

Derry to Coleraine Rail Upgrade Case Study





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JFC Manufacturing specialise in plastics manufacturing and produce branded products for a variety of market sectors including Agriculture, Equine, Construction, Marine and Material Handling. With offices and manufacturing facilities in 6 countries, JFC products are sold in over 40 international markets. We control the major aspects of our business including raw material sourcing, recycling, R&D and engineering which gives us the ability to respond quickly to changing customer needs and market developments. We also apply our plastic design and manufacturing expertise to offer business-to-business solutions and contract manufacturing services.

Derry to Coleraine Rail Upgrade – BAM/F.P McCann

In July of 2012 BAM Rail McCann JV were awarded an estimated £17m contract from Translink to upgrade the railway line between Derry and Coleraine in Northern Ireland. This involved the construction of a full track relay from Coleraine to Casterock and Eglinton to Derry. This extensive engineering project also included the installation of new land drainage and ducting pipe solutions.

JFC was awarded the contract through one of our trade partners Davies Ltd (Drainage Specialists) located in Raheny Co. Dublin for the manufacture and supply of the necessary stormwater management solutions required for the project. This included 210,000m of CorriDuct, 7000m of Twinwall CorriPipe™ and 180 Cathchpits which had to be individually fabricated to specific site requirements. A major prerequisite of the project was the selected supplier would need to have the capability to supply the large quantities within a tight time frame of just eight weeks to meet the specification of the project.

Project Outline:

- Develop the Derry to Coleraine line as a tourist attraction
- Relay track and upgrade signalling and drainage

Time Frame:

- 8 week

JFC Project Contribution:

- 210,000m of 100/118mm Duct
- 7,000m of CorriPipe™ Twinwall drainage pipe
- 180 Fabricated Catchpits



One of the
World's Great
Railway Journeys

Londonderry to Coleraine by train with
bus connections to The Causeway Coast



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The Solution: Solid TwinWall CorriPipe™

JFC offer an unrivalled commitment to the agricultural and construction sector with our range of twinwall CorriPipe™. This twinwall drainage pipe is made from HDPE plastic and is manufactured by twin extrusion process in which the two layers are simultaneously extruded one inside the other and heat welded together in one continuous step. The outer wall is corrugated providing excellent structural strength which reduces the possibility of on-site damage. The inner wall has a smooth seamless finish to assist hydraulic flow. The design unlike traditional single-wall pipe prevents silt accumulation.

Applications:

Ideal for gravity surface water and stormwater drainage applications JFC CorriPipe™ is used for Highway filter and carrier drains, Rail Track Drainage, Golf Course, Land Drainage, Cathpits and Land Reclamation projects. It has been used in many major road construction projects throughout Ireland and the UK.

Benefits:

- Lightweight and available in long lengths (6m) making it quick and easy to install.
- Ease of installation and the elimination of wastage reduces labour and plant costs.
- Fewer joints and longer lengths (6m) assist flow.
- Resistant to most naturally occurring chemicals and is therefore suitable for use on the majority of soil conditions.
- Can be installed in depths from 0.5 to 10m*
- Full Range of fittings and accessories available

Quality Assurance:

JFC CorriPipe™ complies with or exceeds the relevant British standards to ensure reliability and long lasting service. It is backed with comprehensive technical support and a network of stockists to ensure availability when and where required.

The following Agreement Certificates have been awarded to JFC CorriPipe™ Twinwall Pipe.

- BBA, HAPAS Roads & Bridges Certificate No 02/H069



CorriPipe™ Fittings & Accessories:

JFC CorriPipe™ is complemented by a broad range of fittings and accessory products that are a quick and efficient to use and suitable for several applications. (Includes bends, tees, reducers, and wyes/junctions). A wider range of pre-fabricated fittings for 375, 450, & 600mm Ø pipe are also available on request.



*Maximum depth depends on ground conditions. Please contact JFC for advice if burial depth is greater than 6m



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Corriduct: Cable Ducting Systems

CorriDuct is a twinwall high density ducting pipe manufactured by twin extrusion process in which the two layers are simultaneously extruded one inside the other and heat welded together in one continuous step.

It is suitable for the protection of electricity, gas and water supply services, street lighting cables and fibre optic cabling for television and telecommunications. It is supplied in black as standard.

General Purpose CorriDuct Sticks are manufactured to two different specifications depending on the application.

1. BS EN 50086-2-4:1994 (Conduit Systems for Electrical Installations)
2. ENATS 12-24 – Class 2 (Technical Specifications for plastic ducts for buried electric cables)

Benefits:

- High Density Polyethylene twinwall ducting.
- Wide range of colours available for specific applications.
- Lightweight and available in long lengths (6m) for quick and easy installation.
- Ease of installation and the elimination of wastage reduce labour and plant costs.
- Fewer joints for quick and easy installation.
- Resistant to most naturally occurring chemicals and is therefore suitable for use in the majority of soil conditions.
- Manufactured in accordance with BS EN 50086-2-4:1994
- Range of fittings and accessories available.

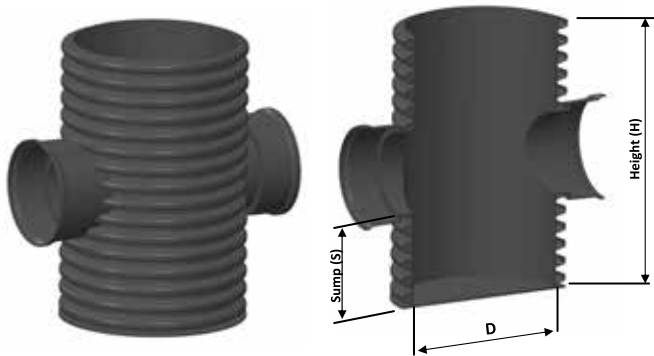




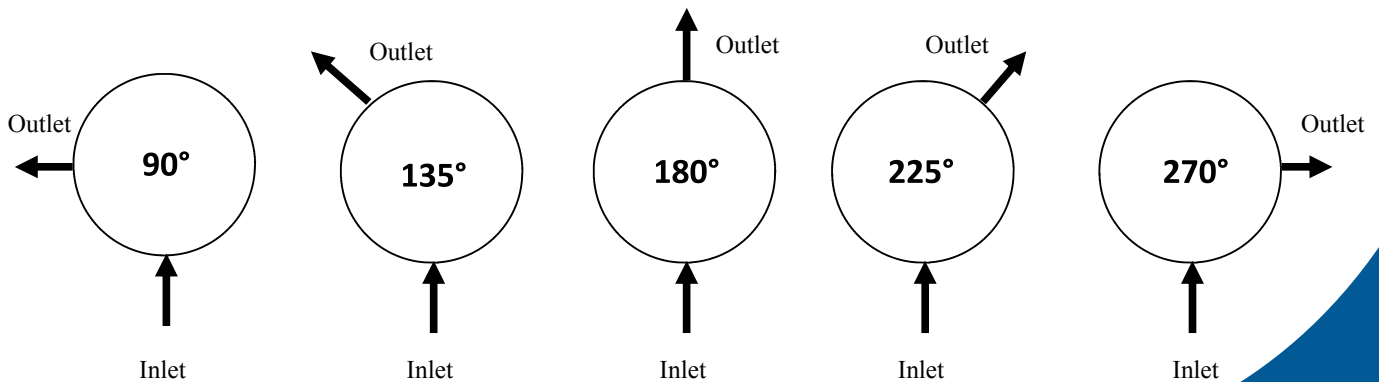
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Catchpits:

JFC design a range of catchpits to separate silt and other particles. This improves the quality of water before it is reintroduced into the environment. As each individual SuDS system is different, they are individually fabricated to take into account water flow rates and ground conditions that differ from site to site. JFC catchpits have been widely and successfully used for applications including railway drainage and highway drainage systems. JFC fabricated in total 180 individually designed catchpits specific to the requirements of this rail project.



Pipe Sizes (mm)	Typical Catchpit Diameters (mm)		
	90° & 270°	135° & 225°	180°
150	300	300	300
225	450	450	300
300	600	600	450
375	750	750	600
450	900	900	750



"JFC's ability to create a custom solution to our exact specifications was highly impressive. The team were reliable, and the project was a complete success due to their professionalism, expertise and quality service delivered within the tight time constraints of the project" - Davies Ltd. (Drainage Specialists) Raheny, Co. Dublin





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