



Heavy Civils and Bespoke Precast Specialists

Why Croom?

- ▶ Croom has long been acknowledged as one of Ireland's market leaders for the design & manufacture of precast concrete box culverts. This is because Croom provides a high quality service combined with sound technical expertise and contract administration. We are committed to partnering with our clients from the concept stage and using our valuable experience gained in operating long-term framework-type contracts with national contractors and water companies, etc.
- ▶ This expertise and manufacturing capability has been acquired over the last 30 years since the use of box culverts became recognized as a practical solution for drainage issues.
- ▶ We are regularly involved in design/build & PFI contracts, as well as the more conventional supply-only approach. Our flexibility and our continuous commitment to offer added value to all of our customers has allowed us to develop a standard range of culvert sizes which range from 1000mm - 9000mm spans, offering the widest choice on today's market so that we can deliver to suit any specific hydraulic requirements.
- ▶ Our standard units can also be supplied with special features, such as access openings, solid end walls, dry weather flow channels and tapered units for radial deployment, making sure our customers are provided with exactly what they need.



Pricing Guidance

Croom accepts email, faxed or postal inquiries and we aim to price within a day or two of receipt. Depending on current workloads, this timescale can often be significantly reduced if requested. Please be aware that due to the bespoke nature of culvert pricing, each inquiry will take at least a few hours to prepare once started, and possibly several days for more complex schemes. In the first instance, quotations will be returned by email if an address is supplied, followed by a hard copy in the post when requested.

To assist us in ensuring that our quotations are as accurate as possible, we request that your inquiry is accompanied by as much information relating to the culverts as possible.

We can provide budget quotations with a minimal amount of information, such as size, length of run and location, but firm prices will require the following additional details:

- ▶ Location of project
- ▶ Culvert size (internal dimensions)
- ▶ The length of culvert run
- ▶ Minimum/Maximum fill depths above the culvert – Invert and Ground Levels preferably
- ▶ Loading conditions (Field loading, HA, HB, Eurocode etc)
- ▶ If the culvert is to be used as a storage tank, and if any special inverts are required
- ▶ Design class (XD1, XD2, XD3 etc)
- ▶ Number, size and position of opes



Product Range

- ▶ Croom has a modular mould range with a significant number of different possible combinations. Some sizes are more common than others so more moulds are available in those sizes. Unit sizes range from 1000mm to 9000mm in width and 800mm to 6000mm in height. Units as standard have a flat invert - however, special inverts and channels are available upon request.
- ▶ Please note that special inverts are built up using smaller moulds, therefore the shallowest Dry Weather Flow channel available would be 750mm, and the shallowest Shallow V invert would be 675mm. The internal height of a special unit is always measured from the base of the invert.
- ▶ Units can be supplied with tapering to allow for bends in culvert runs, this is typically no more than 10° per unit, greater is possible in some situations and is assessed on a case by case basis. Manhole openings and pipe access holes can be produced on request, and runs can be capped with an integral end wall to form a tank. Channel units are also available.
- ▶ All box culverts are manufactured to order and to the specific required design criteria. The external loading conditions will govern the wall, roof and floor thickness, unit length and reinforcement content.
- ▶ With some exceptions the stated widths and heights can be combined to create the internal size of your choice. All measurements are internal sizes. External measurements will depend upon design conditions.

Please contact us to discuss your specific requirements.



Case Study:

Parallel Box Culverts Provide Solution

Two 4.2 metre box culverts running parallel to each other make the 8.4 meter bridge crossing possible at Red Strand, Clonakilty, County Cork.

Cumnor Construction was commissioned by Cork County Council to install the culverts. Croom Concrete Culverts were used to make what would be a difficult and time-consuming job into a safer and quicker solution for replacing the bridge.

All culverts arrived on site and were fitted on the same day.



Case Study:

Croom Install Box Culverts for Mayo County Council

Croom Concrete has installed 12m of precast box culverts to create a river crossing in Mayo.

Croom was commissioned by Mayo County Council to install and manufacture the four 3m-wide by 1.5m-high box culverts. The end culverts featured precast head walls which meant less work before the road could reopen.

All of the culverts used in this job were made to the Eurocode design standards, which are Britain's and Ireland's standards for structural design. Croom Concrete culverts were used to make what would be a difficult and time consuming job into a safer and quicker solution for replacing the bridge.

Although Mayo County Council had allowed two days for the job to be completed, the culverts were installed within three hours of arriving on site. Kieran Erwin from Mayo County Council said "The culverts installed were of exceptional standard and they fitted together perfectly in very little time".



Case Study:

Croom Supply Box Culverts to OPW Flood Relief System Clontarf

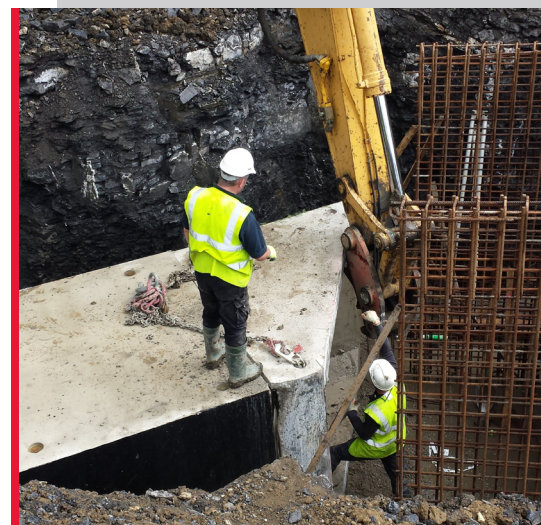
Croom Concrete supplied over 150 linear metres of box culverts to the flood relief system in Clontarf Co. Dublin.

The system which was installed by the Office of Public Works included culverts ranging from 1.5m sq. to 2.1m sq. The installation took place in the grounds of Clontarf Golf Club.

This project took place under the Arterial Drainage Act 1945 and the Arterial Drainage Amendment Act 1995. The purpose of this system is to "minimise the flood risk exposure of households and businesses from coastal flooding.

The golf course's 12-hole green was raised by over two metres and set back into the mound in order to avoid flooding. The works were undertaken on a zero cost basis to Clontarf Golf Club.

On completion, the Office of Public Works was very happy with the culverts and the service supplied by Croom.



Frequently Asked Questions

Q: Is there a minimum/maximum order value?

A: Our factory facility has the capacity to support even the largest schemes. Likewise, we are happy to supply smaller projects where only minimal numbers of units are required. Please note that there are fixed costs in the design and manufacture of culverts that make larger schemes more economical than smaller ones.

Q: Do you supply your own designs?

A: Croom will supply full design calculations and drawings once appointed as a supplier. This would usually be a full order to design and manufacture the culverts - however if our workload allows, we can occasionally take on design-only orders at a cost of €500.00 per set of calculations (please contact the team for costs for Eurocode specified projects). If the project ultimately leads to a full supply order this charge of €500.00 will not be payable.

Q: How quickly can you deliver the culverts to site?

A: Several factors determine how quickly units can be delivered to site. Typically designs can be issued within two weeks of an order being placed and once the approval of these designs has been received the manufacturing process will commence. From that point, the number of units required and availability of our moulds will dictate delivery times. Current order levels will affect both design and manufacturing processes so deliveries do vary. Please contact the team to discuss your delivery requirements, and remember that delivery dates are valid on the day of offer and may need to be renegotiated. In all cases, Croom supplies bespoke precast culverts that are specific to your requirements therefore we do not carry stock in any size.

Q: Will Croom supply an Approval in Principle (AIP) document?

A: Our expertise in the design and manufacture of box culvert units enables us to offer information within Section 5 of the AIP which enables the purchaser to complete the document. We are not able to offer interpretive recommendations from the ground survey's soils reports in respect of either ground bearing pressure, settlement or ground water effects, etc. Please note that the box culvert units have a unique design for each project and that this design, and the associated detail drawings, will only become available after an order has been placed. A design certificate for the box culvert units can be issued in accordance with the signed Approval in Principle.

Frequently Asked Questions

Continued

Q: What information do you need to be able to give me a quotation?

A: We are able to offer a budget price against the minimal information of culvert sizes, length of run and location of project. For an accurate formal quotation, we request design information which should include the minimum/maximum fill depths, loading conditions, design class, profile shape, use of units (storage tank, crossing, etc.) together with details of any specific requirement, such as changes of direction, openings or coatings. Drawings and specifications are the best way to ensure a compliant bid. We also ask that in all cases you provide full contact details to ensure we can contact you if we have further queries and so that we can ensure that the quotation arrives safely.

Q: Do you offer an installation service?

A: Unfortunately we do not install precast culvert units, we are simply the manufacturer. This is usually carried out by a ground worker/contractor and we will deliver the units to site in accordance with their programme. We can supply you with a copy of the Box Culvert Association's Guide to Site Practice which offers information relating to the installing of the culvert units.

Q: Can I see my culverts being manufactured?

A: If you wish to view the manufacture of the precast culverts we would be more than happy to arrange a guided tour of our factory. We are centrally based with excellent transport links, located just a few minutes from Limerick City in Croom.

Q: Are your culverts designed to Eurocode standards?

A: By default, our precast culverts are designed to Eurocode standards as currently required by the majority of projects.



Our Contact Information

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If you should require any further information about Precast Culverts or any of our other products, please contact one of our expert team members who will be happy to help you.

The Box Culvert Specialists



www.croomconcrete.ie
www.croomconcrete.co.uk