an extensive repeat client base of both public and private clients. We believe work should be completed on time and within budget and that this is the key to developing long term client relationships.

PRACTICE HISTORY

McCrae Consulting Engineers was founded in 2011 by Richard McCrae following 13 years working for the well-known and long-standing Lee McCullough Consulting Engineers, specialists in fire, civil and structural engineering. In mid 2020, the practice merged with LMC Consulting Engineers. LMC Consulting Engineers was formed by Frank Lee, Gerry McCabe and Norman Irvine, some of the former directors and associates of Lee McCullough, in 2012. Following the retirement of Frank and Gerry, Richard and Norman decided it was an opportune time to join forces. McCrae Consulting Engineers now incorporates LMC Consulting Engineers.

This merger has allowed the combined companies to provide an enhanced service to all our clients through an increase in scale while still maintaining the core values of both companies and providing clients with direct access to senior staff, something which is often lacking in other practices.

ENGINEERING ACTIVITIES

Civil & Structural, Conservation, Fire Safety, Assigned Certifier, PSDP, Access Consultancy.

PROJECT TYPES

Fire Safety, Residential Developments (Housing & Apartments), Commercial Developments, Conservation/Restoration, Educational, Industrial Developments, Healthcare, Leisure Facilities, Assigned Certifier, Modular Buildings.

McELROY ASSOCIATES

69 Lower Leeson Street, Dublin 2. D02 YP04

T: +353 (0)1 660 9000

E: info@mea.ie

W: www.mea.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Ray Curran,** BSc(Eng), NCEA Dip. Eng, MSc, MA, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

16

ABOUT THE FIRM

Established over 25 years ago, McElroy Associates is a multi-discipline consulting engineering practice. The firm delivers design, project management and construction supervision services to a range of international and domestic clients, primarily in the industrial sector and across a range of pharmaceutical, healthcare, process and food industry projects.

ENGINEERING ACTIVITIES

Civil, Structural, Mechanical, Electrical, Fire, Building Services, Project Management, Assigned Certifier, Project Supervisor Design Process.

PROJECT TYPES

Pharmaceutical, Biopharma, Medical Devices, Industrial, Healthcare, Commercial, Third level.

METEC CONSULTING ENGINEERS

La Vallee House, Upper Dargle Road, Bray,
Co. Wicklow. A98 W2H9

T: +353 (0)1 204 0005

E: info@metec.ie

W: www.metec.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Bernard Denver,** MSc, BSc(Hons)Eng, DipEng, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

55

ABOUT THE FIRM

Metec's clients are industry leaders and innovators that are involved in fit-outs and construction projects – from commercial to residential. We place great value on operational excellence and innovation. Our highly qualified and experienced team of mechanical and electrical engineers provide an end-to-end solution that encapsulates good design, innovative thinking, and a keen focus on sustainability, energy saving and building performance. Our engineers work with our LEED and WELL APs and building performance modellers in an ecosystem where information is easily accessed, shared and updated, where collaboration is continual, and where sustainability goals underpin the design.

The Metec team of engineers collectively bring over 500 years' experience to our clients' projects and their experience comprises mixed-use commercial and residential developments across a wide range of engineering fields. Our values are aligned with those of our clients which uniquely qualifies us to successfully deliver their project goals.

ENGINEERING ACTIVITIES

Mechanical and Electrical, Sustainable/Energy Engineers, LEED AP, WELL AP, Energy Modelling.

PROJECT TYPES

Data Centres, Commercial, Retail, Pharmaceutical, Education, Sports and Leisure, Energy Audits, Health Care, Religious, Residential, Prisons.

MHL & ASSOCIATES LTD

Carraig Mor House, 10 High Street, Douglas Road,
Cork. T12 KC66

T: +353 (0)21 484 0214

E: info@mhl.ie

W: www.mhl.ie

OFFICES

88 Wood Street, London, EC2V 7RS, United Kingdom
T: +44 (0)20 72530893

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Ken Manley,** BE, CEng, MIEI, HdipEnvmn.Eng, FConsEI
- **Brian Murphy,** BE, CEng, MIEI, FConsEI
- **Brian Loughrey,** BE, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

13

ABOUT THE FIRM

The company was established in 1999 and has gained a reputation in the field of transportation engineering, local authority infrastructural design and the provision of civil engineering services for residential and commercial developments.

ENGINEERING ACTIVITIES

Civil, Transportation, Traffic modelling, Major Roads Infrastructural Works.

PROJECT TYPES

Business Parks, Traffic Impact Studies, Road Safety Assessments, Traffic & Transportation Plans, Commercial Developments.

MICHAEL SLATTERY ASSOCIATES

19 Windsor Place, Lr Pembroke St.
Dublin 2. D02 XH36

T: +353 (0)1 676 5713

E: dublin@msa.ie

W. www.msa.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Michael Slattery,** BE, MSc(Fire Eng), CEng, FIEI, MSFPE, Eur Ing, FConsEI

TOTAL EMPLOYEES

25

ABOUT THE FIRM

Founded in 1988.

ENGINEERING ACTIVITIES

Fire Safety Engineering, Event Safety Management, Occupational Health and Safety, Fire Safety Management.

PROJECT TYPES

Stadia, Hospitals, Universities/Schools/Colleges, Shopping Centres, Industrial Buildings, Apartment Developments & Hotels, Offices/Financial Services, Major Public Assembly Events/ Venues, Research Projects.

MMA CONSULTING ENGINEERS LTD

Unit 4E Fingal Bay Business Park, Balbriggan,
Co. Dublin. K32 HN82

T: +353 (0)1 690 5040

E: info@mma.ie

W. www.mma.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Dermot Doran,** HDipEng - Building Services Engineering BEng Hons. - Building Services Engineering CEng. - Engineers Ireland LEED AP, FConsEI

TOTAL EMPLOYEES

30

ABOUT THE FIRM

Established in 1968, the MacArdle McSweeney Design practice is now part of the Headcount Group, one of Ireland's leading outsourced engineering solutions providers. MMA Consulting Engineers continues the tradition of delivering high quality mechanical and electrical building services designs for the commercial, residential, healthcare, leisure and industrial sectors. MMA also has a comprehensive process design capability.

This high-tech alliance has allowed us to modernise our design practices and we have developed industry leading 3D BIM M&E design workflows that increase design team productivity, enhance deliverable quality and significantly reduce design costs.

ENGINEERING ACTIVITIES

Mechanical and Electrical Building Services, Environmental and Sustainable Solutions, Building Refurbishment, Feasibility Studies, Due Diligence, Energy Modelling, Lighting, Sun and Shadow Modelling, Material and Personnel Flow Studies, LEED & BER Certified. Industrial Process Design, 3D Laser Scanning and Scan to BIM Validation.

PROJECT TYPES

Microelectronics and Semiconductor Facilities. Biotek, Medical Device, Pharmaceutical, Commercial, Industrial, High-Tech, Healthcare, Education, Residential.

MOLONEY FOX CONSULTING LTD

46 O'Connell Street, Limerick. V94 8D88

T: +353 (0) 86 607146

E: info@mfconsulting.ie

W: www.moloneyfoxconsulting.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Matt Fox,** CEng, BEng, MIEI, MCIBSE, FConsEI

TOTAL EMPLOYEES

12

ABOUT THE FIRM

Established in 2011 Moloney Fox Consulting are one of the Leading Building Services Consultants in the Mid-West Region of Ireland.

Moloney Fox Consulting Continues to provide advanced design solutions and expertise in all areas of Building Services Engineering.

Our core activities are the design of high quality / efficient Mechanical and Electrical Services system solutions for a wide range of building types.

The company has a wealth of experience across a broad range of sectors and clients.

Our philosophy for projects is to work harmoniously with the Client and the Design & Construction Teams to ensure a successfully completed project, on time, within budget and in compliance with the Client's requirements.

ENGINEERING ACTIVITIES

Mechanical and Electrical Building Services Design. Energy Efficient and Sustainable Design. Feasibility studies, Condition Surveys, Energy Modelling. Domestic and Commercial BERs. Lighting Designs.

PROJECT TYPES

Commercial, Office, Retail, Sports and Leisure, Educational, Industrial, Health Care, Residential including Multi-Storey Apartment, Warehousing, Conservation, Religious, Listed Buildings.

MOLONY & MILLAR

Riverbank House, Ballyboden Road, Rathfarnham, Dublin 14. D14 W2V1

T: +353 (0)1 493 0211 / +353 (0)1 493 0215

E: info@molonymillar.ie

W: www.molonymillar.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Raymond D. Goggin,** BE, CEng, MIEI, Eur Ing, FConsEI

TOTAL EMPLOYEES

12

ABOUT THE FIRM

The partnership was formed in 1969 from the previously established practice of Sir Hugh F. Molony.

Molony Millar is a long-established practice in existence for over 56 years. Our extensive experience in civil and structural engineering is bolstered by our application of all the latest technologies and software which results in a firm that is dynamic, innovative and solution driven. We have successfully delivered multiple projects in the following sectors:
Healthcare, Commercial, Airports, Housing, Apartments and Infrastructure.

ENGINEERING ACTIVITIES

Civil, Structural, Environmental.

PROJECT TYPES

Airports, Education, Hospital, Industrial, Roads, Town Centres, Water, Waste Treatment, Landfill, Recreational, Office Development, Domestic, Private Dwellings.

MOTT MacDONALD IRELAND

South Block, Rockfield, Dundrum,
Dublin 16. D16 R6VO

T: +353 (0)1 291 6700

E: engineers.dublin@mottmac.com

W: www.mottmac.ie

OFFICES

5 Eastgate Avenue, Little Island, Co. Cork. T45 EE72
T: +353 (0)21 480 9800

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Barry Williams**, BE Civil (Hons), MEngSc, CEng, MIEI, FConsEI (Managing Director)
- **Gemma McCarthy,** BEng, CDipAF, CEng, FConsEI

TOTAL EMPLOYEES

165

ABOUT THE FIRM

Mott MacDonald Ireland has been operational in Ireland for over 55 years, developing the business into a multi-disciplinary operation. With over 165 staff operating in Dublin and Cork, we bring our customers a total project delivery capacity across all sectors. Mott MacDonald Ireland is part of the global Mott MacDonald Group which is entirely 'employee owned'. The total group staff is over 18,000 in 180 offices worldwide.

ENGINEERING ACTIVITIES

Civil, Structural, Transportation, Water and Wastewater, Power Generation, Power Transmission & Distribution, Environmental, Marine, Highways, Railways, Light Rail, Railway Systems, Traffic, Geotechnical, Mechanical and Electrical Building Services, Mining and Mineral Extraction, Oil and Gas, Value Engineering, Net Zero, Quantity Surveying. Telecommunications, Waste Disposal, Water, Pollution Control and Project Management.

MRG CONSULTING ENGINEERS LIMITED

4 Day Place, Tralee, Kerry. V92 AW26

T: +353 (0)66 712 3130

E: info@mrg.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Tadhg McGillicuddy,** BE, MEngSc, CEng, FIEI, FConsEI

TOTAL EMPLOYEES

13

ABOUT THE FIRM

Formerly Malone O'Regan McGillicuddy, the firm was established in 1980 in Tralee. Today it has offices in Tralee and Cork with a long-serving experienced team. Both offices are equipped with state-of-the-art engineering design and draughting software and technology and online library facilities. The practice offers a comprehensive civil and structural engineering consultancy service and has been involved in the successful design and completion of a wide range of projects across all sectors of the industry.

ENGINEERING ACTIVITIES

Civil, Structural, Project Management.

PROJECT TYPES

Office Buildings, Bank/Retail Developments, Civil Buildings, Hospitals, Healthcare Facilities, Schools and Colleges, Industrial Development, Pharmaceutical, Sports & Leisure, Roads & Bridges, Residential Developments, Windfarm Developments.

MTW CONSULTANTS LTD

Unit 4, MTW House, Broomfield Business Park,
Malahide, Co Dublin. K36 F434

T: +353 (0)1 846 3505

E: info@mtw.ie

W: www.mtw.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Tom Markham,** BE, CEng, MIEI, FConsEI
- **Glen Faherty**, BSc(Eng), Dip Eng, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

8

ABOUT THE FIRM

Tom, Kevin & Bryan all graduated from the Engineering School of UCD in the mid '70s and came together in September 2000 to offer an engineering practice based on the north side of Dublin. We draw on a wealth of experience both nationally and internationally to offer a comprehensive and tailored service to clients.

ENGINEERING ACTIVITIES

Civil, Structural, Fire, Project Management.

PROJECT TYPES

Student Accommodation, Hotels, Industrial Development, Commercial Development, Housing Development, Apartment Complex, Listed Buildings, Artificial Playing Surfaces, Services to the Health Industry from Hospital to residentials.

MUIR ASSOCIATES LTD

Marketing Network House, Argyle Square,
Morehampton Road, D04 K0Y1

T: +353 (0)1 676 2788

E: info@muir.ie

W: www.muir.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Rafid Ajina**, BSc, MEngSc, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

20

ABOUT THE FIRM

Founded in 1952 and carried out projects in Ireland and over 20 African, European and Middle East Countries. Muir Associates Limited is a civil and structural engineering and project management consultancy practice that works in partnership with clients to provide key advice and to deliver on their ambitions.

We have a technically competent team of experienced personnel with a broad range of expertise to deliver technical excellence on projects regardless of project size.

ENGINEERING ACTIVITIES

Civil, Structural, Project Management, Environmental, Marine, Traffic and Transportation, Process & Manufacturing.

PROJECT TYPES

Hotels, Aviation, Industrial, Hydraulic Structures/Water Supply, Sports & Leisure, LPG Storage, Marine, Roads, Bridges, Education, Services Planning, Transport, Masterplanning, Urban Regeneration, Public Works, Sugar Industry, Environment, Residential, Retail, Conservation, Commercial, Light Rail, Health & Safety, Building Control.

NICHOLAS O'DWYER LTD

Nutgrove Office Park, Nutgrove Avenue,
Dublin 14. D14 V3F6

T: +353 (0)1 296 9000

E: dublin@nodwyer.com

W: www.nodwyer.com

OFFICES

15 Downshire Road, Newry Co Down. BT34 IEE
T: +44 (0)28 302 66915

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Jim Oliver,** BE, CEng, MIEI, C.WEM, MCIWEM, FConsEI
- **Jerry Cronin,** BE, MIEI, CEng, Eur Ing, MCIWEM, FConsEI
- **Gerard Monaghan,** BEng, MSc, MBA, CEng, FCIArb, MIEI, FConsEI

TOTAL EMPLOYEES

278

ABOUT THE FIRM

Founded in 1932, we have been at the forefront of innovative work, promoting Irish engineering consultancy in Ireland, the UK and internationally. We strive to deliver sustainable solutions that transform communities and bring about lasting positive change. Through a blend of expertise, innovation, and global dedication, we envision a world where sustainable engineering protects grow communities. Since we joined the RSK group in 2020 the firm has almost doubled in size and in addition to established offices in Ireland, the UK and Africa we have opened offices in the Middle East, South Africa and Indonesia.

ENGINEERING ACTIVITIES

Water, Environmental and Planning Services, Energy including renewable energy, Wastewater, Buildings & Structures, Communications, Transportation, Infrastructure, Technical Assistance.

PROJECT TYPES

Water Resource Management, Water Treatment, Water Distribution Networks, Wastewater Collection Systems, Wastewater Treatment Works, Flood Protection, Educational Buildings, Residential Buildings, Healthcare Buildings, Transportation and Highways, Bridge Design and Assessment, Port Facilities, Energy Infrastructure including Solar and Wind farms, Communications Infrastructure, Urban Development, Social and Environmental Assessments, Environmental Studies, Licencing and Permitting.

N.J. O'GORMAN & ASSOCIATES LTD

16 Gilford Road, Sandymount, Dublin 4. D04 EC80

T: +353 (0)1 475 5244

E: contactus@njog.ie

W: www.njog.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **John O'Donovan,** BE, PE, CEng, FConsEI

TOTAL EMPLOYEES

3

ABOUT THE FIRM

N.J. O'Gorman & Associates (NJOG) is a consulting engineering, project management and design development consultancy. Established in 1984, NJOG has gained over 30 years of experience in the Irish and UK construction industry by providing a high quality professional service. The practice is firmly focused on the needs of our clients and has a highly qualified and dedicated professional workforce which ensures the successful delivery of construction projects.

ENGINEERING ACTIVITIES

Project Management, Civil & Structural Engineering. Mechanical & Electrical Building Services Engineering, Project evaluation and auditing of development proposals, Project Monitoring, Dilapidation/Condition Surveys, Historic Buildings Conservation and Restoration, Fit-out and Refurbishment of Existing Buildings, Energy Efficiency and BER Certification, Planning Applications and EIS Coordination, Fire and Disability Access Certificate Applications, Commercial Property Dilapidation Surveys and Reports, Flat Roof Design and Surveys, Pyrite Investigation and Remediation.

PROJECT TYPES

Student Accommodation, Hotel, Office Developments and Fit-out, Hospital Developments, Nursing Home Projects, Educational Projects, Shopping Centre and Retail Projects, Multiplex Cinema Projects, Residential Development Projects. Large Scale Veterinary Complexes, Refurbishment of Residential and Commercial Buildings, Refurbishment of Historical/Heritage Buildings. Project Evaluations, Master Plan Development and Co-ordination. Environmental Impact Report Co-ordination. Kitchens and Restaurants, Conservation and Restoration, Industrial and Manufacturing, Energy and Sustainability, Hotel and Sports, New Roofs and Re-roofing Projects, Clean Room Design.

OBA CONSULTING ENGINEERS

The Schoolyard, No1 Grantham Street,
Dublin 8. D08 A494

T: +353 (0)1 535 0084

E: info@obaconsulting.ie

W: www.obaconsulting.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Ciaran O'Brien,** BEng, CEng, MIEI, Eur Ing, FConsEI

TOTAL EMPLOYEES

6

ABOUT THE FIRM

The firm was founded in 2009.

ENGINEERING ACTIVITIES

Civil & Structural.

PROJECT TYPES

Domestic, Educational, Industrial, Retail Development, Sport & Leisure, Roads & Bridges, Water, Office Development, Healthcare Facilities, Hotels, Pharmaceutical, (AD) Biomethane Production Facilities.

O'CONNOR SUTTON CRONIN

9 Prussia Street, Dublin 7. D07 KT57

T: +353 (0)1 868 2000

E: contactus@ocsc.ie

W: www.ocsc.ie

OFFICES

2nd Floor, Technology House, Galway Technology Park, Parkmore, Galway.
T: +353 (0)91 771 360

North Point House, North Point Business Park, Mallow Road, Cork. T23 AT2P
T: +353 (0)21 235 5816

113 The Mount, Belfast, BT5 4ND
T: +44 (0)28 9024 4444

3 Sutton Lane, London EC1M 5PU, United Kingdom
T: +44 (0)20 3879 4808

No. 2 Snow Hill, Unit 234, Birmingham, B4 6GA
T: +44 (0)121 231 3061

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Martin McGrath,** BEng, DipStructEng, CEng, MIEI, MIStructE, FConsEI
- **Patrick Field,** BSc(Hons), CEng, DipEng, GradDip (Thermal Bridging) MIEI, ASHRAE BEMP, FConsEI
- **Andy O'Brien,** BSc(Eng), DipStructEng, CEng, MIEI, MIStructE, DipProjMgt, FConsEI
- **Brian O'Rourke,** BL, CEng, FIEI, FCIArb, FCIHT, FConsEI
- **Michael O'Reilly,** BSc(Eng), DipStructEng, CEng, MIEI, MIStructE, FConsEI
- **Paul Healy,** BSc(Eng), CEng, FIEI, FIStructE, FConsEI
- **Brian Madden,** Dip.Eng, BScEng, PGD H+G, PGD CFE, PGD Int. S, FConsEI
- **Anthony Horan,** BE, CEng, MIEI, FConsEI, DipProjMgmt, PCertRSA
- **Shaun Doody,** BE, MSc, CEng, MIEI, MIStructE, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEERS

- **Eddie Lyons,** BE, CEng, MIEI, MIStructE, RConsEI
- **Ian Crehan,** BE, CEng, MIEI, MIStructE, RConsEI
- **Paul McSteen,** BSc(Eng), DipEng, CEng, MIStructE, MIEI, RConsEI
- **Declan Barry,** BE, CEng, MIEI, RConsEI
- **Mark Hogan,** BEng(Hons), CEng, MIEI, RConsEI

TOTAL EMPLOYEES

270

ABOUT THE FIRM

This firm was founded in November 1988 in Dublin. It has since grown to become an international, mutli-disciplinary practice.

ENGINEERING ACTIVITIES

Structural, Civil, Mechanical & Electrical, Roads, Bridge Design, Rail, Environmental, Construction Management, Project Management, Pollution Control, Waste Management, Water, Traffic, Expert Witness, Sustainability, Ecology, Health & Safety, PSDP.

PROJECT TYPES

Third Level Colleges, Hospitals, Offices, Apartments / Housing, Commercial / Corporate & Industrial Developments, Primary / Post Primary Schools, Site Development Works, Data Centres, Life Science Buildings, High Risk Buildings, Roads Design & Transportation, Bridges, Rail, Civil Engineering & Environmental, Local Authority Developments, Refurbishment, Leisure & Golf Course Projects, Construction Management, Public Realm, Greenways, Blueways, Active Travel, Cycle Infrastructure.

ORS

Block A, Marlinstown Business Park, Mullingar,
Co. Westmeath. N91 W5NN

T: +353 (0)1 524 2060

E: info@ors.ie

W: www.ors.ie

OFFICES

Pembr, 127 Baggot Street Lower, Baggotrath, Dublin, D02 F634
T: +353 (0)1 524 2060

Portershed, Eyre Square, Galway, H91 HY51
T: +353 (0)1 524 2060

Deise House, Link Road, Railway Square, Waterford, X91-FX2K
T: +353 (0)1 524 2060

Office 4, Spencer House, High Road, Letterkenny, Co. Donegal, F92 PX8N
T: +353 (0)1 524 2060

Unit W9B, Ladytown Business Park, Naas, Co. Kildare, W91 PC62
T: +353 (0)1 524 2060

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **David McCormack,** MSc, BEng(Hons), CEng, Dip Eng, MIEI, FConsEI
- **Mark Heslin**, BEng(Hons), CEng, MIEI, FConsEI

TOTAL EMPLOYEES

165

ABOUT THE FIRM

Since 1991, ORS has led the way in anticipating and responding to diverse client requirements in the construction industry. Time and experience have enabled us to create significant additional value in our projects with the blending of ten distinct, specialist design and build services. This multidisciplinary approach uniquely includes civil and structural engineering, project management, infrastructure, health and safety, building surveying, assigned certifier, fire safety, energy management, environmental services, and mechanical and electrical engineering. Over the decades, we have developed trusted, lasting partnerships with our property developer, international project funding agency, local authority, government agency, and private clients. Our end-to-end project collaboration with stakeholders, architects, design teams, and contractors ensures excellent, innovative solutions. Our success is made possible by our invaluable, industry-leading team of designers, consulting engineers, planners, scientists, and surveyors. Sustainability is proudly at the heart of every ORS project. Recently awarded the Best Company to Work For at the Irish Building and Design Awards and recognised for the sixth consecutive year by Great Place to Work Ireland as a Best Workplace, we offer our people a unique workplace culture based on flexibility, trust, and autonomy unparalleled in the construction industry.

ENGINEERING ACTIVITIES

Civil & Structural Engineering, Project Management, Infrastructure, Health & Safety Management, Building Surveying, Assigned Certifier, Fire Safety and Disability Access Consultancy, Sustainability, Environmental, Mechanical and Electrical Engineering.

PROJECT TYPES

Third Level Colleges, Primary/Post Primary Schools, Hospital Developments, Office Developments, Commercial/Corporate Developments, Apartment/Housing Developments, Roads Design & Transportation, Bridges, Rail, Industrial Developments, Civil Engineering Projects, Construction Management, Structural/ Infrastructure, Site Development Works, Local Authority Developments, Environmental Projects, Pharma, Refurbishment Projects, Leisure Developments, Golf Course Developments.

PATRICK McCAUL ENVIRON. CONSULTING ENGINEERS LTD

3 Bankmore Business Park, Bankmore Road, Omagh,
Co. Tyrone. BT79 0BE

T: +44 (0)28 8225 1155

E: info@pmccaul.com

W: www.pmccaul.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Niall O'Kane,** BEng(Hons), CEng, MCIBSE, FConsEI
- **Patrick McCaul,** BEng(Hons), CEng, MCIBSE, FConsEI

TOTAL EMPLOYEES

12

ABOUT THE FIRM

Patrick McCaul Environmental Consulting Engineers Ltd. is a fully accredited company of chartered mechanical and electrical and renewable technologies consulting engineers who have earned a respected reputation in the building services industry throughout Ireland.

The company has always been innovative and willing to embrace and implement new technologies. Being up-to-date with the most recent technological developments and legislation is a core business competency that helps ensure the company's place as one of the most experienced, dynamic and forward-thinking M&E engineering practices in Ireland.

We have extensive experience of new builds, refurbishment and upgrade projects over the years with quality design and build, sustainability, energy efficiency, comfort criteria, low maintenance and flexible and future proofing applied. Develop and construct contracts, including PFI projects, are a significant element of the design workload of the company over the past number of years and we have excellent experience of off-site constructions having completed the M&E services for numerous modular buildings.

As energy consultants we provide Low Carbon Design and Integration Strategies, Energy Management and Efficiency, Renewable Technologies consultancy and Building Energy Ratings (BER) assessments. These services recommend ways to control costs, reduce energy bills and lower carbon emissions which allow clients to operate their businesses to optimum efficiency.

We also provide a comprehensive, independent renewable energy consulting service to ensure maximum financial viability for our clients whether considering a small on-site system or a large-scale industrial project.

ENGINEERING ACTIVITIES

Mechanical & Electrical Engineering, Low Carbon Design & Integration Engineering and Building Energy Ratings.

PROJECT TYPES

Industrial, Educational, Healthcare, Churches, Hotels/Leisure, Swimming Pools/Spa's, Housing & Apartments, Office Blocks & Call Centres, Domestic, Retail and Commercial.

PAUL TWOMEY & ASSOCIATES LTD

18 St Patrick's Hill, Cork. T23 TN3H

T: +353 (0)21 450 7784 / 450 6414

E: info@ptaengineers.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Joseph O'Sullivan,** BE, CEng, Eur Ing, FIEI, FConsEI

TOTAL EMPLOYEES

4

ABOUT THE FIRM

The firm was founded in 1971 by the late Paul Twomey and provides specialist consultancy services in civil, structural, fire safety, project management, forensic and legal engineering.

ENGINEERING ACTIVITIES

Civil, Structural, Project Management, Fire Safety, Investigation of Damage to Structures, Presentation of Engineers Evidence, Building Structure Assessment.

PROJECT TYPES

Educational, Sports Centres, Housing Estate Services, Office Block, Structural Collapse Investigations, Factories, Warehouses, Religious, Underpinning.

P. COLEMAN & ASSOCIATES

Bank Place, Ennis, Co Clare. V95 HW27

T: +353 (0)65 682 9731 / 682 9173

E: engineers@pjcoleman.com

W: www.pjcoleman.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Patrick Coleman,** BE, MEngSc, CEng, FIEI, Eur Ing, FConsEI

TOTAL EMPLOYEES

6

ABOUT THE FIRM

Founded in 1976 in Ennis.

ENGINEERING ACTIVITIES

Civil, Structural, Roads, Planning, Site Developments, Litigation.

PROJECT TYPES

Hotels, Office Blocks, Visitor Centres, Housing Developments, Water Schemes, Sewerage Schemes, Roof Repairs, Site Development Work, Road Design, Planning Submission/Reports, Underground Car Parks, Retail Developments, Schools, Industrial Units.

PCCE PAUL CONDRON CONSULTING ENG LTD

10 Rectory Way, Herbert Road, Bray,
Co. Wicklow. A98 CD88

T: +353 (0)87 243 3602

E: info@pcce.ie

W: www.pcce.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Paul Condron,** BE, CEng, Eur Ing, MIEI, MCIBSE, FConsEI

TOTAL EMPLOYEES

1

ABOUT THE FIRM

PCCE - Paul Condron, has over 50 years' experience in his areas of operations. After some 30 years of building services experience in both Ireland and overseas, Paul developed PCCE in 2003 to offer training and consultancy services primarily directed at Life Safety Systems – Fire Detection and Alarm (FDAS) and Emergency Lighting (EML).

In addition, experience was developed through working with ACEI and Engineers Ireland in respect of Designing for Safety in Construction.

Former joint Managing Director of Cuthbert Condron Associates and subsequently Regional Director with White Young Green Ireland.

Overseas experience in Nigeria, Saudi Arabia, USA.

Active member of the NSAI technical committees representing ACEI members, for the development of the following National standards:
I.S.3218 - Fire Detection and Alarm Systems (2001-2021),
I.S.3217- Emergency Lighting (2010-2021).

ENGINEERING ACTIVITIES

Technical Course Development and Presentation:
Fire Detection and Alarm Systems (FDAS)
Emergency Lighting (EML)
Fire Safety Systems (FSS)
Construction Legislation (DSC)

PROJECT TYPES

PCCE Training - Courses

- Fire Detection and Alarm Systems (FDAS): 1-day Review Course; 3-day Level Certificate course developed to Level 6 Special Purpose; Service
- Emergency Lighting (EL): 1-day Review Course; Service and Maintenance
- Courses; Fire Safety (FSS): User Responsibilities for Fire Safety in Residential Buildings
- Legislation (DSC): Designing for Safety in Construction - Structural/Civil Engineering (SC) and Building Services/ Facilities Management) (M&E/FM)

PHM CONSULTING LTD

11 Mallow Street, Limerick, V94 WRN4

T: +353 (0)61 576 020

E: info@phm.ie

W: www.phm.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Edward O'Donovan,** BSc(Eng), MProjectMgt, CEng, MIStructE, FConsEI

TOTAL EMPLOYEES

5

ABOUT THE FIRM

Established in 2009.

ENGINEERING ACTIVITIES

Civil and Structural, Environmental.

PROJECT TYPES

Commercial/Retail, Housing Schemes, Resource/Recreational Centres, Industrial/Warehousing, Educational, Environment, Stakeholder Management & Communications, Project Management Services, Structural/Buildings, Transport Planning.

PMCE LTD

17 Greenmount House, Greenmount Office Park, Harold's Cross, D6W. D6W VX78

T: +353 (0)1 464 3041

E: info@pmceconsultants.com

W: www.pmceconsultants.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Peter Monahan,** BE, MSc, FIEI, MIHT, FConsEI

TOTAL EMPLOYEES

11

ABOUT THE FIRM

PMCE is a specialist consulting engineering firm headquartered in Dublin, Ireland, established in 2006 by Mr. Peter Monahan. PMCE provides consulting engineering services to public and private clients in Ireland, the UK and GCC countries in the areas of road safety engineering, road safety audits, road planning and design, traffic analysis & assessment and project management.

ENGINEERING ACTIVITIES

Traffic Modelling, Road Design, Road Safety Audit, Road Safety Inspection, Project Management, Collision Analysis, Network Safety Assessment, Network Safety Ranking, Quality Audit, Road Safety Impact Assessment, Project Supervisor Design Process (PSDP), Research, Training.

PROJECT TYPES

Road & Junction Improvement, Road Safety Improvement, Active Travel, Urban Realm, Traffic Engineering, Road Safety Audit, Road Safety Inspection, Traffic & Transport Assessment, Quality Audit.

POGA CONSULTING ENGINEERS

D20, Nutgrove Office Park, Rathfarnham, Dublin14. D14 PF98

T: +353 (0)1 205 1101

E: info@poga.ie

W: www.poga.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Paul Moran,** BE, CEng, FConsEI

TOTAL EMPLOYEES

8

ABOUT THE FIRM

POGA Consulting Engineers is a leading Irish independent consultant engineering practice. Our practice has over 30 years' experience providing professional consultant engineering services to the construction industry throughout Ireland and we pride ourselves on our unrivalled service. Our client profile includes private clients, developers, pubic bodies, international corporations, national asset management agency, local authorities and building contractors. We are Independently owned so we can focus on our clients' requirements. Our approach has made a real difference to our clients and this is measured not just in testimonials but in our client retention rate and continued growth of our business.

ENGINEERING ACTIVITIES

Structural & Civil.

PROJECT TYPES

Residential Developments, Retail/Commercial, Special Structures, Apartments, Industrial Estates, Conservation/ Building Restoration, Office Developments, Hotels, Factories & Warehousing, Educational & Community Buildings, Roads, Drainage.

PUNCH CONSULTING ENGINEERS

Carnegie House, Library Road, Dun Laoghaire,
Co. Dublin. A96 C7W7

T: +353 (0)1 271 2200

E: dublin@punchconsulting.com

W: www.punchconsulting.com

OFFICES

97 Henry Street, Limerick, V94 YC2H
T: +353 (0)61 221 200

Elm Court, Boreenmanna Road, Cork, T12 HHW2
T: +353 (0)21 462 4000

Carleycon House, Main Street, Oranmore, Co. Galway, H91 T026
T: +353 (0)91 703 500

Unit 2, The Doges Building, Templeton On The Green, Glasgow,
G40 1DA, Scotland
T: +44 (0)141 550 7270

The Ropewalks, Newton Street, Macclesfield, Cheshire, Sk11 6QJ
T: +44 (0)1625 615563

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Tim Murnane,** BEng, CEng, FIEI, FICE, FConsEI, EurIng
- **Cian Murphy**, BE, MSc, CEng, MIEI, FConsEI
- **Ronan Stokes,** BE, CEng, FIEI, MIStructE, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEERS

- **Kevin O'Riordan,** BEng, CEng, MIEI, RConsEI
- **Johan-Theo Myburgh**, BEng, CEng, MIEI, RConsEI
- **Ralmar Roberts**, BEng, MEng, CEng, MIEI, RConsEI
- **David Coughlan**, BEng, CEng, MIEI, RConsEI

TOTAL EMPLOYEES

120

ABOUT THE FIRM

PUNCH was founded in 1973 in Limerick. The vision of its founding members was to create sustainable, high quality engineering employment in the mid west region. This vision has been fully realised and 50 years later, the company has expanded geographically to have offices in the four largest cities in the Republic. Additionally, we have two offices in the UK – Glasgow and Macclesfield. We provide engineering consultancy services in the area of civil, structural and environmental engineering. Our highly skilled team has extensive experience of planning, detailed design and construction and we have an extensive portfolio of completed projects throughout Ireland and beyond. Some notable award winning projects include: International Rugby Experience Building, National Gallery of Ireland, National Forensic Mental Hospital Dublin, Adare Manor and Thomond Park Rugby Stadium.

ENGINEERING ACTIVITIES

Civil, Structural, Environmental, Transportation, Flooding, Assigned Certifier, Health and Safety (PSDP), Expert Witness and Government Advisory Work.

PROJECT TYPES

Residential, Office Developments, Industrial, Logistics, Bridges, Marine, Commercial, Museums/Cultural, Education Facilities, Roads, Heritage and Refurbishment, Sports and Leisure, Healthcare, Hotels, Waste Treatment, Water Supply and Conservation.

RKA CONSULTING ENGINEERS

2 Clogheen Business Park, Blarney Road,
Cork. T23 X70V

T: +353 (0)21 439 9799

E: admin@rka.ie

W: www.rka.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Raymond F. Keane,** BE, MEngSc, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

8

ABOUT THE FIRM

RKA Consulting Engineers is an ISO9001:2015 accredited firm of consulting engineers and project managers. The practice, which was established in 1985, provides expertise in civil and structural engineering and project management. The practice is structured to offer a comprehensive range of engineering and project management services. We take pride in delivering a dedicated personalised service to our clients.

ENGINEERING ACTIVITIES

Engineering Activities.

PROJECT TYPES

Land Use Feasibility Studies, Retail and Forecourt Developments, Residential and Regeneration Projects, Building Conservation Projects, Office, Commercial and Business Park Developments, Industrial and Waste Management Developments, Land Surveying and Mapping.

ROADPLAN CONSULTING

7 Ormonde Road, Kilkenny. R95 N4FE

T: +353 (0)56 779 5800

E: info@roadplan.ie

W: www.roadplan.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Dermot Donovan,** BE, Dip Env Eng, CEng FIEI, FConsEI

TOTAL EMPLOYEES

12

ABOUT THE FIRM

Roadplan Consulting provides engineering consultancy services in road design, road safety and transportation assessment. Roadplan Consulting was established in late 2003 and operates from our offices in Kilkenny City. Our staff has a wealth of experience in all areas of the roads and traffic industry and serves the needs of a broad public and private client base.

ENGINEERING ACTIVITIES

Road Design, Road Safety Assessment, Urban Mobility, Transportation Analysis, Statutory Processes.

PROJECT TYPES

Roads, Urban Realm, Road Assessment Management.

ROGER MULLARKEY & ASSOCIATES

Duncreevan, Kilcock, Co. Kildare. W23 C4E9

T: +353 (0)1 610 3755 / +353 (0)87 232 4917

E: info@rmullarkey.ie

W: www.rmullarkey.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Roger Mullarkey,** BSc(Eng), DipEng, CEng, MIEI, Eur Ing, FConsEI

TOTAL EMPLOYEES

2

ABOUT THE FIRM

With over 26 years of experience, Roger Mullarkey has a vast experience right across the construction industry sector and has gained a strong reputation as a professional, safe, efficient and reliable consultant engineer who has always maintained a strong commitment to clients in providing a comprehensive consultancy service. Roger provides a high quality design in a cost efficient manner with a client-centred approach. Maintaining a personal commitment to every project from inception to completion is a proven attribute of Roger Mullarkey and is reflected by the respect he has gained in the quarter of a century of his consultancy experience.

ENGINEERING ACTIVITIES

Structural Engineering Design, Civil Engineering Design, Site Supervision, Structural Building Surveying.

PROJECT TYPES

Residential, Commercial & Retail Developments, Hotel/ Accommodation Schemes, Land Use Feasibility, Schoo Projects, Community Buildings, Local Authority Projects, New and Remediated Industrial Developments, Conservation Refurbishment and Due Diligence.

ROUGHAN & O'DONOVAN

Arena House, Arena Road, Sandyford,
Dublin. D18 V8P6

T: +353 (0)1 294 0800
E: info@rod.ie

W: www.rod.ie

OFFICES

Unit 2.1, Block 2, Woodford Business Park Turnapin Little,
Dublin 17. D17 E925
T: +353 (0)1 294 0800

82-87 Pegholme, Wharfebank Mills, Ilkley Road, Otley, LS21 3JP
T: +44 (0)113 298 0000

Office 4.30, 1 Horgans Quay, Cork

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Harry Meighan,** (Chairman) BE, CEng, FIEI, HDipConsLaw, FConsEI
- **Richard Marc Jones,** (Managing Director) BEng (Hons), CEng MICE, CEng MIEI, FConsEI
- **Jim Thorpe,** BSc, DipEng, CEng, MIEI, MICE, FConsEI
- **Mark Kilcullen,** BE, MSc, CEng, MIEI, FConsEI
- **Seamus MacGearailt,** BE, CEng, FIEI, FConsEI
- **Aonghus O'Keeffe,** BEng MEngSc MBA CEng MIEI, FConsEI
- **Daire O Riagáin,** BE(Hons), P.Grad.Dip Cons Law, CEng, MIEI, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEERS

- **Andrew Thomson,** PhD, BAI, BA, HDip (PrjMgt), CEng, MIEI, RConsEI
- **Edward Warren,** BE Civil, CEng, MIEI RConsEI
- **Peter King,** BA, BAI, PGrad.Dip, CEng, RConsEI
- **Eoin O'Catháin,** BE, MSc, HDip, CEng MIEI, RConsEI
- **Ciaran McGee,** CEng, MIEI, BEng(Hons), BEng(Ord), HC in Civil Eng, RConsEI
- **Matthew Ryan,** MSc, BE(Hons), CIEI, RConsEI

TOTAL EMPLOYEES

258

ABOUT THE FIRM

Founded in 1974 the company has expanded to a leading position in the Irish market providing integrated multi-disciplinary professional services through all project phases. Current projects include TII eMOS, TII MCAAS, A5 WTC, Waterford City North Quays, HSE CNU PPP, HSE Decarbonisation Pathfinder, West Clare Greenway, BusConnects, DART+ West, Cork Area Commuter Rail Project, N5 Ballaghaderreen to Scramoge, Great Yarmouth Third River Crossing and Narrow Water Bridge. The company has a research group who have undertaken investigation on the use of AI in the road sector.

ENGINEERING ACTIVITIES

Asset Management, Buildings, Bridges, Civil, Environmental, Energy, Flood Modelling and Defences, Geotechnics, ITS, Planning, Ports and Harbours, Rail, Roads, Greenways, Research, Site Development, Structural, Traffic and Transportation, Water and Wastewater, Contract Administration, Project Supervisor Design Process (PSDP).

PROJECT TYPES

All types of projects in the practised fields of engineering from feasibility through to handover.

RPS CONSULTING ENGINEERS

West Pier Business Campus, Dún Laoghaire,
Co. Dublin, A96 N6T7

T: +353 (0)1 488 2900

E: rps.ireland@rps.tetratech.com

W: www.rpsgroup.com

OFFICES

Cork	T: +353 (0)21 466 5900
Galway	T: +353 (0)91 400 200
Sligo	T: +353 (0)71 913 8909
Kilkenny	T: +353 (0)1 488 2900

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Willie Madden,** BA, BAI, MSc, PG Cert Mgt, CEng, FConsEI (Managing Director)
- **Gerry Carty,** BE, ME, CEng, FIEI, C.WEM, MCIWEM, MInsD, FConsEI
- **Christy O'Sullivan,** BA, BAI, MSc, CEng, CWEM, FIEI, MICE, MCIWEM, FConsEI
- **Grellan McGrath,** BE, CEng, FConsEI
- **David McHugh,** BE, MBA, CEng, MIEI, C.WEM, MCIWEM, FConsEI
- **Alan Curran,** BA, BAI, CEng, Post Grad DipEng, Post Grad Dip Mgt, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEERS

- **Brendan Brice,** BE, MEngSc, CEng, MIEI, RConsEI
- **Eamon Cox,** BE, CEng, MassPE, DipPM, RConsEI
- **Gareth McElhinney,** BE, MBS, CEng, MIEI, PMI-PMP, RConsEI
- **Paul O'Riordan,** BE, CEng, MIEI, RConsEI
- **Rowan O'Callaghan,** BE, MEngSc, DipIT, CEng, MIEI, RConsEI
- **Michael Minehane**, BEng(Hons), MEng, DipHE, CEng, MIEI, RConsEI

TOTAL EMPLOYEES

480

ABOUT THE FIRM

We are an integrated multidisciplinary engineering, environmental, planning, project management and project communications consultancy. Part of Tetra Tech since 2023. Established in 1967.

ENGINEERING ACTIVITIES

Airports, Asset Management, BIM, Bridges, Civil, Energy, Environmental, Fire, Geotechnical, Health & Safety, Industrial & Commercial, Mechanical/Electrical, Planning, Pharmaceutical, Ports/Harbours, Project Management, Road, Rail, Structural, Sustainability, Waste, Wastewater and Water.

PROJECT TYPES

Catchment & Marine Management, Civil (incl Associated Structures), Energy (inc. Renewables), Environment and Ecology (inc. AA/EIA/SEA), Flood Risk Management, Geotechnical / Hydrological/ Hydrogeological, Health & Safety, Information Technology (inc GIS), Marine, Oil, Gas and Water Pipelines, Planning, Project Management, Public Private Partnership (PPPs/DB/DBO), Risk Assessments, Roads/Ports/Rail/Airports, Stakeholder Management & Communications, Structural/ Buildings/Bridges, Sustainability, Transport Planning, Waste Management, Water/Wastewater.

RYAN ASSOCIATES CONSULTING ENGINEERS

Unit C4, Nutgrove Office Park, Rathfarnham,
Dublin 4. D14 W6K3

T: +353 (0)1 299 0730

E: info@ryanassociates.ie

W: www.ryanassociates.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Valentine Ryan,** BSc, CEng, MIEI, MIStructE, FConsEI

TOTAL EMPLOYEES

3

ABOUT THE FIRM

Established in 2003 we specialise in the design of building structures and associated civil engineering works and the monitoring of their construction. We are passionate about buildings and about our role in the design and construction process. We aim to deliver technically excellent, sustainable and cost-efficient solutions.

We believe in a collaborative process involving client, design team and contractors. This is key to achieving our common goal – another successful project.

ENGINEERING ACTIVITIES

Civil, Structural, Conservation, Project Management.

PROJECT TYPES

Domestic, Residential, Multi-storey Residential , Commercial Developments, Industrial and Warehousing , Retail, Offices, Hotels/Leisure, Schools, Healthcare, Nursing Homes, Conservation, Expert Reports.

RYAN HANLEY

1 Galway Business Park, Dangan, Galway. H91 A3EF

T: +353 (0)91 587 116

E: info@ryanhanley.ie

W: www.ryanhanley.ie

OFFICES

5th Floor, Jervis House, Jervis Street, Dublin 1. D01 E3W9
T: +353 (0)1 297 3030

Innovation House, Moneen Road, Castlebar, Co. Mayo. F23 E400
T: +353 (0)91 587 116

Building 1000, Gateway Business Park, New Mallow Road, Cork.
T: +353 (0)91 587 116

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Ger Gibney,** BE, CEng, MIEI, FConsEI (Managing Director)
- **Elaine Shields,** BE, MEngSc, CEng, MIEI, MCIWEM, FConsEI
- **Daniel Bourke,** BE, M.Info Tech, APM, CEng, FConsEI
- **Patrick Scally,** BE, MEngSc, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

150

ABOUT THE FIRM

Founded in 1931. Present company formed in 1980.

ENGINEERING ACTIVITIES

Civil and Structural, Water, Wastewater, Drainage, Environmental, Flood Control, River Management, Water Conservation, Asset management, Roads, Traffic, Site Development, Structural Design of Buildings and Bridges, Project Management, Quantity Surveying, Statutory Compliance, Marine, Leisure.

PROJECT TYPES

Water Resource Planning, Water Treatment, Water Supply, Water Conservation, Water System Management, Drainage Urban, Hydrological Studies, Flood Control, Wastewater Treatment, Marine Outfalls, Environmental Impact Statements, Transportation, Traffic Analysis, Roads, Bridges, Building Design, Ecological Assessments and Reports.

SDS DESIGN ENGINEERS

Unit 9, N5 Business Park, Castlebar, Co. Mayo.
F23 E283

T: +353 (0)94 9034914

E: info@structuraldesign.ie

W: www.structuraldesign.ie

OFFICES

Dublin : Silverdale, Old Swords Road, Santry, D09 CA24
T: +353 (0)1 687 7480

Galway : Comworks, Station Road, Loughrea, Galway. H62VN56
T: +353 (0)94 903 4914

London : Bridge House, 25-27 The Bridge, Wealdstone, Harrow. HA3 5AB
T: +44 203 026 6724

Spain : Calle Virgen de Guadalupe 44, Ubeda 23400, Jaen.
T: +34 662 556 212

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Danny Groarke,** MSc, BE, DIC, FConsEI

TOTAL EMPLOYEES

20

ABOUT THE FIRM

SDS design engineers is a design-focused civil, structural, architectural and geotechnical engineering practice. With over 20 years' experience in the Irish and UK market we are experts in the construction of low-rise buildings, the analysis of ground conditions, and foundation design. Our clients are in public and private sectors, including government bodies, developers, main contractors and owners. Key to our success has been our long-term relationships with our existing client base who continuously re-engage with us on new projects and designs. Our reputation of excellence is a product of knowledge, teamwork, dedication, communication and total commitment to achieving top quality results. Our commitment to quality means that all contracts are continuously monitored and assessed to ensure that they are completed on time, within client budgets and most importantly, according to the company's and the clients' standards and specifications. Our highly skilled and experienced design team are fully competent with the most up to date software and are always available to offer you advice and design solutions on any challenges you may be facing on your project. By using our innovative and efficient design thinking we are always able to propose significant acceleration in construction activities, which in many instances can achieve significant budget savings.

ENGINEERING ACTIVITIES

Structural, Civil, Water/Waste Water, Geotechnical, Temporary Works, Assigned Certifier.

PROJECT TYPES

Residential, Commercial, Mixed Development, Industrial/ Warehousing/Data Centres, Education.

SEMPLE & MCKILLOP

Unit 6, Drumillard Retail Park, Monaghan Road, Castleblayney, Co. Monaghan. A75 KH60

T: +353 (0)42 974 9570

E: info@semplemckillop.com

W: www.semplemckillop.com

OFFICES

Belfast: Unit 4, Eastbank House, 3 Eastbank Road, Carryduff, Belfast, BT8 8BD
T: +44 (0) 28 9033 1700

Enniskillen: The Workhouse, 2 Erne Road, Enniskillen, BT74 6NN
T: +44 (0) 28 6672 0077

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Stephen Finch,** BEng, CEng, FIEI, FConsEI

TOTAL EMPLOYEES

47

ABOUT THE FIRM

As a multi award-winning practice, we have experience across all sectors. With significant new build and refurbishment works experience, our expertise is particularly strong within the education, healthcare, housing, retail and commercial sectors. We have developed an impressive local and international client base in both the public and private sectors.

ENGINEERING ACTIVITIES

Mechanical, Electrical, Plumbing, Low Carbon and Environmental Consultancy, Specialist Technical Services.

PROJECT TYPES

Education, Healthcare, Housing, Retail and Commercial sectors.

SIOBHAN FAHEY

Chartered Engineer and Chartered Arbitrator,
15 Newpark, Newtownpark Avenue, Blackrock,
Co. Dublin. A94 D6H0

T: +353 (0)1 515 7254

E: siobhanfahey@protonmail.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Siobhan Fahey,** BA, BAI, LLB, DiplArb, CEng, MIEI, FCIArb, CIArb Accredited Mediator. FIDIC International Accredited Trainer. CIArb Accredited Adjudicator (Republic of Ireland), FIDIC President's List Adjudicator, Adjudicator on the Ministerial Panel of Adjudicators under the Construction Contracts Act 2013. FConsEI

TOTAL EMPLOYEES

3

ABOUT THE FIRM

Siobhan Fahey is a Chartered Civil Engineer who specialises in construction law. Her particular expertise is in the avoidance and resolution of construction disputes. An independent consultant since 2004, Siobhan spends her working life as an Arbitrator, Conciliator, Adjudicator, Dispute Board Member and Mediator of construction disputes. She also provides advice and training on contracts, dispute avoidance and dispute resolution.

Siobhan became a Chartered Engineer in 1996, completed a law degree in 1997, obtained a postgraduate diploma in arbitration in 2000, became a Chartered Arbitrator in 2009, qualified as an Accredited Mediator with CIArb in 2011, an International Accredited Trainer with FIDIC in 2012 (Module 1) and 2013 (Module 2), a CIArb Accredited Adjudicator (Republic of Ireland) in 2014, a FIDIC President's List Adjudicator in 2016, and an Adjudicator on the Ministerial Panel of Adjudicators under the Construction Contracts Act 2013 in 2021.

She has worked in Ireland, the United Kingdom, Europe and the Far East, for consulting engineering firms, government agencies, contractors and consultancy firms advising contractors and developers.

Siobhan is on the FIDIC President's List of Approved Dispute Adjudicators, and on the panels of Arbitrators and Conciliators held by Engineers Ireland and by the Chartered Institute of Arbitrators. She is a former Chair of the Dispute Resolution Board of Engineers Ireland.

She is a frequent speaker at FIDIC international conferences, and at training workshops and seminars run by the Chartered Institute of Arbitrators, Engineers Ireland, the Society of Construction Law, and Kings College London.

In FIDIC Siobhan was a Member of the Contracts Committee (CC) from 2018 to 2022; the CC's Principal Drafter of the FIDIC 2017 construction, plant & design-build and EPC/turnkey forms of contract (and their 2022 updates); and the CC's Principal Drafter of the FIDIC Contracts Guide 2022.

She was also a member of ICC's expert panel for revision of the ICC Dispute Board Rules in 2015.

ENGINEERING ACTIVITIES

Arbitration / Mediation, Civil, Legal / Forensic, Dispute Resolution, Adjudication, Conciliation.

PROJECT TYPES

Civil Engineering, Building and Commercial.

STEM CONSULTING ENGINEERS

4-5 Burton Hall Road, Sandyford, Dublin.
D18 A094

T: +353 (0)87 2653640

E: info@stemtech.ie

W: www.stemtech.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Arthur Shirran,** BSc(Eng), Dip Eng, Dip Proj Mgmt, CEng, MIEI, MIStructE, FConsEI
- **Thomas Griffin,** BSc(Eng), Dip Eng, Dip Proj Mgmt, CEng, MIEI, MIStructE, MSc Const. Info, FConsEI

TOTAL EMPLOYEES

6

ABOUT THE FIRM

Stem Consulting Engineers was founded in 2022 and has swiftly built a strong reputation for delivering innovative, timely and cost-effective designs. The two directors have each more than 25 years' professional engineering experience and along with a continued commitment to excellence, precision, and collaboration have earned their clients trust and repeat business. Having moved in 2024 to a new office location adjacent to the M50 in South Dublin, Stem can now readily service our clients' projects in the larger part of Dublin and the surrounding counties.

ENGINEERING ACTIVITIES

Structural Engineering, Civil Engineering, Temporary Works Design, Renovation of Historic Structures, Façade design, Health & Safety.

PROJECT TYPES

Retail, Education, Healthcare, Housing, Commercial, Industrial, Logistics Parks, Manufacturing Facilities, Protected structures, Civic and Public Buildings, Renovations and Civil Projects.

SWECO

4th Floor, 1 Horgan's Quay, Waterfront Square, Cork. T23 PPT8

T: +353 (0)21 206 3920

E: john.ryan@sweco.ie

W: www.sweco.ie

OFFICES

The Greenway, Block C, Ardilaun Court, 112-114 St Stephen's Green, Dublin 2, D02 TD28

Cork: 4th Floor, 1 Horgan's Quay, Waterfront Square, Cork, T23 PPT8

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **John Ryan**, CEng, BEng, MSc Business Economics, FConsE

TOTAL EMPLOYEES

10 in Ireland, 15,000 in Europe

ABOUT THE FIRM

Sweco plans and designs the communities and cities of the future. The results of our work are sustainable buildings, efficient infrastructure and access to clean water. With 15,000 employees in Northern Europe, we offer our customers the right expertise for every project. We carry out projects in 70 countries annually throughout the world. Sweco is Europe's leading architecture and engineering consultancy.

ENGINEERING ACTIVITIES

Active Travel, Asset Management, BIM, Bridge Engineering, Building and Specialist Structural Engineering, Building Services, Building Structures, Carbon Management, Construction Supervision, Contaminated Land and Water Quality, Development Infrastructure, District Heating, Due Diligence Services, Ecology, E-mobility, Energy Storage, Environmental Impact Assessment/ EIAR, Expert Witness Services, Fire Engineering, Flood Risk Management, Gas to Grid and Biomethane Upgrading, Grid Services, Ground Engineering, Highway Engineering, Intelligent Building Solutions, Intelligent Transport Systems, Landscape Design, Multimodal Studies, Offshore Wind, Onshore Wind and Hydro, Pavement Engineering, Project Management, Real Time Systems and Data, Regulation, Risk and Value Management, Road Safety Audits, Site SCADA Systems, Sludge Treatment, Solar, Stakeholder Management, Sustainable Development and Planning, Telemetry Systems, Thermal Biomass and CCGT, Traffic Engineering and Design, Transport Appraisal, Transport Economics, Transport Modelling, Transport Planning for Development, Transport Policy and Strategy, Transportation Feasibility Studies, Travel Behaviour Change, Travel Planning, Value Engineering, Waste and Regulatory, Waste and Resources Management, Wastewater Infrastructure, Wastewater Non Infrastructure, Water Infrastructure, Water Non-Infrastructure, Water Resources.

PROJECT TYPES

Asset Management, Building Engineering, Energy, Environment, Transport Planning, Development Infrastructure, Transportation Infrastructure, Water, Landscape Architecture.

SYSTEMCORE BUILDING CONSULTANTS LTD

57 Fitzwilliam Square N, Dublin 2, D02 CP02

T: +353 (0)1 541 3004

E: info@systemcore.ie

W: www.systemcore.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Conor McGinn**, CEng, MSc, BEng (Hons), FConsEI

TOTAL EMPLOYEES

12

ABOUT THE FIRM

Established in 2020, we are the next generation of M&E consulting engineers, dedicated to designing systems for low-carbon, intelligent, self-optimising spaces that enhance occupant well-being, and reduce environmental impact — maximising process and operational efficiency and creating value for clients. By integrating cutting-edge technology with deep engineering expertise, we deliver bespoke solutions that meet the evolving needs of our clients and drive towards a net zero carbon future.

ENGINEERING ACTIVITIES

M&E Consultancy, Energy Retrofit and Sustainability, Digital Transformation, Energy Monitoring, Building Analytics, IOT and Digital Twin.

PROJECT TYPES

Healthcare, Commercial Office, Life Sciences, Manufacturing and Hospitality.

TG LENIHAN & CO

O'Brien Street, Kanturk, Co. Cork. P51 FK19

T: +353 (0)29 20900

E: info@lenihanengineers.com

W: www.lenihanengineers.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Tim Lenihan,** BE, CEng, MIEI, FConsEI

TOTAL EMPLOYEES

6

ABOUT THE FIRM

Established in 2003, TG Lenihan has established a reputation in the region as being capable of providing a professional service in all aspects of civil and structural engineering. We have a track record in successfully completing large commercial and industrial projects. Based in a rural town, we also have established a reputation in the local community as providing civil engineering services, including house surveys, mapping, land surveys, fire certificates, DAC certificates and more.

ENGINEERING ACTIVITIES

Structural Design, Project Management, Assigned Certifiers.

PROJECT TYPES

Industrial Warehousing, Churches, Industrial Plants, Schools, Sports Stadia, Housing Developments, Agricultural.

THE McKENNA PEARCE PRACTICE

Unit 30, Spruce Avenue, Stillorgan Industrial Park, Stillorgan, Co. Dublin. A94 R251

T: +353 (0)1 289 7260

E: mail@mckennapearce.com

W: www.mckennapearce.com

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Jonathan A. O'Neill,** BSc(Eng), PDipProjMan, CEng, MIEI, MIStructE, FConsEI

TOTAL EMPLOYEES

3

ABOUT THE FIRM

Formed in 1996 by the amalgamation of Pearce Associates, Consulting Engineers (est.1981) and T.A.McKenna & Partners, Consulting Engineers (est. 1978). The aim of the practice is to provide effective engineering solutions consistent with our clients programme and budget.

ENGINEERING ACTIVITIES

Engineering Design: Structural,Civil, Building Refurbishment and Conservation; Safety: Fire Safety, Health & Safety (PSDP); Project Management: Feasibility Studies, Planning, Assigned Certifier, Insurance Claims & Investigations.

PROJECT TYPES

Commercial Developments including Retail and Office Complexes, Industrial and Manufacturing Developments, Residential Developments including Multi-Storey Apartments, Hotel, Leisure and Sports Complexes, Schools, hospitals and religious buildings, Aviation Projects, Domestic.

T.J. O'CONNOR & ASSOCIATES

Corrig House, Corrig Rd, Sandyford,
Dublin 18. D18 Y663

T: +353 (0)1 295 2321

E: tjoc@tjoc.ie

W: www.tjoc.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Edward Fitzgerald,** BE, CEng, MIEI, MICE, MCIWEM, FConsEI
- **Michael Moriarty,** BE, MEngSc, CEng, FIEI, FConsEI
- **Siobhán Moneley,** B.E., MSc(Eng), PgCert BIM Tech, PgDip Collab. BIM, CEng, FIEI, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEERS

- **Diarmuid Cahalane,** BE, MEngSc, DipConstLaw, CEng, FIEI, CWEM, MCIWEM, RConsEI
- **Liam Clear**, BE, MICE, MCIWEM, CEng, RConsEI
- **John Meade,** BSc(Eng), Dip Eng, Dip Proj Mgmt, CEng, MIEI, MIStructE, RConsEI
- **Niall McCaffrey,** BSc(Eng), Dip Eng, PGDip H&S, PMP®, CEng, MIEI, CertIOSH, RConsEI
- **Ronan McElwain,** BEng(Hons), MSc Mgmt, PGDip ABRC, PGDip H&S, CEng MIEI, MIStructE, MICE, RConsEI
- **Ronan Doyle,** BEng(Hons), CEng, MIEI, CWEM, MCIWEM, RConsEI
- **Catriona McAuliffe,** BEng(Hons), PGDip H&S, CEng MIEI, RConsEI

TOTAL EMPLOYEES

50

ABOUT THE FIRM

Established in 1937 by Mr T. J. O'Connor and subsequently formed into T. J. O'Connor & Associates.

ENGINEERING ACTIVITIES

Civil and Structural Engineering.

PROJECT TYPES

Civil

Water Supply Schemes, Water Treatment Plants, Drainage Schemes, Waste Water Treatment Plants, Flood Relief Schemes.

Structural

Hospitals, Schools, Apartments, Town Centres / Shopping Centres, Office Developments, Industrial Buildings.

BIM
Level 2 BIM / ISO 19650 compliant on all Civil and Structural Engineering Projects.

TOBIN

Fairgreen House, Fairgreen Road, Galway. H91 AXK8

T: +353 (0)91 565211

E: info@tobin.ie

W: www.tobin.ie

OFFICES

Block 10-4 Blanchardstown Corporate Park, Dublin 15. D15 X98N
T: +353 (0)1 803 0401

Market Square, Castlebar, Co Mayo. F23 Y427
T: +353 (0)94 902 1401

Unit 4, Cresent Court, St. Nessan's Road, Dooradoyle, Limerick. V94 V298
T: +353 (0)61 976262

1st Floor, Carroll House, Stephen Street, Sligo. F91 P7N2
T: +353 (0)71 9318844

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Michael McDonnell,** BE, MEngSc, MBA, CEng, FIEI, FConsEI
- **Ciaran McGovern,** BEng, MBA, CEng, FIEI, MInstD, FConsEI
- **Brian Gallagher,** BE, MEngSc, CEng, FIEI, FConsEI

TOTAL EMPLOYEES

185

ABOUT THE FIRM

TOBIN is a multidisciplinary professional services practice operating in the built environment and renewables sector in Ireland, with over 70 years' experience in infrastructural development since our foundation by Patrick J Tobin in 1952.

ENGINEERING ACTIVITIES

Building & Infrastructure, Environment & Planning, Water & Utilities and Roads & Transportation.

PROJECT TYPES

Building & Infrastructure: Structural Engineering, Civil Engineering, Roads & Transportation Engineering, Specialist Sports Infrastructure Design, Project Management, Quantity Surveying & Cost Management, Contract Administration, Assigned Certifier, PSDP / Health & Safety, Planning Assistance Consultancy Services, Fire Safety & Disability Access Certificate Design, Civil & Statutory Consents.

Water & Utilities: Blue-Green Infrastructure, Design Build, Flood Risk and Dams, Asset Strategy.

Environment & Planning: Environmental Impact Assessments, Local Authority Planning Applications, Strategic Infrastructure Development (S.I.D.) Planning Applications, Waste Management Planning (Construction & Operational), Environmental Due Diligence Assessments, Appropriate Assessments / NIS, Construction & Environmental Management Plans, Contaminated Land Assessment & Remediation Due Diligence, Ecological Assessments, Ecological Clerk of Works (ECoW), Environmental Monitoring, Expert Witness for Oral Hearings, Groundwater Vulnerability Mapping, Hydrogeological Assessments, Biodiversity.

Roads & Transportation: Active Travel, Transportation Engineering, Road Maintenance, Road Design.

TORQUE CONSULTING ENGINEERS LTD

Unit K26, Drinan Enterprise Centre, Swords Enterprise Park, Swords, K67 E722

T: +353 (0)1 485 3933

E: contactus@tcel.ie

W: www.tcel.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Ken Moriarty** (Managing) BSc(Eng), DipStructEng, CEng, FIEI, FIStructE, Eur Ing, FConsEI

TOTAL EMPLOYEES

2

ABOUT THE FIRM

Torque Consulting Engineers was founded in 2013 by Ken Moriarty. Based in Dublin, our vision is to provide excellent design coupled with strong personal relationships and customer satisfaction. Ken has a wealth of experience acting as project director on many significant public, commercial, retail, residential and protected structures. Ken is a Fellow of Engineers Ireland since 2013 and a Fellow of The Institution of Structural Engineers since 2015. Torque Consulting Engineers is committed to providing clients with friendly, personal and professional service from inception of the project to practical completion and beyond.

ENGINEERING ACTIVITIES

Structural Engineering, Civil Engineering, Project Management.

PROJECT TYPES

Structural Engineering projects of any size across all sectors, Civil Engineering, Engineering Inspection & Assessment Reports, Due Diligence Reports, Feasibility Studies, Value Engineering, Planning & Development, Protected Structure refurbishment.

VARMING CONSULTING ENGINEERS LTD

Classon House, Dundrum Business Park, Dundrum Road, Dublin 14. D14 V9F5

T: +353 (0)1 487 2300

E: varming@varming.ie

W: www.varming.ie

OFFICES

3 Eastgate Road, Eastgate Business Park, Little Island, Cork. T45 KH74
T: +353 (0)21 237 5080

Castle Street, Roscommon. F42 V276
T: +353 (0)90 660 2380

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **James Kavanagh,** CEng, EurIng, BSc (Hons) Eng, DipEng, MCIBSE, MIEI, M Inst D, FConsEI
- **Joseph Greene,** BSc Elect Eng, CEng, MIEI, FConsEI
- **Declan Doyle,** BSc Elect Eng, CEng, MIEI, FConsEI
- **Sean Neary,** BE (Hons), CEng, MIEI, MCIBSE, FConsEI

TOTAL EMPLOYEES

48

ABOUT THE FIRM

Founded in 1946. Linked to Varming offices in London, Edinburgh, Sydney, Copenhagen, Hong Kong and New York. Integrated Quality Assurance Environment & Health and Safety Certification Systems to IS EN ISO 9001:2015, IS EN ISO 14001:2015, IS ISO 45001:2018. EI Accredited CPD Company.

ENGINEERING ACTIVITIES

Mechanical and Electrical Building Services, MV Installation Design, IT & Utility Infrastructure Planning, Energy Efficient Design Expertise, Dynamic Simulation Modelling, BREEAM Assessments, Passive House Design, Infrastructure Planning, Fire Protection & Security Systems Engineering, Regulatory Compliance, Sustainable Design, Energy Modelling, Project Management, Project Supervisor Design Process.

PROJECT TYPES

Healthcare Buildings, Public and Commercial Office Buildings, Residential Buildings, Educational Buildings, Hotels & Conference Centres, Retail Shopping Centres, Classified Laboratories, Cleanrooms, Industrial Production Buildings, Period/Historical Buildings.

WALSH DESIGN GROUP

The Mall, Maryborough Woods, Douglas, Cork.
T12 K8YT

T: +353 (0)21 477 4940

E: reception@wdg.ie

W: www.wdg.ie

OFFICES

Dublin: Level 1, The Chase, Carmanhall Road, Sandyford, Dublin. D18 Y3X2
T: +353 (0)1 524 0191

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Michael Walsh**, BE Dip Mech Eng, Ceng, MIEI, FConsEI

TOTAL EMPLOYEES

13

ABOUT THE FIRM

Walsh Design Group is a leading firm of consulting civil and structural engineers. Established in 1995, the company has built a reputation for excellence in the design, management, and execution of a wide range of projects in the commercial, residential, private and public sectors.

We operate a strict Quality Management System and are ISO 9001:2015 accredited by the NSAI. We have also been awarded Certification with IQNET, the international certification network. In addition, we engage with regular Continuing Professional Development to ensure best practice.

ENGINEERING ACTIVITIES

Civil Engineering; Structural Engineering; Project Management; Drainage Systems; Infrastructure Development; Wastewater Treatment; Assigned Certifier; Design Certifier; PSDP; Employers Representative; Fire Safety Certificates; Disability Access Certificates; Planning Applications; Condition and Dilapidation Reports.

PROJECT TYPES

Medium and Large Residential Developments; Commercial Buildings; Industrial Facilities; Local Authority Infrastructure; Education Facilities; Conservation and Restoration of Historic Buildings; Recreation / Amenity.

WATERMAN MOYLAN

Block S, Eastpoint Business Park, Alfie Byrne Road, Dublin 3. D03H3F4

T: +353 (0)1 664 8900

E: info@waterman-moylan.ie

W: www.waterman-moylan.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEERS

- **Brian McCann,** BE, MSc(Eng), DIC, CEng, MIStructE, FIEI, FConsEI
- **John Moylan,** BE, CEng, MIEI, FConsEI
- **Paul O'Connell,** BE, MS, CEng, MIEI, MICE, FConsEI
- **Richard Osborne,** BEng (Hons), CEng, MIEI, FConsEI

RConsEI - ACEI REGISTERED PROFESSIONAL CONSULTING ENGINEERS

- **Eoghan Loughrey,** BSc(Eng), DipEng, DipBldgConsr, CEng, Eur Ing, MIEI, MICE, RConsEI
- **Mark Duignan,** MA, BAI, CEng, MIEI, RConsEI
- **Michael Conneally,** BE, CEng, MIEI, CPEng, IntPE, RConsEI
- **Niall Coughlan,** BAI, CEng, RConsEI
- **Margaret Dolan,** Tech Cert, BSc(Hons), CEng, MIEI, RConsEI
- **Ian Worrell,** BScEng, DipEng, CEng, MIEI, DipPhysPlg, RConsEI
- **Kevin Farrell,** CEng, MEng, BSc Deg, MIEI, RConsEI

TOTAL EMPLOYEES

102

ABOUT THE FIRM

Waterman Moylan was established in 1980 and joined the Waterman group in 2000. It offers civil, structural, mechanical, electrical and construction related health and safety consultancy and design services for the built environment to its clients.

The firm provides professional services throughout the complete life cycle of an asset, starting from initial surveys and concept planning through to design, delivery, project management, construction monitoring and ongoing maintenance. Its core values are excellence in engineering standards allied to a focus on delivering practical and economic solutions for its clients.

Working with government agencies, local authorities and private sector clients to provide innovative, sustainable and economic solutions across a wide spectrum of business activities, Waterman Moylan has delivered a diverse range of projects across all main market sectors ranging from city centre regeneration to new highway schemes; mixed use development to signature education buildings; large commercial offices to public realm enhancement.

The firm operates an integrated management system which is accredited to ISO 9001 and ISO 14001 to ensure a consistent high quality of service to its clients.

ENGINEERING ACTIVITIES

Civil, Structural, Marine, Traffic, Transportation, Building Services, BREEAM/LEED Assessment, Project Management, Health and Safety.

PROJECT TYPES

Offices, Residential, Retail, Leisure Facilities, Public Buildings, Schools, Hospitals, Industrial Buildings, Conservation, Refurbishment, Roads, Bridges, Drainage, Water Supply, Railways, Site Development, Marinas, Ports and Harbours, Traffic, Waste Management, Surveys.

WEW ENGINEERING LTD

Unit 7c, Cillin Hill, Dublin Road, Leggettsrath, Kilkenny.

R95RYC1

T: +353 (0)56 7763932

E: info@weweng.ie

W. www.wewengineering.ie

FConsEI - ACEI FELLOW PROFESSIONAL CONSULTING ENGINEER

- **Seamus Crickley**, BE, Eur Ing, CEng, FIEI, WEF, RGFI, FConsEI

TOTAL EMPLOYEES

17

ABOUT THE FIRM

WEW Engineering Ltd. is a multi-disciplinary specialist Consulting Engineering Company within the Fingleton White Group. and is dedicated solely to the Water, Bio renewables, Energy/Bio-Energy and Wastewater sectors. WEW is a Corporate Member of Engineers Ireland.

The lead engineers have each worked at the cutting edge of water industry developments for more than 40 years and are recognised by their Engineering colleagues as experts in their fields of specialist consultancy, both in the municipal and industrial sectors. WEW is a registered Enterprise-Ireland and IDA Climate Fund green service provider. The company undertakes process design integrated with MEICA selections to provide the most sustainable answers to any water,wastewater,solids,renewables, and decarbonisation applications . Engineering at WEW can transfer proven R&D and emerging technologies to field level utilising BAT.

Service areas at the preliminary stage include master planning, brownfield plant surveys (process/MEICA), comparative evaluation/reporting of feasible alternatives, leading to a costed Preliminary Report.. At project stage services include detailed process and works design with BIM 3D AutoCAD drawings, specifications, PSDP, project management, certification and management of operational procedures. Or dedicated sustainability projects WEW provide planning/licencing, design and commercial evaluation of bio- energy system concepts, energy modulation to minimise carbon footprint of any facility to CEAP and CSRD compliance, Expertise includes operations to reuse water, organic solids, nutrients and CO2, with conversion to co-products, odour removal, licencing/planning and expert witness representation.

WEW are represented on EBA and BIP EU working groups on green technologies. The Client base includes End Clients, Consulting Engineers, Project Management Companies, Contractors/Developers, International Project Design Agencies on National and International projects.

ENGINEERING ACTIVITIES

Water, Energy, Bio-Energy, Renewables, Sewage, industrial Wastewater, PSDP, Sludge Processing, Project Management, Operations Management.

PROJECT TYPES

Municipal, Industrial, Water, Wastewater, Energy, Bio-Energy, Process design, R&D and emerging technologies, Masterplanning, Brownfield plant surveys (process/MEICA), Comparative evaluation/reporting of feasible alternatives, Detailed process and works design, BIM 3D AutoCad drawings, Certification, planning/design, design and commercial evaluation of bio-renewables systems, Energy modulation to minimise carbon footprint, Carbonation evaluations, treatment, Licencing/planning and expert witness.

ACEI REGISTER OF PROFESSIONAL CONSULTING ENGINEERS

NAME	FIRM
FConsEI - ACEI Fellow Professional Consulting Engineers	
Rafid Ajina	Muir Associates Ltd
Vincent Barrett	Barrett Mahony Consulting Engineers
Shane Belton	BCE, Belton Consulting Engineers Ltd
Daniel Bourke	Ryan Hanley
Kevin Brackfield	Brackfield Consulting Ltd
Colin Brennan	David Kelly Partnership
Nael G. Bunni	Bunni & Associates Ltd
Rory Burke	J.V. Tierney & Company Ltd
Joe Burns	Arup
Caroline Butler	Clifton Scannell Emerson Associates
John J. Campbell	J.J. Campbell & Associates
John Carr	Heavey Kenny Associates
Gerry Carty	RPS Consulting Engineers
John Casey	CORA Consulting Engineers
Niall Clarke	Kavanagh Mansfield & Partners
Andrew Clifford	J.V. Tierney & Company Ltd
Patrick Coleman	P. Coleman & Associates
Paul Condron	PCCE Paul Condron Consulting Engineer Ltd
Anne-Marie Conibear	Egis
John Considine	Barrett Mahony Consulting Engineers
Seamus Crickley	WEW Engineering Ltd
Jerry Cronin	Nicholas O'Dwyer Ltd
Alan Curran	RPS Consulting Engineers
Ray Curran	McElroy Associates
Eamon Daly	Egis
Gregory Daly	GDCL Consulting Engineers Ltd
Marcus Dancey	C S Pringle
Beren De Hora	Fehily Timoney & Company
Bernard Denver	Metec Consulting Engineers
Dermot Donovan	Roadplan Consulting Ltd
Shaun Doody	O'Connor Sutton Cronin
Dermot Doran	MMA Consulting Engineers Ltd
Pearse Douglas	Douglas Carroll Consulting Engineers
Cian Dowling	Axiseng M&E Ltd
Declan Doyle	Varming Consulting Engineers
Gerard Doyle	Cundall Ltd
Geoff Emerson	Clifton Scannell Emerson Associates
Joseph Ennis	JAE Engineering Ltd
Marcus Fagan	Egis
Glen Faherty	MTW Consultants Ltd
John Fahey	Fahey O'Riordan Consulting Engineers
Siobhan Fahey	Siobhan Fahey
Damien Fallon	D. Fallon Consulting Engineers
Mark Fallon	Fallon Design
Peter Fay	Malachy Walsh and Partners (MWP)
Patrick Field	O'Connor Sutton Cronin
Stephen Finch	Semple & McKillop
Emmet Finegan	Doherty Finegan Kelly
Martina Finn	AtkinsRéalis
Edward Fitzgerald	T.J. O'Connor & Associates
Niall Fitzgerald	Horganlynch Consulting Engineers
Garry Flood	Egis
James Fogarty	Environmental Design Partnership
Frank Fox	Frank Fox & Associates
Matt Fox	Moloney Fox Consulting
Emmet Furey	Furey Consulting Engineers Ltd
Brian Gallagher	TOBIN
Ronan Geoghegan	Clifton Scannell Emerson Associates
Ger Gibney	Ryan Hanley
Mark Gill	Fearon O'Neill Rooney
Raymond D. Goggin	Molony & Millar
Eoin Greene	AECOM
Joseph Greene	Varming Consulting Engineers
Thomas Griffin	STEM Consulting Engineers
Danny Groarke	SDS design engineers

NAME	FIRM
Conor Hanney	EirEng Consulting Engineers
John Hayes	DBFL Consulting Engineers
John Hayes	Hayes Higgins Partnership
Joseph Healy	Jennings O'Donovan & Partners Ltd
Paul Healy	O'Connor Sutton Cronin
Paul Henry	CHH Consulting Engineers
Mark Heslin	ORS
Donal Higgins	Hayes Higgins Partnership
Joseph W. Hogan	JWHA
Brian Homan	Homan O'Brien Associates
Anthony Horan	O'Connor Sutton Cronin
Jim Hughes	Fehily Timoney & Company
Michael Hughes	Barrett Mahony Consulting Engineers
Norman Irvine	McCrae Consulting Engineers Ltd (MCE)
Isla Jackson	Civic
Michael Jackson	Hanley Pepper
Caimin Jones	GARLAND
Richard M Jones	Roughan & O'Donovan
Liam Kavanagh	Don O'Malley & Partners Ltd
Brian Kavanagh	GARLAND
James Kavanagh	Varming Consulting Engineers
Patrick Kavanagh	BDP
John Keane	DBFL Consulting Engineers
Raymond F. Keane	RKA Consulting Engineers
Derry Kearney	Cundall Ltd
Gerard Keating	Homan O'Brien Associates
Pádraic Keena	Malachi Cullen Consulting Engineers Ltd
John Kelly	David Kelly Partnership
Cathal Kelly	Doherty Finegan Kelly
Ciarán Kennedy	Barrett Mahony Consulting Engineers
David Kiely	Jennings O'Donovan & Partners Ltd
Mark Kilcullen	Roughan & O'Donovan
Morgan Kilgallen	Kilgallen & Partners Consulting Engineers Ltd
John Killian	Killian Consulting Engineers
Brian Lahiff	GARLAND
James Langan	Langan Consulting Engineers
Joe Lee	J.V. Tierney & Company Ltd
Tim Lenihan	TG Lenihan & Co
Liam Luddy	Arup
Brian Loughrey	MHL & Associates Ltd
David Lynch	LED (Lynch Engineering Design)
Seamus MacGearailt	Roughan & O'Donovan
Ciarán MacIntyre	Carraig Consultants
Brian Madden	O'Connor Sutton Cronin
Willie Madden	RPS Consulting Engineers
Brian Mahony	Barrett Mahony Consulting Engineers
Ken Manley	MHL & Associates Ltd
James Mansfield	Kavanagh Mansfield & Partners
Tom Markham	MTW Consultants Ltd
Pauraic Matthews	Clifton Scannell Emerson Associates
Brian McCann	Waterman Moylan
Gemma McCarthy	Mott MacDonald Ireland
Patrick McCaul	Patrick McCaul Environmental Consulting Engineers Ltd
David McCormack	ORS
Michael McDonnell	TOBIN
John McElvaney	Jennings O'Donovan & Partners Ltd
Tadhg McGillicuddy	MRG Consulting Engineers Ltd
Conor McGinn	SystemCore Building Consultants Ltd
Ciarán McGovern	TOBIN
Grellan McGrath	RPS Consulting Engineers
Martin McGrath	O'Connor Sutton Cronin
David McHugh	RPS Consulting Engineers
Gavin McHugh	Downes Associates
Stephen McQuade	2HQ Consulting Engineers Ltd
Harry Meighan	Roughan & O'Donovan
Gerard Monaghan	Nicholas O'Dwyer Ltd
Peter Monahan	PMCE Ltd
Siobhán Moneley	T.J. O'Connor & Associates
Paul Moran	POGA Consulting Engineers
Peter Morehan	Egis
Ken Moriarty	Torque Consulting Engineers Ltd

NAME	FIRM
Michael Moriarty	T.J. O'Connor & Associates
John Moylan	Waterman Moylan
Roger Mullarkey	Roger Mullarkey & Associates
Tim Murnane	PUNCH Consulting Engineers
Brian Murphy	MHL & Associates Ltd
Cian Murphy	PUNCH Consulting Engineers
Karel Murphy	Horganlynch Consulting Engineers
Paul Murphy	JODA Engineering Consultants
Sean Neary	Varming Consulting Engineers
Glenn Nunan	Glenn Nunan Consulting Engineers (GNCE)
Jim Oliver	Nicholas O'Dwyer Ltd
Eamon O Boyle	EOBA
Simon O'Brien	Homan O'Brien Associates
Ciarán O'Brien	OBA Consulting Engineers
Andy O'Brien	O'Connor Sutton Cronin
Donnachadh O'Brien	Donnachadh O'Brien & Associates Consulting Engineers
Niall O'Callaghan	Kilgallen & Partners Consulting Engineers Ltd
Paul O'Connell	Waterman Moylan
Stephen O'Connor	Barrett Mahony Consulting Engineers
Michael O'Doherty	Delap & Waller
Conor O'Donnell	AGL Consulting
Maurice O'Donoghue	Egis
Clodagh O'Donovan	Arup
Edward O'Donovan	PHM Consulting Ltd
Jerome O'Donovan	JODA Engineering Consultants
John O'Donovan	NJ O'Gorman & Associates
Richard O'Farrell	Engineering Design Consultants Ltd
Niall O'Kane	Patrick McCaul Environmental Consulting Engineers Ltd
Aonghus O'Keeffe	Roughan & O'Donovan
Jonathan A. O'Neill	The McKenna Pearce Practice
Michael O'Reilly	O'Connor Sutton Cronin
Daire O'Riagáin	Roughan & O'Donovan
Brian O'Rourke	O'Connor Sutton Cronin
Richard Osborne	Waterman Moylan
Dermot O'Shea	David Kelly Partnership
Christy O'Sullivan	RPS Consulting Engineers
Joseph O'Sullivan	Paul Twomey & Associates Ltd
Kevin Pepper	Hanley Pepper
Audrey Phelan	Jennings O'Donovan & Partners Ltd
John Pigott	CORA Consulting Engineers
Jose Poveda	Fearon O'Neill Rooney
Dan Reilly	DBFL Consulting Engineers
David Rehill	David Rehill Consulting
Daniel Ring	Lawler Consulting
Kevin Rudden	GARLAND
John Ryan	Sweco
Joseph Ryan	Hanley Pepper
Peter Ryan	Hendrick Ryan + Associates
Valentine Ryan	Ryan Associates Consulting Engineers
Colm Saul	J.V. Tierney & Company Ltd
Patrick Scally	Ryan Hanley
Eimear Sharkey	Malone O'Regan
Arthur Shirran	STEM Consulting Engineers
Brendan Sheehan	BJS Consultants Ltd
Elaine Shields	Ryan Hanley
Michael Slattery	Michael Slattery Associates
Aidan Smith	Clifton Scannell Emerson Associates
Ronan Stokes	PUNCH Consulting Engineers
Pearse Sutton	CS Consulting Group
Aislinn Tate	JAE Engineering Ltd
Jim Thorpe	Roughan & O'Donovan
Sinéad Timoney	Fehily Timoney & Company
Kevin P. Tracey	A1 ENG
Ciaran Wallace	Hugh Munro & Co Ltd
Michael Walsh	Walsh Design Group
Stephen Walsh	J.V.Tierney & Company Ltd
Barry Williams	Mott MacDonald Ireland
Fergus Whelan	Malone Group
Gordon White	Gordon White Consulting Engineers
Robert White	Engenuiti Consulting Engineers

NAME	FIRM
RConsEI - ACEI Registered Professional Consulting Engineers	
Niall Barrett	CS Consulting Group
Declan Barry	O'Connor Sutton Cronin
Billy Bohane	Fehily Timoney & Company
Brendan Brice	RPS Consulting Engineers
Trevor Byrne	Fehily Timoney & Company
Diarmuid Cahalane	T.J. O'Connor & Associates
Tom Clayton	Fehily Timoney & Company
Liam Clear	T.J. O'Connor & Associates
Michael Conneally	Waterman Moylan
Eamon Cox	RPS Consulting Engineers
David Coughlan	PUNCH Consulting Engineers
Niall Coughlan	Waterman Moylan
Ian Crehan	O'Connor Sutton Cronin
Bryan Dolan	Axiseng M&E Ltd
Margaret Dolan	Waterman Moylan
Paul Doyle	Donnachadh O'Brien & Assoc Consulting Engineers
Ronan Doyle	T.J. O'Connor & Associates
Mark Duignan	Waterman Moylan
Simon Dunne	GARLAND
Kevin Farrell	Waterman Moylan
Gene Flynn	Fehily Timoney & Company
Ben Gaffney	Egis
Liam Heffernan	Barrett Mahony Consulting Engineers
Mark Hogan	O'Connor Sutton Cronin
Richard Kiernan	Donnachadh O'Brien & Assoc Consulting Engineers
Peter King	Roughan & O'Donovan
Alan Lambe	Donnachadh O'Brien & Associates Consulting Engineers
Eoghan Loughrey	Waterman Moylan
Eddie Lyons	O'Connor Sutton Cronin
Catriona McAuliffe	T.J. O'Connor & Associates
Niall McCaffrey	T.J. O'Connor & Associates
Ciaran McGee	Roughan & O'Donovan
Gareth McElhinney	RPS Consulting Engineers
Ronan McElwain	T.J. O'Connor & Associates
Mark McEntee	CS Consulting Group
Rachel McKenna	Axiseng M&E Ltd
Luke McNamee	CS Consulting Group
Paul McSteen	O'Connor Sutton Cronin
John Meade	T.J. O'Connor & Associates
Michael Minehane	RPS Consulting Engineers
Tommy Morey	GARLAND
Johan-Theo Myburgh	PUNCH Consulting Engineers
Corwun O'Brien	Malone O'Regan
Eoin O'Catháin	Roughan & O'Donovan
Rowan O'Callaghan	RPS Consulting Engineers
James O'Neill	Fehily Timoney & Company
Kevin O'Riordan	PUNCH Consulting Engineers
Paul O'Riordan	RPS Consulting Engineers
Ralmar Roberts	PUNCH Consulting Engineers
Matthew Ryan	Roughan & O'Donovan
Andrew Thomson	Roughan & O'Donovan
Cian Twomey	CS Consulting Group
Edward Warren	Roughan & O'Donovan
Brian West	BDP
Cormac Woods	AtkinsRéalis
Ian Worrell	Waterman Moylan

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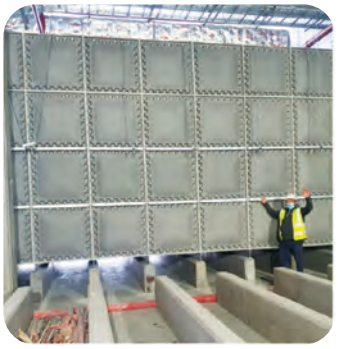

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www.acei.ie