THE O'REILLY GROUP

Building a Sustainable Future

2023 – 2050

Introduction

In today's rapidly changing world, as we confront the growing urgency of climate change, businesses must take on the crucial responsibility of mitigating their environmental impact.

At the O'Reilly Group, we understand the urgency of this issue, and we are committed to doing our part to build a more sustainable future. We have developed a comprehensive sustainability plan that outlines our roadmap to achieving carbon neutrality by 2050.

We are fully aware of the challenges that climate change will bring to all our lives, particularly those most at risk from increased temperatures and extreme weather.

The O'Reilly Group is committed to forging a sustainable and environmentally responsible path forward. With our sights set on carbon neutrality by 2050, we're championing energy efficiency and exploring new ways to minimise our carbon footprint.
We know it won't be easy but with the right strategies and technology, we can make the necessary changes, together, to build a greener future

Emmet Cosgrove

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CEO, O'Reilly Group

Sustainability Plan CO_2

At the O'Reilly Group, our commitment to a sustainable future is rooted in six key principles. These principles drive our actions and policies, keeping us at the forefront of industry sustainability. We're focused on protecting the environment and actively working towards net-zero emissions by 2050.

Awareness: We acknowledge the causes and effects of climate change and understand the necessity for everyone to mitigate its consequences.

Action: We implement targeted initiatives to reduce our carbon footprint, including energy-efficient processes, sustainable sourcing of materials, and minimising waste.

Innovation: We continuously explore new technologies and methods to improve our environmental efficiency and lessen our ecological impact.

Reporting: We annually review our sustainability performance and report our findings to our board of directors.

Compliance: We aim to not only comply with but exceed national legislation and goals for carbon reduction, thereby becoming industry leaders in the decarbonisation of all our operations.

Collaboration: We ensure all our employees understand our sustainability policy and engage with customers, suppliers, and the wider community to share knowledge, promote best practices, and drive positive change collectively.

Understanding & Addressing Emissions

At the O'Reilly Group, we recognise the critical role the construction sector plays in combating climate change, and we are committed to making a positive contribution through the incorporation of sustainable practices in our operations. Our Sustainability Plan prioritises the use of eco-friendly materials and the application of cutting-edge construction methods, resulting in a substantial reduction of our carbon footprint. We also understand the significance of identifying and addressing the different sources of carbon emissions, which can be organised into three distinct scopes.

SCOPE 1

These emissions result directly from our operations, such as fuel combustion in vehicles or on-site heating. We are taking steps to reduce these emissions by adopting electric vehicles, transitioning to biomass and heat exchange for heating precast beds, and replacing diesel forklifts with electric models.

SCOPE 2

These emissions stem from the electricity we consume in our operations. We are committed to minimising scope 2 emissions by generating power primarily from roof-mounted solar panels, purchasing the remainder from renewable electricity providers, and implementing virtualisation technology to optimise server performance and minimise power consumption.

SCOPE 3

These emissions are indirect and come from activities relating to our operations, such as purchases from suppliers, transport and distribution. We aim to reduce scope 3 emissions by using low-carbon cement like GGBS, incorporating recycled inputs and sustainable sourcing practices, and employing the most efficient Euro 6 trucks for delivering precast products.

Our Journey So Far

As we reflect on O'Reilly Group's sustainability journey, we are proud of the progress made in recent years. We've successfully reduced our emissions per unit of production by nearly 25% through targeted initiatives and a strong commitment to minimising our environmental impact. In this section, we'll explore our past and current efforts, showcasing our accomplishments and steps taken towards a greener future.

REDUCTIONS

We have achieved a reduction of 79,665.64 tons in our carbon footprint since 2019

INITIATIVES

We have taken more than 50 sustainable actions to reduce our environmental impact.

EFFICIENCY

Our fleet has increased efficiency by approx. 24%, now operating at 2.4 litres per kilo tonne.

IN THE LAST DECADE, O'REILLY CONCRETES EMISSIONS PER UNIT OF PRODUCTION HAVE DECREASED BY

25%

Our Journey So Far

Afforestation & Rewilding

In 2021, the O'Reilly Group made a significant step towards addressing the pressing issue of climate change by embarking on an ambitious afforestation project at the Oakstown plant in Trim, Co. Meath. This initiative involved planting approximately 15,000 trees, consisting of a diverse mix of coniferous and spruce species, spread across 11 acres of land within the facility.

The primary objective of this afforestation project is to contribute to carbon sequestration efforts, helping to offset our carbon footprint. The forest is expected to absorb up to 170 tonnes of CO_2 annually, playing a vital role in mitigating the impacts of climate change. Additionally, this project will not only enhance the local environment but also promote biodiversity by creating a thriving habitat for various wildlife species.

Waterhen and Mallard at the Larchfield Site

Ongoing Rewilding Project at the Larchfield Site

As the trees flourish, the Oakstown plant will become a vibrant symbol of O'Reilly Group's environmental commitment. This afforestation initiative is a testament to our ongoing commitment to sustainability, as we strive to create a lasting positive impact on our planet for future generations to inherit.
Furthermore, we have ambitious plans to expand our afforestation initiatives to encompass other company facilities.

Our Journey So Far

Ground Granulated Blast-furnace Slag (GGBS)

For over two decades, O'Reilly Concrete has been a leader in the shift towards environmentally-friendly, low-carbon cement alternatives.

Since 1995, O'Reilly Concrete has been substituting ordinary Portland Cement (OPC) with GGBS from Ecocem. GGBS is a by-product from steel manufacturing with an impressively low carbon footprint of only 55 kg per tonne.

By using GGBS, O'Reilly Concrete saves up to 900 kg of CO_2 for each tonne of cement replaced, reducing their carbon emissions by as much as 6,444 tonnes annually.

30% We use up to **30% GGBS** in our concrete mix for our prestressed products, precast concrete, and paving products.

838 One project alone in 2021 that was completed **using Ecocem GGBS saved around 34 tonnes of CO_2**, equivalent to **838 trees** growing for 10 years!

x16 A cement with a carbon footprint up to **16 times lower** than other cements

The use of GGBS varies across O'Reilly Concrete's products – from 15% in prestressed floors to 30% in structural walls, and up to 50% in ready-mix concrete for foundations. Recent trials have even demonstrated the successful production of certain concrete elements using 100% GGBS with two chemical activators.

O'Reilly Concrete continues to test and maintain rigorous quality control to further increase the proportion of GGBS used relative to OPC, potentially doubling the amount of CO_2 saved in the future.

Our Journey So Far

Lower Carbon Cements

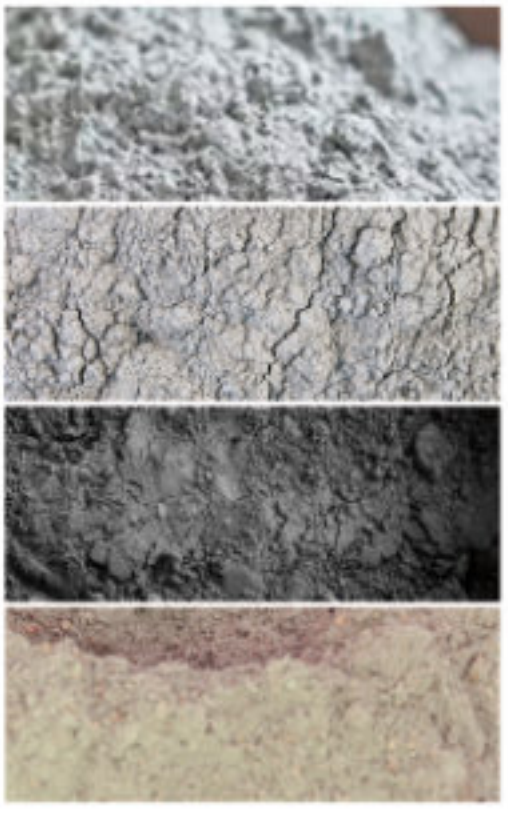
we understand that many of the carbon reduction measures we are implementing would not be possible without the help of our suppliers and customers. To reduce our carbon intensity, one of our key cement suppliers has committed to reducing emissions per tonne by 33% by 2030. This could help us save up to 14,000 tonnes of CO2 annually at 2022 production levels - reducing our Scope 3 emissions significantly. Furthermore, they plan to achieve net-zero status by 2050 which would reduce our emissions from cement alone by 24,000 tonnes.

Supplementary Cementitious Materials (SCMs)

In collaboration with its key suppliers, O'Reilly Concrete is actively exploring the use of new low-carbon SCMs in its products. This sector is on the verge of a technological revolution that will produce significant carbon savings over the next two decades, securing concrete's place as a leading construction material for the future.

Emerging cement technologies, such as pozzolanic clays, micro-silica/silica fume, and geopolymers/alkali-activated binders, are currently in the early stages of development but hold great potential in cutting carbon emissions from cement production.

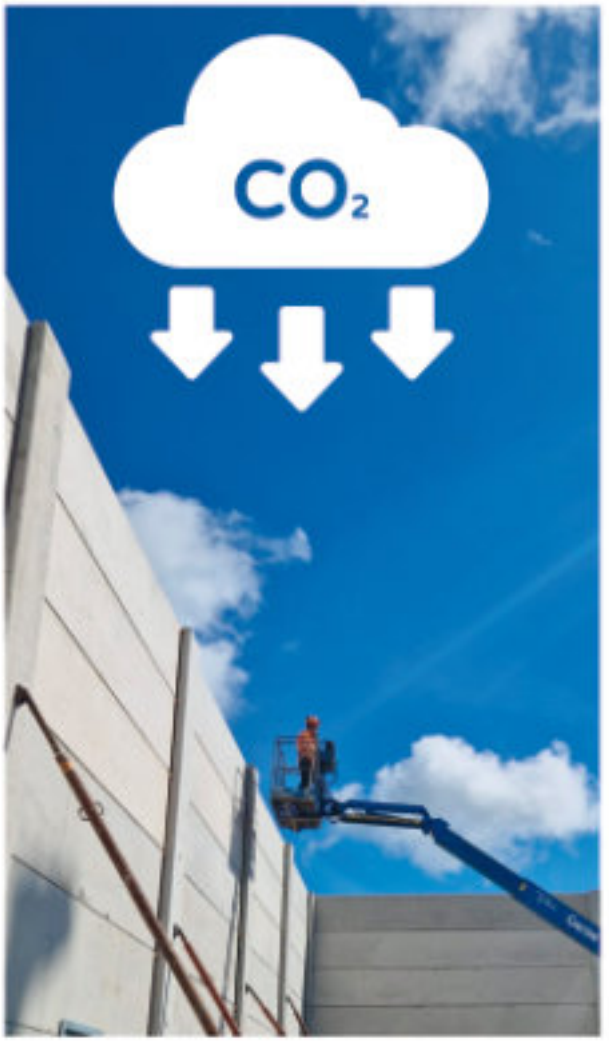
O'Reilly Concrete's commitment to integrating GGBS and researching SCMs demonstrates its dedication to creating a more sustainable future in the construction industry. Their innovative approach sets a positive example for other companies in the Irish and UK markets to follow.



Our Journey So Far

Carbon Capture, Use, and Storage (CCUS)

A key strategy in our pursuit of decarbonising our operations involves capturing carbon dioxide from industrial processes and incorporating it into our concrete, preventing its release into the atmosphere.



This well-established method involves injecting controlled doses of CO2 into fresh concrete, enhancing the performance of the finished product. Upon injection, the CO2 immediately undergoes mineralisation and becomes permanently embedded in the concrete.

In addition to sequestering vast amounts of captured CO2 (up to 250 tonnes per batch plant annually), the mineralisation process boosts the final compressive strength of the concrete, allowing for a slight reduction in cement usage and a subsequent decrease in CO2 emissions. This will help us strike a balance between our carbon emissions and reductions, advancing our progress towards Net Zero.

Transport Efficiency

At O'Reilly Concrete, we collaborate with our logistics partners to guarantee efficient transportation that minimises CO2 emissions. The latest Euro 6 engines offer a fuel efficiency improvement of over 25% compared to older trucks. We transport precast and paving products using these highly efficient Euro 6 trucks, which are monitored via satellite navigation, further diminishing our environmental impact. Moreover, we endeavour to hold meetings remotely and enable working from home whenever possible, reducing the need for unnecessary travel.

Our Journey So Far

Circular Economy

We are firmly committed to embracing a circular economy and capitalising on the advantages of recycling. We recycle waste concrete by crushing it for reuse, and any surplus fresh concrete is transformed into retaining blocks. Additionally, we utilise recycled plastic in the production of Barleystone paving brick covers, and all our steel reinforcement bars are sourced from renewable materials.

Concrete is 95% recyclable and naturally experiences carbonation, absorbing atmospheric CO2 throughout its lifespan. By crushing and repurposing concrete in secondary products, we further reduce emissions. Furthermore, all reinforcing steel in our products is made from recyclable steel.

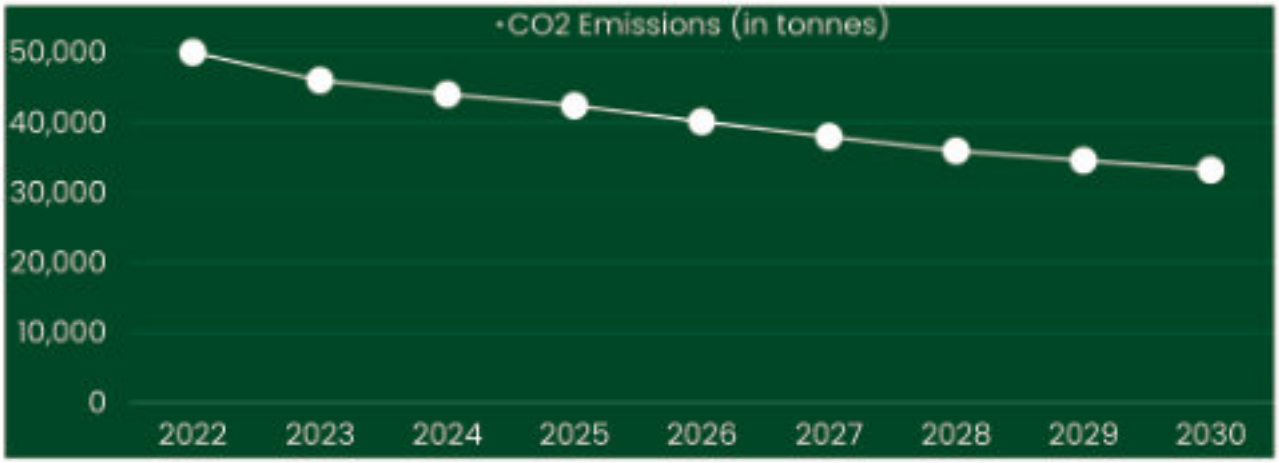
We are working towards sourcing 80% of the water used in our concrete production from harvested rainwater, a renewable resource. Our rainwater harvesting systems employ concrete tanks supplied by our sister company, O'Reilly Oakstown Environmental.

In line with our goal to reduce Scope 2 emissions, we aim to generate 100% of our electricity needs well before our 2050 Net Zero target. As an initial step, we are installing solar panels on all production buildings, with the first two projects set for completion by early autumn. Additionally, we will introduce charging points for electric vehicles (EVs) at all company locations, supporting our transition from fossil-fuelled light vehicles to EVs.

We constantly strive to reduce and recycle waste from our production processes. All waste timber is shredded to provide a source of biomass electricity. Waste to landfill has been reduced by 90% in recent years and we are well on our way to eliminating it completely.

Next Steps

2023 - 2030



Over the next seven years, the potential CO2 emissions reduction can be achieved through various strategies in cement production and facility management. These strategies use already available methodologies such as further substituting GGBS for OPC, lowering the carbon intensity of cement, installing rooftop solar panels, utilising heat exchange units, adopting CarbonCure technology, replacing diesel forklifts with electric alternatives, and incorporating a biomass burner. By implementing these measures, we can potentially reduce CO2 emissions by up to 16,800 tonnes annually, based on current activity levels. Furthermore, we are exploring additional initiatives such as waste reduction and recycling programs, sustainable sourcing of materials, and employee education and engagement programs, to further enhance our sustainability efforts and reduce our environmental impact.

By increasing the use of GGBS, we can reduce CO2 emissions by a further 5,490 tonnes annually.

Reducing the carbon intensity of remaining cement will help reduce emissions by 11,800 tonnes per year.

By replacing diesel forklifts with electric forklifts, we can reduce emissions by 43 tonnes annually.

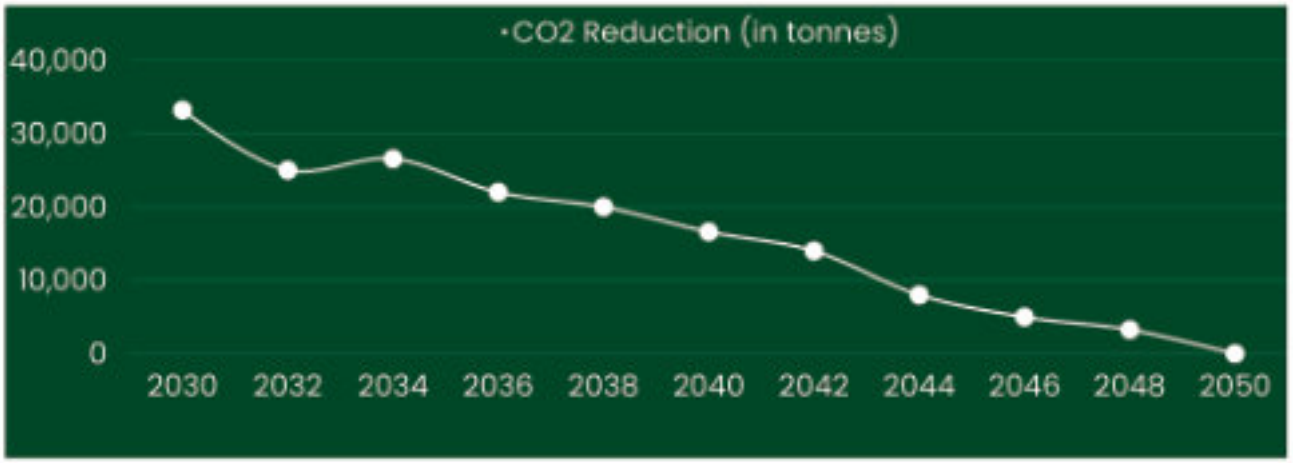
We will install heat exchange units to improve energy efficiency, resulting in a reduction of 104 tonnes of CO2 emissions per year.

We plan to install rooftop solar panels that can generate 758 kWh of electricity, reducing CO2 emissions by 294 tonnes per year.

We intend to roll out Carbon Capture and Reuse in all our batching plants which can sequester as much as 250 tonnes of CO2 per year

Road to Net Zero

2030 - 2050



Between 2030 and 2050, the O'Reilly Group together with our suppliers Will continue to implement a series of continuous improvements to help us achieve our goal of becoming a net-zero company by 2050. During phase 2 of our plan to reduce CO2 emissions, we will focus on implementing longer-term measures to achieve carbon neutrality by 2050. This will require significant investments in new technologies and processes that can help us reduce our emissions while continuing to provide the high-quality construction and infrastructure services that our clients depend on. Some of the strategies we are considering include the use of carbon capture and storage technologies, the development of new low-carbon construction materials, and the deployment of renewable energy sources at our construction sites and facilities. We believe that these measures will be critical to achieving our goal of carbon neutrality by 2050 and building a more sustainable future for generations to come.

Wind Turbines x 2: 2,000 tonnes of CO2 reduction through the implementation of wind energy technology.

Derv; 1,000 tonnes of CO2 reduced by electrification of road transport

Quarry and production vehicles: 2,000 tonnes of CO2 saved annually by converting to EV's

CCUS x 4; 1,000 tonnes of CO2 reduced annually through the use of Carbon Capture and Use.

Carbon Neutral Cement: Reduction of 24,000 tonnes of CO2 through innovative cement production techniques.

Solar farm: 1,000 tonnes of CO2 reduction through the installation of a solar energy farm

Embracing Concrete's Sustainable Potential

Concrete is not only a natural choice for construction due to its incredible durability, as demonstrated by the Pantheon in Rome, built using concrete some 2000 years ago, but also for its numerous sustainable properties.

Versatility

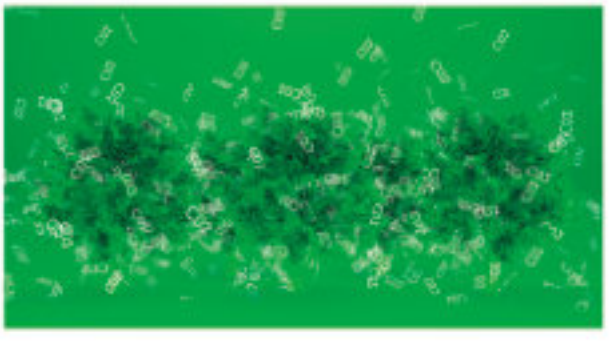
Concrete offers unparalleled versatility in construction, as it can be shuttered or shaped in molds to create an infinite variety of profiles for aesthetic or structural purposes. Often, the concrete surface is left exposed to display the sheer beauty of the finished result.

Durability

Few construction materials can match concrete's longevity. Concrete structures are resistant to burning, rusting, and rotting, and they are largely weatherproof. As a result, concrete buildings will always have lifespans that far exceed those using other materials.

Carbonation

Carbonation is the process through which concrete absorbs up to 25% of the C02 used in its manufacture throughout the course of its lifetime. This ability to sequester carbon is accelerated when concrete is crushed, resulting in even greater environmental benefits.



Embracing Concrete's Sustainable PotentiaL

Locally Sourced Materials

Most concrete is made with locally sourced sustainable aggregates and delivered within an average of 18 kilometres. Although Ordinary Portland Cement (OPC) is currently the most commonly used binder, the use of supplementary cementitious materials (SCMs) with substantially lower carbon intensities is on the rise.

Thermal Qualities

As homeowners transition from fossil fuel boilers to heat exchange pumps, they can take advantage of concrete's inherent thermal mass - its ability to absorb and retain heat. This property helps keep homes warm in winter and cool in summer.

Recyclability

Concrete is 100% recyclable. When crushed, its constituents can be repurposed for various applications, including as aggregates for producing new batches of concrete when properly graded. Additionally, rebar used to reinforce concrete can be removed prior to crushing for recycling.

Customer Benefits

Innovative Technology

At O'Reilly Concrete, we utilise advanced technology to enhance sustainability and provide added benefits to our customers. By employing Building Information Modelling (BIM) and cutting-edge software such as Tekla, AutoCAD, FloorCAD, iThesis, Sofistik, and TEDDs, we optimise our operations, minimise our environmental impact, and deliver top-quality results.

Efficient organisation and management of factory operations and resources are made possible through the use of accurate, detailed model data. This ensures seamless communication and successful project delivery. With shareable information, we can plan delivery schedules, erection sequences, and more, ultimately saving our customers time and money.

MODELLING

We create information-rich 3D models of all structures and materials. The model contains all the information that is needed to manufacture and construct the structure: part geometry and dimensions, profiles, materials, and so on.

PROJECTS

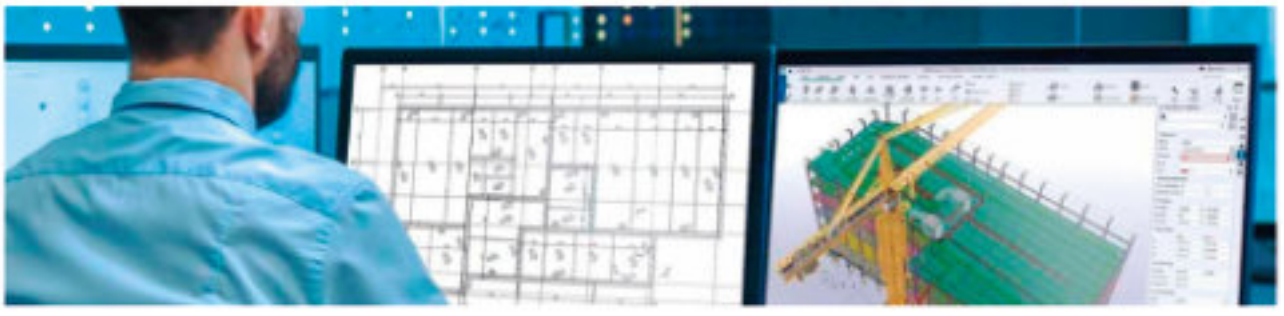
We can efficiently organise and manage factory operations and resources based on accurate detailed model data. This allows us to keep everyone in sync with up-to-date project and production information.

LOGISTICS

Working with detailed, shareable information enables fluent communication for successful project delivery. We can use this information to plan delivery schedules, erection sequences, and much more.

Our investment in low-carbon concrete mix designs and process optimisation results in superior, more sustainable products. We create information-rich 3D models of structures and materials, which contain all essential details for manufacturing and construction.

Tekla AUTOCAD SOFiSTiK iThesis FloorCAD



Customer Benefits

Offsite Manufacturing

Embracing the efficiencies of Offsite Manufacturing with Architectural Wall Panels (AWP), O'Reilly Concrete uses Lean Production to offer a bespoke solution designed by our in-house team to address the unique needs of any project. With options for single-skin panels or insulated sandwich wall panels, our AWP systems elevate the sustainability of the construction process through various key advantages:

Reduced Construction Time
Offsite manufacturing allows for the simultaneous progress of onsite groundwork and panel production, resulting in a more streamlined construction process and reduced project timelines.

Enhanced Energy Efficiency
The incorporation of insulation in sandwich wall panels improves the thermal performance of buildings, reducing energy consumption and lowering greenhouse gas emissions.

Increased Efficiency
The controlled environment of offsite manufacturing enables precise production and quality control, ensuring that panels meet exact specifications and reducing the need for time-consuming adjustments on-site.

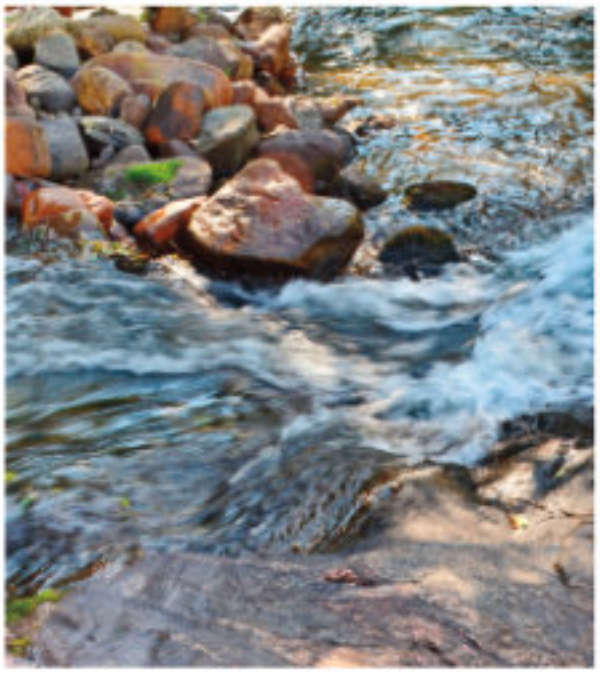
Waste Reduction
Offsite manufacturing minimises material waste by utilising precise production techniques and recycling excess materials. This approach reduces the environmental impact of construction waste and contributes to a cleaner job site.

Environmental Responsibility

From O'Reilly Oakstown Environmental and Barleystone Paving to O'Reilly Concrete and Precast, we are dedicated to reducing our environmental impact through the implementation of sustainable practices and initiatives.

Oakstown Environmental

It is a little-known fact that the O'Reilly Group are one of the few concrete manufacturers with a dedicated environmental division- O'Reilly Oakstown Environmental. Almost everything we do is dedicated to a single goal- to take foul or polluted water and convert it into clean uncontaminated water. Whether that be sewage from a domestic house or oily water from industrial premises, we manufacture, install and service the systems which render it clean. We also make rainwater harvesting systems for companies who wish to avail of the benefits of free naturally soft water and avoid water charges.



O'Reilly Oakstown Environmental-

HELPING HOMEOWNERS AND BUSINESSES MEET THEIR ENVIRONMENTAL OBLIGATIONS FOR OVER 50 YEARS

Barleystone Paving

Barleystone Permeable Paving is designed to be used as part of a sustainable drainage system (SuDs) to deal with excess run-off during heavy rainfall. As such, it helps to prevent water pollution and flooding in urban areas. Our rainwater harvesting systems from Oakstown can even be used to collect and filter water for repurposing in household and garden use, making it a cost-effective and environmentally responsible solution.

Quality & Credentials

The O'Reilly Group places a strong emphasis on compliance and quality across all of our businesses. We adhere to the highest industry standards and continuously seek out opportunities to improve our processes and products. Our commitment to quality has been recognised through various accreditations and certifications.

NSAI
National Standards Authority of Ireland
Údarás Um Chaighdeáin Náisiúnta na hÉireann

HEALTH & SAFETY
I.S. ISO 45001:2018
NSAI Certified

QUALITY
I.S. EN ISO 9001:2015
NSAI Certified

mpa
British Precast
Member

Construction Industry Federation

Irish Concrete Federation
Set for life

IQNet
THE INTERNATIONAL CERTIFICATION NETWORK

CHAS Accreditation
CHAS
Elite

CE

iosh
Chartered Safety and Health Practitioner

iowa
Irish Onsite WasteWater Association
www.iowa.ie

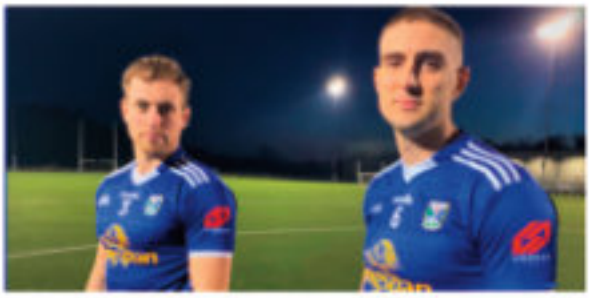
BUILDER'S PROFILE

Constructionline
Gold Member

Achilles
BuildingConfidence Advanced
Member

Community & Our People

The O'Reilly Group is embedded in the communities in which we work. We take particular pride in encouraging and supporting young sports teams, local charities, and students in their pursuits. As one of the largest employers in the Northeast of Ireland, we believe that our people are our most valuable asset, and we are committed to providing them with a safe and healthy workplace and community.



We also regularly host tours and talks for students and professionals to share our expertise and inspire the next generation of construction professionals. We believe in the endless possibilities in the world of engineering and construction, and we're always excited to share our knowledge and experience.