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**ORAN PRE-CAST LTD**  
TOTAL PRE-CAST SOLUTIONS

## Company Profile - Oran Pre-Cast Ltd.

Oran Pre-Cast was founded in 1981 and has grown to be one of the largest and most progressive indigenous pre-cast manufacturers in the country. Its extensive facility includes manufacturing and design offices on a forty-acre site in Deerpark Industrial Estate in the thriving heartland of Galway.

The facility is ideally located to serve the company's extensive nation-wide customer base. Oran Pre-Cast manufactures, in a factory-controlled environment, quality concrete products for industrial, commercial and domestic applications, guaranteeing the highest standard of dimensional accuracy and surface finish. All reinforcements are accurately located and products always meet customer specifications.

Oran Pre-Cast's range of products includes hollowcore flooring, beams and columns for portal and industrial frames, stairs, as well as twin wall and plate flooring. The Company is now in a position to offer a 'Total Pre-Cast Solution' to its customers.

In 2004, the Company opened a fully automated carousel plant to manufacture twin wall and plate flooring. The structural system offers a cost effective alternative to load bearing block work and in-situ concrete walls and floors.

CAD designed panels are plotted automatically on a steel pallet, reinforcement is cut and placed robotically and concrete is poured and vibrated using high frequency vibrators that ensure excellent compaction and finish.

Oran Pre-Cast's guiding philosophy is that the Company exceeds customer expectations on every project. It is this belief that drives it to continuously deliver quality products on time and to meet customer commitments. The Company's highly experienced and motivated staff are involved at every step of the project, from design right through to erection, providing project management expertise throughout.

**Having decided to integrate pre-cast concrete into the design of a building, Oran Pre-Cast's customers can expect to enjoy the following benefits:**

- Professional and experienced project management from an established name in the pre-cast concrete sector
- On-time delivery from a supplier using modern production facilities and systems
- Quality products and services driven by an ISO 9000 Quality Management System
- Reduced site operations and consequent cost savings derived from a range of pre-cast product applications
- Strong commitment to health and safety of its employees and customers



## Product Portfolio

### Twin Wall

Every architectural task requires a specific solution. Therefore each wall is unique with individual dimensions, shapes and openings. The twin wall elements consist of 2 x 65mm thick concrete plates separated by a lattice girder to form a core between the plates. After the walls are erected on site, the core is filled with in-situ concrete to complete the composite wall.

**The typical applications of twin walls are:** Party Walls, External Walls, Lift Shafts, Stairwells and Retaining Walls

#### Advantages of Twin Walls

- Considerable time saving on-site
- Reduced labour on-site
- Reduced drying out time for buildings
- Excellent sound and fire resistance
- Health & Safety benefits due to fewer personnel on-site
- No limitation to structural options
- Parts like windows, door-frames and electricity outlets are available ex-factory
- Smooth surfaces inside and outside, ready for decorating and painting. No plastering needed
- Just-In-Time delivery



### Plate Flooring

The plate flooring consists of a 65mm thick reinforced concrete plate incorporating a steel lattice girder. It is supported in its temporary state, prior to the pouring of the in-situ concrete, by lattice girders and temporary propping. The propping is then removed once the concrete has reached the required strength.

#### Advantages of Plate Flooring

- 2.9m wide elements resulting in fewer joints
- The absence of any negative camber, typically associated with pre-stressed concrete flooring, reduces finishing time
- Integrated openings and notches for service risers and other service penetrations
- Excellent sound insulation and fire resistance of the solid concrete slab
- The automatic manufacturing process allows flexibility to produce elements with complex geometry
- The thin 65mm pre-cast elements facilitate the laying of plumbing and electrical services on top of the elements, prior to pouring the in-situ concrete



### Hollowcore Flooring

Hollowcore Flooring is available in standard 1,200mm widths and in depths of 150, 200, 250, 300, 400 and 500mm. Flooring can be used in all types of buildings, both residential and commercial. Oran Pre-Cast can provide a span of up to 19m long (500mm deep) and is ideal for commercial buildings such as car parks and mixed-use developments.



### Columns/Beams

Oran Pre-Cast can produce a portal frame that can achieve clear spans of up to 35m. The system, when incorporated with columns and roof beams, offers a viable alternative to traditional methods in the design of commercial and industrial units. Using the total portfolio of products Oran Pre-cast can offer a 'Total Pre-cast Solution' to meet the needs of main contractors and developers.



### Stairs

Stairs or combined stairs and landing units are produced to a high quality smooth finish. These are manufactured using a fully adjustable steel stair moulding system.



## Oran Pre-Cast at the Cutting Edge of Design Technology

### An introduction to 3-D Design Package

Pre-Cast concrete detailing has taken a giant leap in development. In 2005 Oran Pre-Cast introduced a 3-D design package into its design capability, which is the first real parametric 3-D modelling software solution for precast concrete designers and fabricators.

This comprehensive software application provides a single integrated environment for daily work in pre-cast concrete detailing. Oran Pre-Cast works with intelligent 3-D computerised models that contain all the reinforcements and information required for manufacturing and construction.

Oran Pre-Cast's design team has an extensive knowledge of pre-cast concrete applications and is available at all times to assist and advise on client design and manufacturing requirements. The design team works closely with architects, consultant engineers and main contractors, resulting in innovative solutions for each client.

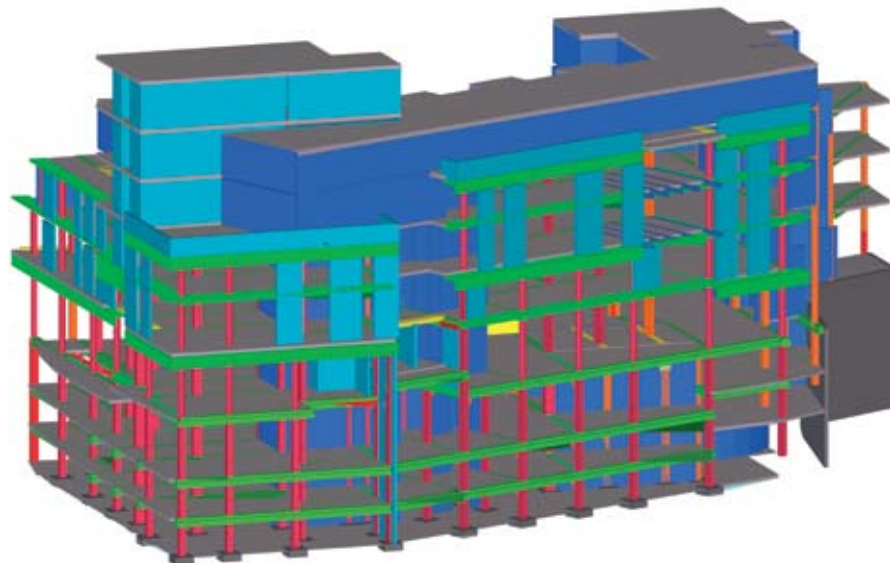
### Advantages of using 3-D design

- View a 3-D model and visualise your complete project
- Understand the potential and flexibility of pre-cast using 3-D modelling
- Make changes quickly and efficiently at design stage
- Check and correct the most complex details
- Enjoy greater accuracy and traceability of order
- Enable clients to reduce project lead-time

### The use of 3-D Models

The use of 3-D Models is the ultimate tool when rationalising a building's design elements. With such advanced design systems, repetition or standardisation is not a factor for pre-cast concrete. The resulting accuracy of all the components delivered to site ensures compliance with the site programme.

Oran Pre-cast provides 3-dimensional models of all parts of the building, showing how it will be constructed. This provides invaluable information to all members of the design team including architects, engineers and mechanical and electrical consulting engineers.



Citypoint - 3-D Drawing - 9 Storey Building



## CITYPOINT - PROSPECT HILL

Project: Citypoint - Prospect Hill Galway

Client: GK Developments

Architect: Sean Dockery & Associates

Engineer: HGL O'Connor

Type of Structure: Mixed Use Development

Pre-Cast Elements: Total Pre-cast solution using Columns, Beams, Twin Wall, Hollowcore and Stairs

Pre-Cast Structure Value: Circa €4,300,000

Start Date: January 2008

Completion Date: June 2008

## OSPREY HOTEL

Project	Osprey Hotel
Client	Kildare Estates
Architect	Kildare Estates
Engineer	Burke Jenkins
Type of Structure	Hotel & Mixed Use Development
Pre-Cast Elements	Columns, Beams, Twin Wall, Hollowcore and Stairs
Pre-Cast Structure Value	Circa €1,600,000
Start Date	October 2002
Completion Date	June 2003



## DUNNES STORES CAR PARK - ENNIS

Project	Dunnes Stores Ennis Car Park
Client	John Sisks & Sons
Architect	Keenan Lynch Architects
Engineer	Kavanagh Mansfield
Type of Structure	Car Park
Pre Cast Elements	Total Pre-cast Solution using Columns, Beams, Twin Wall, Hollowcore and Stairs
Pre-Cast Structure Value	Circa €2,000,000
Start Date	April 2007
Completion Date	June 2007

## INTEL BUILDING - SHANNON

Project	Intel Building Shannon
Client	John Sisks & Sons
Architect	Newenham Mulligan & Associates
Engineer	Michael Punch & Partners
Type of Structure	Office Block
Pre Cast Elements	Columns, Beams, Hollowcore and Stairs
Pre-Cast Structure Value	Circa €700,000
Start Date	February 2000
Completion Date	March 2000



## SHELBOURNE HOTEL - DUBLIN

Project	Shelbourne Hotel
Client	McNamaras
Architect	HKR Architects
Engineer	Barrett Mahony Consulting Engineers
Type of Structure	Refurbishment of Hotel
Pre Cast Elements	Hollowcore Flooring
Pre-Cast Structure Value	Circa €300,000
Start Date	January 2006
Completion Date	May 2006





## ATHLONE TOWN CENTRE

Project	Athlone Town Centre
Client	JJ Rhatigan
Architect	Murray O Laoire Associates
Engineer	O'Connor Sutton Cronin
Type of Structure	Shopping Centre, Car Park, Hotel & Residential Development
Pre Cast Elements	Twin Wall
Pre-Cast Structure Value	Circa €4,900,000
Start Date	March 2006
Completion Date	October 2007

## CENTREPOINT - GALWAY

Project	Liosbaun Galway
Client	Burkeway Construction
Architect	O'Connor, Keogh & Mulcaire Architects
Engineer	HGL O'Connor
Type of Structure	Apartments / Car Park
Pre Cast Elements	Columns, Beams, Twin Wall, Hollowcore and Stairs
Pre-Cast Structure Value	Circa €2,000,000
Start Date	July 2004
Completion Date	November 2004





## SHEARWATER CARLTON HOTEL

Project: Shearwater Plaza Hotel

Client: Glenauscaul Developments

Architect: Fergus Carey & Associates

Engineer: Kyne & Clyne Engineering Consultants

Type of Structure: Hotel & Mixed Use Development

Pre Cast Elements: Total Pre-Cast solution using Columns, Beams, Twin Wall, Hollowcore and Stairs

Pre-Cast Structure Value: Circa €5,500,000

Start Date: August 2006

Completion Date: February 2007



## Glenascaul Developments Ltd

Glenascaul Developments Ltd realised that the scale of its project (development of a 100 bedroom hotel with Spa & Conference facilities including retail and apartment units) in terms of concrete volumes, would require a different approach than that of the traditional build. Concrete was the preferred building material and Oran Pre-Cast had the product range most suited to the client's requirements. The Company demonstrated via previous completed projects its expertise in design, manufacture and delivery of a total Oran Pre-Cast solution.



The Carlton Shearwater Plaza Hotel

## Oran Pre Cast Delivers A Total Pre-Cast Solution

### Why choose a Pre-Cast solution?

- Client deals with one company
- All design and production planning carried out in advance
- Client is assured of price and time scale in advance
- Joint consultation between architects, engineers and clients guarantees superb final product
- Speed of erection on-site, saving time and money, ensuring overhead costs are kept to a minimum
- Safe, clean site with fewer hazards
- Concrete withstands exposure to all elements
- Mechanical and electrical products can be embedded
- Twin wall internally ready for direct decoration
- Pre-Cast provides a comfortable building for its occupants with excellent sound insulation
- Concrete is inherently fire resistant, providing a safe and more sustainable building
- Pre-cast concrete elements arrive on site fully cured and ready to take full design loading
- Weather does not play such an integral role on site programmes when using pre-cast concrete as it would with traditional build techniques

'We find Oran Pre-Cast's twin wall to be an excellent, well finished product. It requires minimal preparation work to achieve a satisfactory paint finish because the panels are ready to work with as soon as they are fitted, there is no loss of time with plastering programmes and services are built in, thus avoiding excessive filling and drying-out time.

In our experience, it is considerably easier to achieve a consistent finish with Oran Pre-Cast's twin wall than with conventional plasterwork or tape & joint!

Connolly Painting Contractors & Sons Ltd



Pre-cast shell of Shearwater Carlton

## Testimonials

The advantages of the pre-cast concrete system used in Shearwater were as follows: sizes of windows/doors/curtainwall screens could be agreed well in advance of requirement to site. We did not have to go and physically measure opes and make the units to suit. All could be made to a standard size as per drawings. All metal, glass etc could be ordered and manufactured so that when they were required they could be delivered to site and installed. This avoided any programme issues/delays on site.

The tolerances of the opes within the concrete panels we found were very good. There was no cutting/adjusting on site. The finish to the concrete was very smooth. It was easier for our installers to bed seal flashings to this smooth surface.

**David Reynolds**  
(Hodgins Architectural Facade Ltd)

The Galway office of RPS Consulting Engineers, who are among Ireland's leading Engineering and Environmental Consultancies, was engaged as Civil and Structural Engineering Consultants on the Shearwater Plaza Hotel Project.

The substructures consisted of in-situ reinforced concrete pile caps and ground beams, supported on continuous flight augered piles bored to rock. These were designed upon the receipt of detailed superstructure layouts and foundation reaction loads from Oran Precast. Oran Precast and RPS Consulting Engineers formally reviewed and agreed the substructure/superstructure interface details to ensure full load transfer occurred at this critical junction.

An element of the superstructure designed by RPS Consulting Engineers was the low-pitch 'butterfly' shaped steel framed roof with an insulated composite roof decking. The availability of comprehensive precast fabrication details from Oran Precast, along with its understanding of the importance of the proper detailing of the steel/precast concrete structural interface, ensured ease of design and construction.

It is evident from the two examples highlighted above that Oran Precast display an inherent ability to coordinate with other members of a design team to ensure that client requirements are met fully. The company is also fully cognisant of the importance of the critical interfaces with other trades and disciplines.

**Damien Fallon**  
(RPS Consulting Engineers)

As the Architects of the Carlton Shearwater Hotel, it was important for us to use a fast and cost effective construction type on this project. It was the first time we had seen this 'structural double smooth finish wall system'. We chose precast construction for its obvious advantages: strength, speed, durability, autistic and fire resistant properties. The deciding factor was the 'structural double smooth finish wall system'. When this wall panel comes to site, it is then filled with concrete after it sets and you can actually apply a finishing coat of paint. So every bedroom of the Carlton Shearwater had only to be painted with no need for the typical battening, plasterboard, plastering or skimming. This saved the build, time and money. This was a major factor that allowed us to meet our deadline date, on time.

**Barry Brennan BSc** (Hons) Arch. Dip. Arch.  
(Fergus Carey & Associates)

## Benefits of using Pre-Cast Concrete Products

### Reduced Site Operations

Using pre-cast concrete improves the speed of construction, depending on the complexity of the layout and detailing in the specification. Pre-cast concrete allows parts of the structure to be released, forming an immediate working platform that allows other trades to conduct work. This can take place while the rest of the frame is erected. Pre-cast concrete removes many of the sensitive site operations to the more stable environment of the factory. Poor weather conditions will have little effect on the rate of construction.

### Environmentally Friendly Systems

Concrete buildings provide the ultimate in comfortable spaces for living, working and leisure activities. Greater thermal inertia results from using as much concrete as possible in the building thus greatly reducing heating and cooling costs. All products are manufactured in a controlled environment with no waste or by-products to be disposed of. The entire structure can be fully recycled.

### Complete Turnkey Solutions

The range of products currently available allows designers to integrate pre-cast elements in all areas, not just in frames and flooring, but throughout the entire building, to include stairs, lift shafts and wall panels. This further reduces the requirement to have additional trades on-site. Advances in concrete mould technology allow complex profiles to be produced, overcoming dimensional and structural limitations. These advances would usually be associated with conventional systems employing composites of steel, wood and in-situ concrete.

### Enhanced Design Flexibility

Pre-cast re-enforced and pre-stressed concrete is widely regarded as an economic, structurally-sound and architecturally versatile building medium. Prior to manufacture, concrete products can be designed to fit specific construction applications. Modern pre-cast concrete frame buildings can be designed safely and economically. Disciplined design is inherent in the design of a pre-cast building as the pre-cast manufacturer can take advantage of greater mould reuse and therefore minimise set-up time.

### Increased Fire Safety

Concrete possesses its own built-in fire resistance, which is present the whole way through the building process. Obtaining a one-hour fire resistance is normal and this may be increased to suit the requirements of the project.



## Manufacture and Erection

### A world of Knowledge

All elements of the concrete manufacturing process are controlled and monitored by the most up-to-date technology. Producing concrete products in a factory environment guarantees a supply of accurate, durable concrete products that meet the construction schedule. Employees are expert in the assembly of moulds, steel re-enforcement and fittings and skilled in the batching and pouring of concrete. Team leaders, technicians, engineers and management support an experienced and trained workforce.

Using the latest technology in enterprise resource planning, products are produced in a pre-determined sequence to ensure that matured concrete products are ready for delivery and meet customer requirements. Products are handled by qualified crane operators, minimising any product stress. Qualified transport and safety personnel liaise with the main contractor throughout the project, ensuring efficient and safe methods for delivery and erection.

### Health and Safety

Oran Pre-Cast is strongly committed to the health and safety of its employees and customers and to ensuring effective health and safety practice is maintained in every aspect of work carried out throughout the company. Health and Safety is the top priority within the organisation. The Company recognises that work place accidents and work related health problems cause suffering to the persons affected, with possible financial loss to them and to the company. Oran Pre-Cast is committed to providing the necessary resources, structures and procedures that are required to safeguard all affected persons against the risks arising from its activities in the workplace. Managing a successful business nowadays is largely dependent on a company's ability to manage the health and safety of the company effectively. Oran Pre-Cast aims to continually improve its health and safety performance on an on-going basis by ensuring that a proactive approach to health and safety is adopted by all employees.

### The company achieves this by:

- Ensuring that applicable legal requirements are identified and adopted as Oran Pre-Cast's acceptable performance standard.
- Setting health and safety objectives and constantly reviewing the company's performance against these.
- Planning for safe systems of work and ensuring that continuous monitoring and appraisal is undertaken.
- Ensuring that the company's Safety Management System is periodically reviewed and updated as required.
- Defining responsibilities and authorities for management with particular responsibility for its health and safety performance.
- Ensuring that all levels, training and appropriate information on health and safety is provided so that people are competent and safety conscious.



## Guarantee of Quality and Service

### Keeping On Top of Our Game

Oran Pre-Cast operates a Quality Management System, backed by the company's accreditation to ISO 9000. Since its foundation over 25 years ago, the company has designed, manufactured and erected concrete products for a wide and diverse range of client applications throughout Ireland. Through continuous investment in both employees and manufacturing processes, Oran Pre-Cast can guarantee the highest levels of customer service, irrespective of the size or scale of a project.

Utilising modern manufacturing techniques and facilities allows the company to deliver the highest standards demanded in construction practices. All finished products are inspected to ensure these meet the exact specifications requested by the client. All products are manufactured to BS8110 standards.

### Client Testimonials

**'First class Quality product,'**

Tony Gaughan - Managing Director, TG Gaughan Construction

**'One stop shop for your pre-cast design, manufacture and erection'**

Tom McGahan - Contractors Manager, Glenascaul Developments

**'Working with Oran Pre-Cast ensured we met our programmes not just on time but ahead of schedule'**

Joe Byrne - Regional Director, Sisk

**'Imaginative, dedicated and driven workforce. No job was too big for Oran Pre-Cast'**

Hugh Malone - Contractors Manager, Duggan Bros.

**'Oran Pre-Cast was able to take the hassle out of dealing with multiple subcontractors and enabled our site management to run smoothly'**

Brendan Davey - Regional Director, Mc Namaras





Our promise set in stone



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Deerpark Industrial Estate, Oranmore, Co. Galway  
Tel: 091 794 537 | Fax: 091 794 586  
Email: [info@oranprecast.ie](mailto:info@oranprecast.ie)

[www.oranprecast.ie](http://www.oranprecast.ie)