



CREAGH
INNOVATION IN CONCRETE

Structures

STRUCTURAL PRECAST RANGE OVERVIEW





Creagh produces a diverse portfolio of concrete products which continues to grow through research and new product development - the versatility of precast concrete ensures limitless possibilities and potential.



Precast Structures and bespoke products.

Architectural concrete colours	04
Architectural brick faced panels	05
Architectural concrete	06
Architectural cladding	08
Sandwich panels	10
Rapidres	12
Columns & beams	14
Multi-storey car parks	16
Lift shafts & stair cores	18
Bespoke products	20
Coffered ceilings	24
Stairs & landings	26

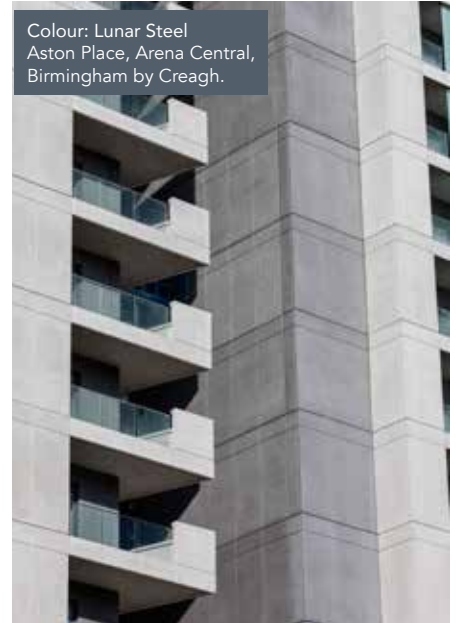


ARCHITECTURAL CONCRETE COLOURS

Creagh Architectural Concrete standard colour range.



Colour: Aspen
Toronto Primary School,
Livingston by Creagh.



Colour: Lunar Steel
Aston Place, Arena Central,
Birmingham by Creagh.

The Creagh Architectural Concrete range uses a variety of coloured, textured and decorative finishes, created for architects, designers, house developers and contractors alike, illustrating how you can achieve powerful and dynamic aesthetics on a façade. The range allows architects to widen their scope and unleash their creative flair designing prestigious buildings that require a superior finish.

Creagh offer 12 standard colours within the Architectural Concrete range. Special colours are available from a customisable pallet, upon request. It is recommended products are verified against a sample (3 production sized units manufactured over 3 days) before ordering. A bespoke colour matching facility is also available.

*Signal and Charcoal are the darkest blacks within this range and have a restriction on panel size of no greater than 6m²



The colours on this chart may be subject to small variations due to the limitations of the printing process.

ARCHITECTURAL BRICK FACED PANELS



UNIVERSITY OF ROEHAMPTON, LIBRARY.

Client:
University of Roehampton,
Library.

Location:
Roehampton,
London

Creagh manufacture a range of **architectural brick faced panels** to suit various applications.

These panels can be manufactured as a single skin or sandwich wall construction. They can be utilised as part of a structural precast frame or as a cladding panel onto a precast steel or in situ concrete frame. Brick facing is highly effective on structural elements such as beams and columns in addition to flat cladding panels. Although it has a traditional appearance, it offers durability and other benefits of the precast concrete panelling system.

Brick faced panels offer greater speed of construction compared to traditional methods and the factory manufacturing process offers increased quality control.

No scaffolding is required and on-site waste is minimised. Panels can be manufactured from half bricks or brick slips. Special brick colours are available from a customisable palette upon request.

ARCHITECTURAL CONCRETE

Architectural precast concrete cladding can be manufactured in a range of finishes and colours to suit any application.

THE MOOR

Client:
Bowmer & Kirkland

Location:
Sheffield

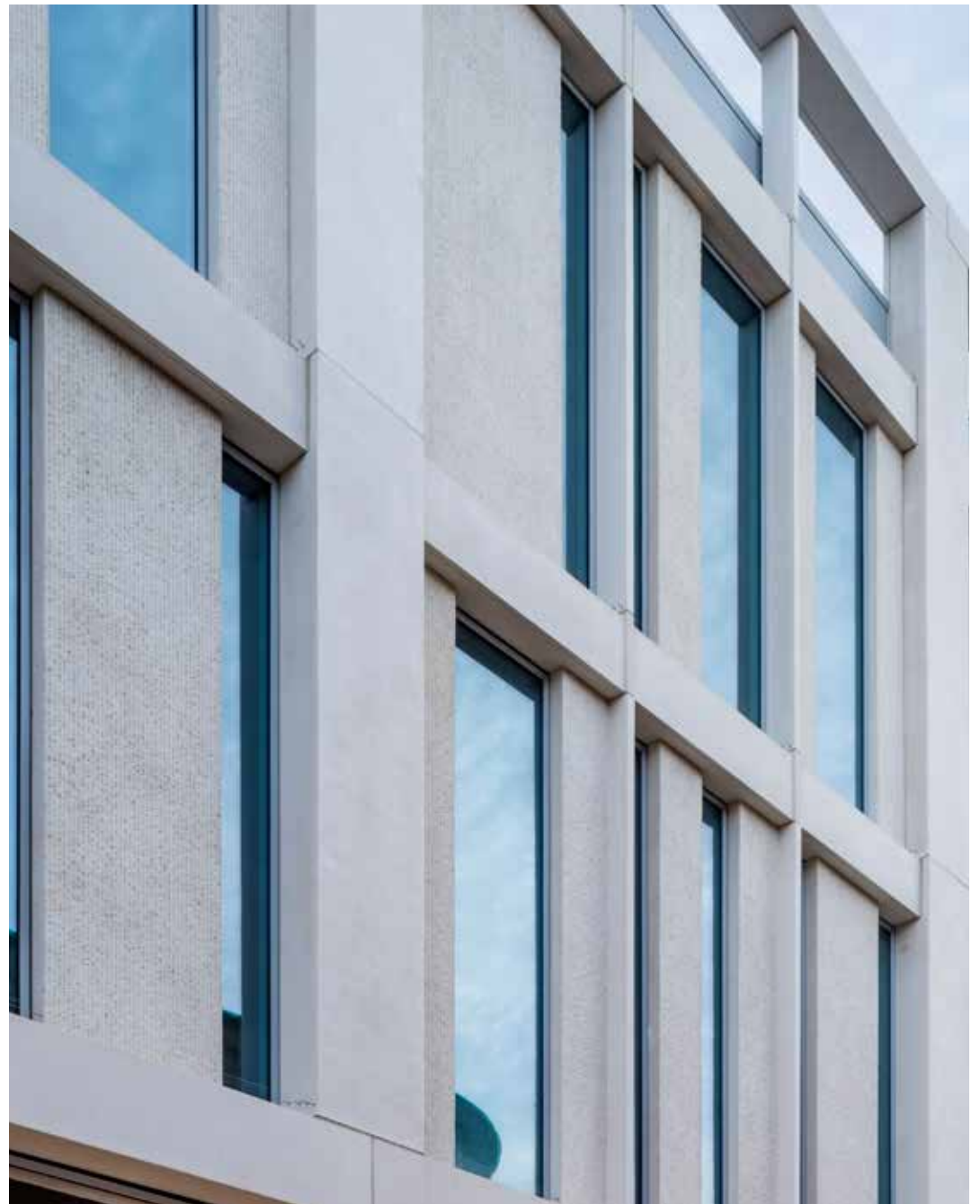




ARCHITECTURAL CONCRETE

Quality of finish and speed of erection makes architectural precast cladding an excellent choice for external facades. Its weight is supported by the frame of the building and suitable for use on both new buildings and renovations.

Precast cladding offers flexibility as well as extensive design possibilities. It is reliable, durable and requires low maintenance.



ARCHITECTURAL CLADDING

The Creagh panel system can be supplied with a wide range of traditional and innovative exterior finishes which is applied during the factory manufacturing process.





This process creates the opportunity to pre-fit windows and fittings off-site thus removing the need for scaffolding and wet trades on site.

Our design team can facilitate the delivery of the most complex exterior schemes using a combination of finishes.

FINISHES AVAILABLE

A wide range of coloured mixes including :

- Smooth
- Etched
- Profiled/Patterned
- Exposed Aggregate
- Brick Slip
- Half Brick
- Printed Concrete

SANDWICH PANELS

Creagh designs, manufactures and installs precast concrete sandwich panels for all types of buildings. This includes apartments, student accommodation and hotels.



Sandwich panels combine an internal structural leaf with a layer of insulation complemented by the Thermomass system and an external leaf thus replacing the traditional cavity wall system.

BENEFITS

Energy efficient.

Fully integrated structure/skin system - load-bearing wall panels provide both structural support and external finish.

Factory production enables optimal finish.

On-site labour costs minimised.

No need for external scaffolding, thus saving contractor costs and prelims.

Strong and durable.

Load bearing panels are installed as the building is being constructed.

Reduction of wet trades on site.

Acoustic benefits.

Fire resistant.

Reduction of waste.

Offers designers more scope, as anti-gravity features can be pre-moulded avoiding need for cumbersome secondary support on-site.

Greater quality control.

Can be manufactured in large sizes.

Achieves building weather tightness much more quickly.

Very low maintenance and lifecycle costs.

Offers reduced overall cladding zone, resulting in greater net lettable area.

MICROGAMING HEADQUARTERS

Client:
Auldyn Construction

Location:
Douglas,
Isle of Man



FINISHES AVAILABLE

A wide range of coloured mixes and include:

- Smooth
- Etched
- Profiled/Patterned
- Exposed Aggregate

TECHNICAL

Walls are manufactured in various widths to meet U-value requirements. Typical thicknesses are detailed below.

- 150 - 200mm Internal leaf
- 160 - 200mm Insulation
- 80 - 100mm Outer leaf

NON-COMBUSTIBLE INSULATION FOR PEACE OF MIND

Creagh manufacture precast wall panels using insulation that complies with the most demanding European fire classification rating of A1 – the highest rating available, meaning ‘no contribution to fire growth’ in accordance with BS EN 13501:2018.

When you specify a Creagh precast wall panel you can take peace of mind in knowing that by choosing a non-combustible solution you’ve taken an uncompromised approach to safety.

FOAMGLAS® INSULATION



Creagh precast wall panels include FOAMGLAS® insulation which improves the fire safety of the entire building. FOAMGLAS® insulation is manufactured from specially graded recycled glass ($\geq 60\%$)* and natural raw materials. The insulation is non-combustible, has a high compressive strength without deformation, is completely vapour and water tight and offers proven long-lasting thermal performance.

Material complying with Euroclass A1, non-combustible, no toxic fumes from -265°C to +430°C.

TROK® INSULATION



Creagh precast wall panels include TROK® Stone Wool a non-combustible insulation made from molten mineral stone, a renewable and plentiful naturally occurring resource, providing compressive strength and increased vapour resistance to ensure a low U Value panel and, most importantly, a European Fire Classification of A1.

Material complying with Euroclass A1, in accordance with BS EN 13501.

rapidres[®]

Fastrack Build System

Rapidres is a fastrack offsite crosswall build system developed for residential projects, including apartments, student accommodation, hotels, social housing and custodial. Rapidres crosswall technology delivers robust traditional style construction with the speed of a modular build for significant program savings. Creagh design, manufacture and install the complete structure from foundations to roof level.



ARENA CENTRAL, ASTON PLACE DEVELOPMENT

Client:
Dandara Ltd

Location:
Birmingham City Centre

Product:
Rapidres precast panels,
columns, transfer beams,
hollowcore flooring, internal
cross walls, lift shafts, stair
flights & landings.

FORBES PLACE STONEWOOD APARTMENTS

Client:
Dandara Ltd

Location:
Aberdeen

Product:
Rapidres precast panels, columns, transfer beams, hollowcore flooring, internal cross walls, lift shafts, stair flights & landings.



The total frame solution comprises of structural walls and solid or hollowcore flooring, which provides greater construction speed than alternative systems. Units are manufactured

offsite ensuring the desired quality is met and can be left for direct decoration if required. M&E can be incorporated into the production process for all types of services.

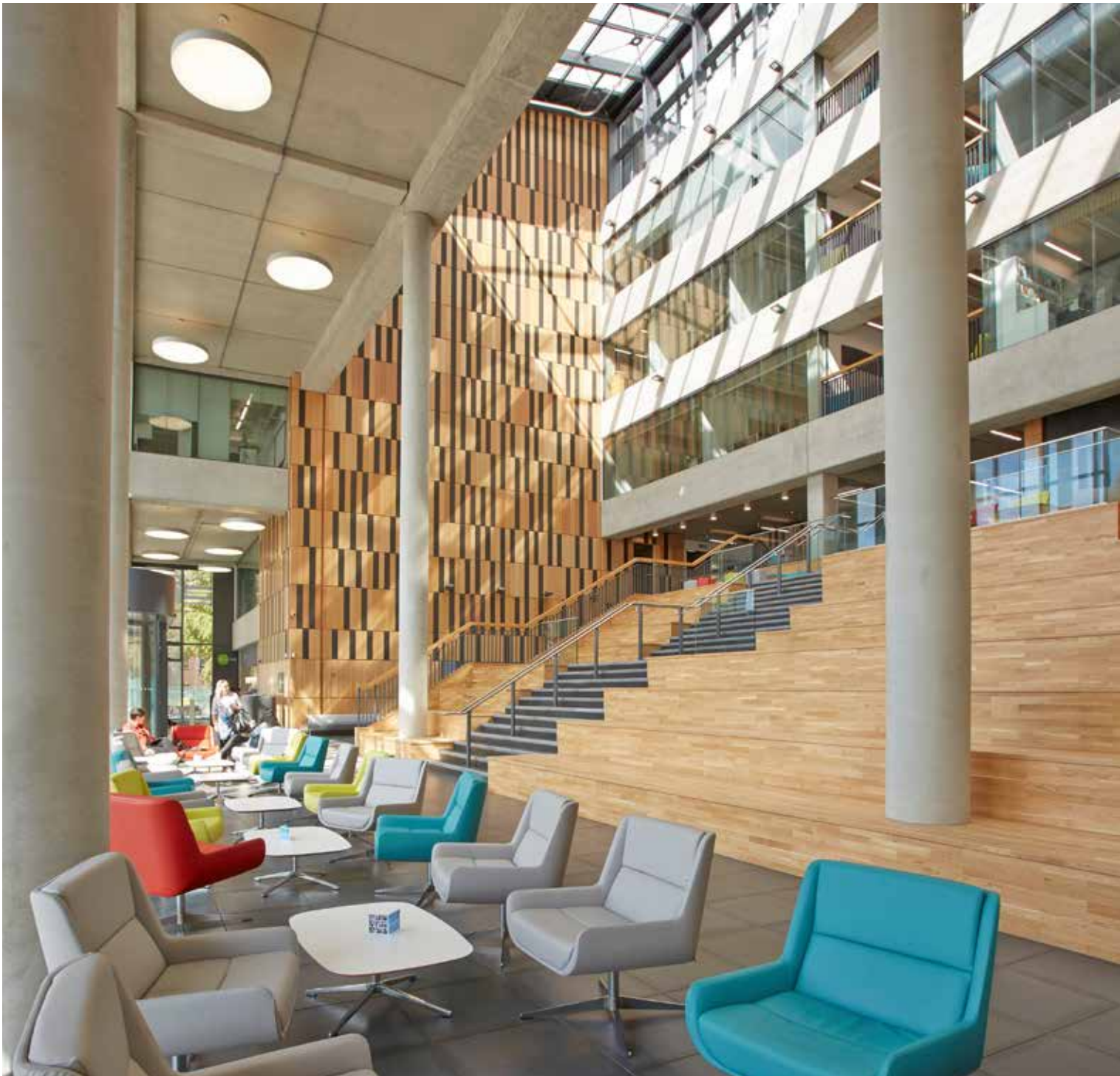
While structures up to 23 storeys have been completed in the UK using this form of construction, it is just as well suited to domestic housing projects.

RAPIDRES BENEFITS

- Decreased preliminary costs due to reduced programme times
- Creates a fast weather tight build with early access for follow on trades
- Reduced site co-ordination as many follow-on wet trades are eliminated
- Robust bespoke modular structure
- Excellent fire protection conforming to new legislation: BS EN 13501-1:2018
- Versatile range of finishes including brick, smooth, patterned and even printed concrete
- Maintenance free alternative to render systems
- Excellent acoustic performance; acoustic separation is minimised due to floor and wall density
- Windows and patio doors can be preinstalled at our factory
- Bathroom pods can be hoisted into position prior to the next floor being installed
- High spec precast prefinished balcony units can be designed and installed
- Internal walls are prefinished, ready for direct decoration
- Cast in M&E conduits and backboxes
- Excellent U Values
- Inherent thermal mass
- Increases passive ratings and lowers the overall carbon footprint of the building
- Improved health and safety
- Reduced heating and maintenance costs
- Certified to: ISO9001, ISO14001, ISO18001 & BES6001
- CE Marked

COLUMNS & BEAMS

Creagh manufactures Precast Columns and Beams as part of a total precast frame solution or as part of hybrid in situ concrete schemes. Offsite production reduces site programme times. Various profiles of beams and columns can be manufactured to suit project requirements.





MANCHESTER METROPOLITAN UNIVERSITY, BIRLEY FIELDS CAMPUS.

Creagh secured a precast package from main contractor Sir Robert McAlpine for the provision of a new campus building.

Quality of finish was critical as all internal concrete was visible; no additional paint or other finishes were permitted.

Client:
Manchester Metropolitan University.

Location:
Manchester

COLUMNS

Columns are available in a range of shapes, sizes and finishes, can be circular or square and are designed to incorporate any additional features or fittings. Single storey columns are generally 2.5m - 4m high. Beams bear directly on top of these units with a dowelled connection between them. Multi storey columns are cast with corbels or alternative connections at locations to suit the beams at intermediate levels. Projecting rebar can be provided for tying into in situ floors. Options for foundation connections include cast in base plates, dowel tubes or projecting bars.

BEAMS

Creagh Concrete can provide a cost effective solution offering a composite beam and floor solution which will reduce overall depth and weight with connections developed to suit your requirements.

Edge/Spandrel Beams

Span around perimeter to provide a bearing edge on one side for flooring slabs and structure above.

Spine Beams

Provide a bearing edge on two sides for flooring slabs.

Lintel Beams

Span over door or window openings to provide bearing for the structure above.

Balcony Beams

These are beams cast with an integral balcony.

Raker Beams

Can be designed and supplied to provide the required bearing for terracing units.

Where single storey columns are being used, continuous beams are cast to reduce the bending moment of the beam and, therefore, its depth. Continuous beams can also extend beyond the support column and provide bearing for smaller drop-in beams between them.

MULTI STOREY CAR PARKS

Creagh is a leading provider of multi storey car parks and provides a complete service from initial design to manufacture and installation.

WEMBLEY STADIUM MSCP

Location:
Wembley Stadium, London.

Parking Spaces:
840



Our offering typically consists of:

- Cores including Stairs and Landings
- Frame (Steel or PCC to suit scheme specification)
- PCC Floor Plates and Toppings (if necessary)
- Ramps
- Impact Barriers





M&S LONGBRIDGE

Location:
Longbridge,
Birmingham, UK.

Parking Spaces:
1500

LIFT SHAFTS & STAIR CORES

Creagh manufacture Precast Lift Shafts and Stair Cores offsite in bespoke moulds which are installed quickly and efficiently by our specialist installation teams.





**CIRCLE SQUARE
16 STOREY
CAR PARK.**

Client:
Russells Construction

Location:
Manchester

OPTIONS

- Individual Panels for assembly on site
- Pre-assembled box units
- Free standing
- Stability Cores



LIFT & STAIR CORES

Working closely with your lift supplier, we can ensure that all components are accurately positioned including channels, call button and control panel recesses.

Additionally we can design and manufacture capping slabs with all temporary and permanent anchors cast in, ensuring a safe installation of all M&E components. Because

shafts are manufactured as a series of boxes, the need for temporary works or propping is minimised or eliminated.

Lift shafts and stair cores can be designed as shear walls to provide lateral stability or as a simple and efficient replacement for blockwork or in situ concrete.

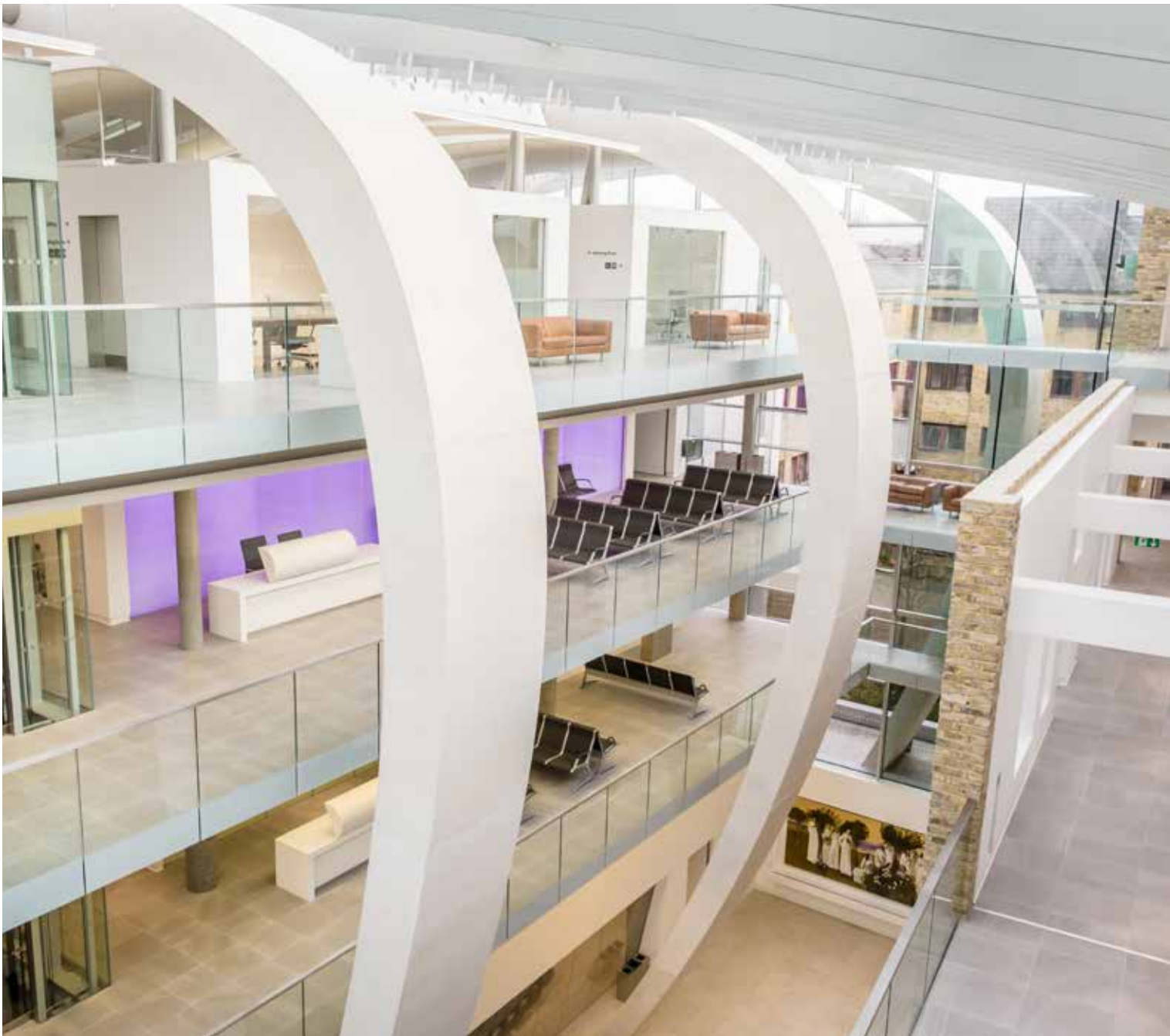
BESPOKE PRODUCTS

Creagh offers a complete bespoke precast concrete solution. If your requirements are challenging, then we will find a solution.

**FETAL MEDICINE
RESEARCH INSTITUTE.**

Client:
Gilbert Ash

Location:
South London





Lord's Cricket Ground



GRAPHIC CONCRETE

Graphic concrete allows you to use concrete in new and stylish ways - you can select one of our designs or, alternatively, develop your own design.

The technology is a proven concept within the precast concrete industry and a vast range of designs are possible for public, commercial or industrial sectors.

A patterned concrete surface is produced from the contrast between the smooth face and the exposed fine aggregate finish in the concrete.

DOCK LEVELLERS

Creagh designs, manufactures and installs precast concrete Dock Leveller systems, typically for warehouse and distribution centres. This system can often reduce core construction time by up to 50% against more traditional forms of construction.

TERRACING

Creagh designs, manufactures and installs precast concrete terrace units for stadia and cinema/auditorium projects. Creagh also offers precast concrete stairs, raker beams, vomitory walls and slabs.

LORD'S CRICKET GROUND

Client:
BAM

Location:
London

RAIL PRODUCTS

Creagh offers a full range of precast products for the rail industry. Platform units, riser walls, cross beams and retaining walls solutions are all possible using adaptable moulds.

A fully finished platform unit can be manufactured, complete with cast in tactile paving units and exposed aggregate coloured concrete finish to replicate traditional asphalt surface.

This solution offers the greatest speed of construction and is ideal where time restricted access is critical. The units are typically 5m long and span between precast cross beams. Other rail related products are available on request.



BESPOKE FLOORING

Creagh offers a complete bespoke precast concrete solution for commercial flooring requirements.

**LIBRARY
BUILDING,
UNIVERSITY OF
ROEHAMPTON.**

Client:
Geoffrey Osborne Ltd.

Location:
London



DESIGN FLEXIBILITY

- Irregular and complex shapes manufactured to suit contract requirements.
- Service holes and cut outs accurately formed during manufacture.
- Smooth flat soffit can take direct decoration and top surface can be power-floated reducing depth of overall floor zone.
- Exposed soffit can be used to provide 'thermal-mass'.
- Single or two-way spanning design possible.
- Thermally active floor units can be manufactured with integrated heating/cooling pipework utilising the thermal mass of the concrete units.

BENEFITS

- Large areas can be erected quickly and safely
- Designed to withstand heavy loading conditions
- Excellent sound insulation and fire resistant
- Designed to withstand exposure to weather
- Can accommodate irregular or complex building designs
- Integral lattice girder assists progressive collapse design
- Soffit can be left exposed saving on additional costs for suspended ceilings
- Dispenses with site shuttering



PLATE FLOOR

The units are manufactured on steel tables ensuring a very high standard of finish. The product is, therefore, suitable for applications where the soffit of the concrete slab is left exposed in the final case.

The units are typically 60-75mm deep and designed to act compositely with an in situ concrete topping.

Units can be manufactured at any width to suit bay sizes up to a maximum of 3m. Typically 2.2 - 2.4m suits transportation.

HOLLOWCORE FLOOR

The company manufactures a large range of hollowcore concrete floor depths - 85mm, 90mm, 100mm, 110mm, 150mm, 200mm, 250mm, 300mm, 320mm, 350mm, 400mm, 420mm, 450mm & 500mm (other bespoke depths can be manufactured subject to project size).

Creagh Concrete provides cast in lifting pins, factory formed weep holes, notches, open cores, reduced end/shelf angle details and cantilever details. Slabs can be designed ranging from 30 minutes to 2 hour fire rated as standard. We also can supply various depths of hollowcore flooring with insulation bonded to underside of planks.



COFFERED CEILING UNITS

Creagh manufactures high quality precast concrete coffer ceiling units.

**COMMISSIONERS
OF IRISH LIGHTS
HEADQUARTERS.**

Client:
Bowen Construction

Location:
Dún Laoghaire



COFFER/VAULTED SLAB

These exposed precast ceilings provide an attractive architectural look to the interior of the building and are typically used for offices, airports, libraries and other high specification buildings.

The slab absorbs internal heat gains helping to prevent over heating and ensuring a more stable internal temperature.

DESIGN FLEXIBILITY

- Site operations simplified and 'wet trades' reduced
- Reduction in site formwork and propping
- Standardisation of design details
- Manufactured under factory controlled conditions from high quality moulds
- The concrete's thermal mass can be utilised to improve the energy efficiency of the building
- Excellent sound reduction
- Fire resistant
- Low maintenance and high quality finish
- Long term durability

STAIRS & LANDINGS

Creagh stair flights and landings are produced to a high standard of finish and dimensional accuracy. Production falls into two main types - timber and steel moulds. Stairs are made as straight flights or with attached landings and can also be produced as winder risers or individual treads.





- BENEFITS**
- Flexible configurations
 - Innovative design
 - Quality finish
 - Immediate access improves site safety and efficiency
 - Stairs and landings can incorporate any detail that the design demands
 - Stairs and landings can be detailed for progressive collapse



MANCHESTER METROPOLITAN UNIVERSITY, BIRLEY FIELDS CAMPUS.

Creagh secured a £6.1m precast package from main contractor Sir Robert McAlpine for the provision of a new campus building.

Client:
Manchester Metropolitan University.

Location:
Manchester

Cast-in inserts for nosings or recesses for nosings as well as cast in sockets for temporary handrails (by others) can also be provided. Creagh also manufacture Bespoke Concrete Stairs or Exposed Aggregate/Architectural Finished Recon Concrete Stairs. Concrete staircase components are produced with a variety of profiles and features to meet the specific needs of each individual project.

FINISHES AVAILABLE

There are three types of standard finish available.

Type A - the finish surface should be free from voids, honeycombing and other blemishes, small blemishes caused by entrapped air or water may be visible.

Type B - this finish can only be obtained by the use of high quality concrete and formwork. The concrete is thoroughly compacted and all surfaces are true with clean arises. Only very minor surface blemishes occur with no staining or discolouration.

Type C - this finish is first obtained by producing a type B finish and then improving this finish by carefully removing all fins and other projections, thoroughly washing down and then filling the most noticeable surface blemishes with a cement and fine aggregate paste to match the colour of the original concrete. After curing, the face is rubbed down, where necessary, to produce a smooth and even surface.



CREAGH INNOVATION IN CONCRETE

CREAGH CONCRETE PRODUCTS LTD

HEAD OFFICE

38 Blackpark Road, Toomebridge,
Co. Antrim, N. Ireland
BT41 3SL

Tel: 028 7965 0500
ROI: 048 7965 0500

ENGLAND

Thurgarton Lane, Hoveringham,
Nottinghamshire
NG14 7JX

Tel: 016 3683 1043

SCOTLAND

Cliftonhall Road, 14 Newbridge Industrial Estate
Newbridge, Edinburgh
EH28 8PJ

Tel: 0131 333 5405



structures@creaghconcrete.com
Creaghconcrete.co.uk