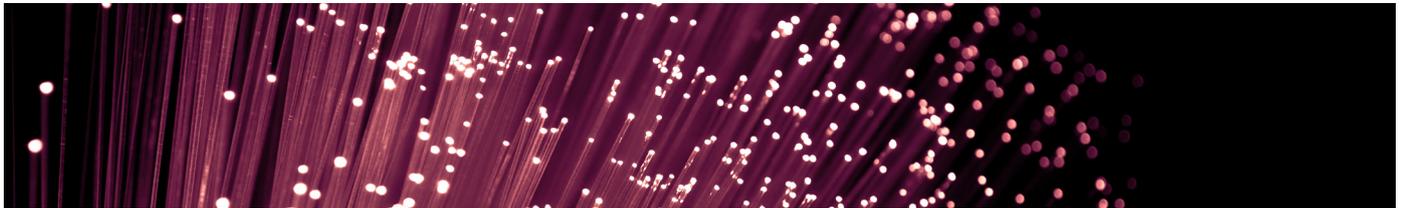


Capability



Fibre Installation



Telecoms

Fingleton White has 10 years experience designing & building high speed fibre optic networks

Fingleton White was set up in 1981 to service the energy sector in Ireland. Since then it has been involved in many significant projects in the development of oil, natural gas infrastructure and fibre networks. It is the leading company of Engineers and Project Managers and holds a number of patented designs. Since its inception Fingleton White have completed projects with a capital value exceeding half a billion Euros.

Fingleton White have successfully completed a 16,000MW gas station, 450 km of gas pipelines, 30 km of fibre network, 15 hydroelectric stations, 70MW CHP facilities, waste to energy projects, numerous industrial refrigeration systems and boiler house upgrades. Our R&D and feasibility studies in the use of innovative technologies in the energy sector includes aviation fuel pipeline, district heating, domestic CHP, the use of compressed natural gas as a virtual pipeline and as a future fuel for vehicles.



Longford Regional Broadband Project



Fingleton White were appointed consultants by Longford County Council as the Design Project Management and Construction Supervision Consultants for 11km high speed network of fibre optic cables in and around Longford Town. The project scope included Design Consultancy, detailed routing, SED design, Co-Location design, wayleave preparation, planning and statutory approvals. Fingleton White also prepared the construction tender documents and supervised the subsequent construction of the network (96 fibre single-mode cable drawn in a 32mm subduct within a 4 x 100mm duct metro ring system). The Broadband infrastructure was designed to cater for the many institutional bodies within the town such as the County Council, the Hospital, Schools, Enterprise Ireland, I.D.A business parks and private technology parks and industrial areas. The network was designed to cater for multiple service providers thus ensuring that everyone in the region has access to competitive high quality and world class services in the communications, electronic and mobile commerce sectors.

Concept to Completion

Fingleton White provides the complete range of Engineering Services from conceptual design through to final commissioning

Fingleton White provide the full suite of design, construction and commissioning services to our clients in the telecom infrastructure sector. These range from routing and conceptual studies through to wayleave preparation, construction procurement and project management. In recent years, Fingleton White has played a major role in the roll out of broadband infrastructure in the midlands and west of Ireland.

- *Fibre and Route Design*
- *Detailed Routing*
- *Project costing*
- *Wayleave Preparation*
- *Planning and Statutory Approvals*
- *Liaison with Property Owners*
- *Co-Location Design*
- *Tender Documents Preparation*
- *Evaluation of Construction Tenderers*
- *Construction Management*



Fibre and Route Design

As well as our experience of route design in the broadband fibre sector, Fingleton White are highly experienced in route design in the gas, oil electricity and water industries. This means that we are uniquely placed to optimise routes and avail of co-location opportunities.

Planning and Environmental

Fingleton White's services include the provision of a full environmental impact assessment as part of the planning and regulatory applications. Our team of engineers is highly experienced in liaising with An Bord Pleanála and the local authorities and our comprehensive set of inhouse standards ensures that our final designs meet with and exceed current environmental best practises.



Cost Management

Fingleton White's accurate budget estimating techniques allow us to produce reliable final cost projections. This, combined with our experienced construction management and Quantity Surveying team ensures that budget overruns are avoided.

Co-Location Design

Fingleton White have prepared route designs for the gas, oil, electricity, water and telecom industries, we bring cross-industry knowledge and have specific experience of the co-location of fibre networks with gas and water pipelines.



Liaison with Property Owners

Our engineers are experienced in liaison with property owners and in supporting the wayleave negotiation team. We have worked with CIE, Waterways Ireland, GNI and a range of urban and rural private property owners.

Construction Tender Documents Preparation

The principal deliverable of the detailed design process is a comprehensive concise set of tender documents that construction contractors can readily use as a basis for their tender price. Our engineers and quantity surveyors take particular care to ensure that they are as comprehensive and complete as possible at the time of tender.



Evaluation of Construction Tenderers

Our comprehensive work breakdown structure and formatted bill of quantities issued with the tender make the Construction Tender evaluation process very straightforward. They allow the contractors to set a transparent price and to compete on a level playing field. We provide a detailed evaluation of all tenders and make recommendations to the client based on cost, quality and schedule.



Construction Management

Fingleton White provides an "end to end" Construction Management service that includes oversight of all site activities and the conducting of site meetings. Our Quantity Surveyors provide certification of monthly contract valuations we keep the client apprised of progress by updating the contract schedule and the monitoring of quality.



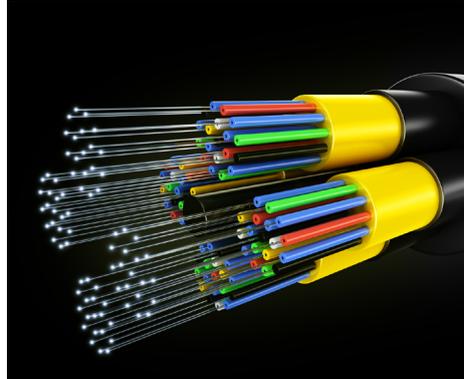
Telecommunication Installations Designed, Built & Commissioned by Fingleton White.

Name/ Client	Location	Description	Commisioned
Longford County Council	Longford, Co. Longford	Design & Construction Supervision of a 12km optic fibre broadband network	2007
Westmeath County Council	Laois, Offaly, Roscommon & Westmeath	Design of a 40km optic fibre broadband network	2004
Gas Networks Ireland	Pipeline to the West	Design & Construction Supervision of a 300km Fibre Optic Duct Network	2001 - 2003
Kerry Group PLC	Charleville, Co. Cork	Campus Fibre Optic Network for process control involving blown fibre in multi tube ducts	2000
Dairygold Co-Operative Society	Mitchelstown, Co. Cork	Campus Fibre Optic Network for process control involving 12 fibre multi mode cable	2001
Meath County Council	Phase 1 - Co Meath	Tender for Design & Construction Supervision of Regional Broadband Network	
Meath County Council	Phase 2 - Co Meath	Tender for Design & Construction Supervision of Regional Broadband Network	
Monaghan County Council	North East Broadband Project Phase II	Tender for Design & Construction Supervision of Regional Broadband Network	



EU Funded scheme was set up to provide high speed internet access to Roscommon homes and businesses.

The rollout of the Roscommon Regional Broadband Project was part of the Government's €65 million programme to bring high speed Internet access to key towns around the country. This project, grant aided by the Department of Communications, Marine and Natural Resources under its allocation from the National Development Plan 2000 - 2006, was cofunded by the EU under the European Regional Development Fund for the broadband programme.



Fingleton White were appointed consultants by Roscommon County Council in May 2007 as the Design, Project Management and Construction Supervision Consultants for 11km network in and around Boyle/Castlerea. The project scope included, detailed routing, SED design, CoLocation design, wayleave preparation, planning and statutory approvals, for construction supervision of the 11km broadband optic fibre network. (96 fibre singlemode cable drawn in a 32mm subduct within a 4 x 100mm duct metro ring system).



The completed Broadband infrastructure consists of a high speed network of fibre optic cables servicing all the main industrial estates, commercial buildings, offices, schools and retail areas right across the town. It has been designed to cater for the many institutional bodies within the town such as the County Council, the Hospitals, a number of schools, Enterprise Ireland and the I.D.A business parks, in addition to private technology parks and industrial areas. The network was designed to cater for as many service providers as possible which gives everyone in the region access to competitive high quality and world class services in the communications, electronic and mobile commerce sectors.



Roscommon Regional Broadband



Scope

Detailed Design and Construction Supervision of an 11km Fibre optic Broadband in a metro ring system.

Client

Roscommon County Council

Commissioned

2007

Services Provided

- Design of MAN Network
- Fibre and Route Design
- Detailed Routing
- Project Costings
- Planning and Statutory Approvals
- Liason with CIE & all utility Companies
- Special Engineering Difficulties Design
- Co - Location Design



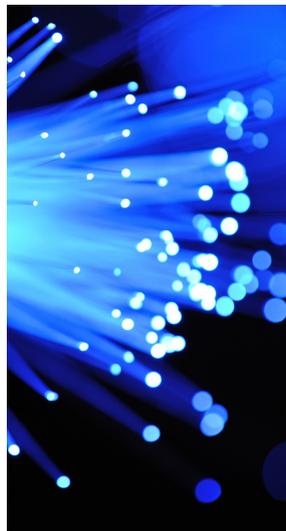
EU Funded scheme to provided high speed Broadband access to 19 Major Towns in the Midlands

The rollout of the Midland Regional Broadband Infrastructure was part of the Governments €65 million programme to bring high speed Internet access to 19 key towns.



This project, grant aided by the Department of Communications, Marine and Natural Resources under its allocation from the National Development Plan 2000/2006, was cofunded by the EU under the European Regional Development fund for the broadband programme.

The Midland Region consists of Portlaoise, Tullamore, Roscommon, Mullingar and Athlone. Fingleton White were the design consultants for the towns of Portlaoise, Tullamore and Roscommon. We acted as Design Consultants including, detailed routing, SED design, CoLocation design, wayleave preparation, planning and statutory approvals, preparation of construction tender documents for 40km broadband optic fibre networks (96 fibre singlemode cable drawn in a 32mm subduct within a 4 x 100mm duct metro ring system)



The overall Broadband infrastructure consists of a high speed network of fibre optic cables servicing all the main industrial estates, commercial buildings, offices, and shopping areas right across the three towns. It has been designed to cater for the many institutional bodies within the own such as the Midland Health Board, the Hospitals, a number of schools, Enterprise Ireland and the I.D.A., in addition to private technology parks and industrial areas.

The network was designed to cater for as many service providers as possible which gives everyone in the region access to competitive high quality and world class services in the communications, electronic and mobile commerce sectors.

Midlands Regional Broadband



Scope

Detailed Design Consultants for 40km fibre optic network covering Portlaoise, Tullamore & Roscommon

Client

Westmeath County Council

Commissioned

2004

Services Provided

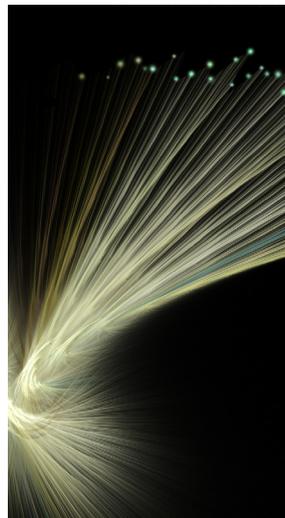
- Full Project Consultancy
- Fibre and Route Design
- Detailed Routing
- Planning and Statutory Approvals
- Liaison with CIE, Waterways Ireland, BGE
- Special Engineering Difficulties Design
- Co Location Design
- Construction Tender Documents
- Preparation Evaluation of Construction Tenderers
- Evaluation of Potential Trench Share with BGE
- Wayleave Preparation

High Speed Internet delivered to all Longford Homes and Businesses under Regional Broadband Scheme

The rollout of the Longford Regional Broadband Project is part of the Government's €65 million programme to bring high speed Internet access to key towns around the country. This project, grant aided by the Department of Communications, Marine and Natural Resources under its allocation from the National Development Plan 2000/2006, was co-funded by the EU under the European Regional Development Fund for the broadband programme.



Fingleton White were appointed consultants by Longford County Council in December 2005 as the Design Project Management and Construction Supervision Consultants for 11km network in and around Longford Town.



The project scope included Design Consultancy, detailed routing, SED design, Co-Location design, wayleave preparation, planning and statutory approvals. We also prepared the construction tender documents and supervised the subsequent construction of the 11km fibre optic network (96 fibre single-mode cable drawn in a 32mm subduct within a 4 x 100mm duct metro ring system).



The Broadband infrastructure consists of a high speed network of fibre optic cables designed to cater for the many institutional bodies within the town such as the County council, the Hospital, a number of schools, Enterprise Ireland and the I.D.A business parks, in addition to private technology parks and industrial areas. The network was designed to cater for as many service providers as possible which gives everyone in the region access to competitive high quality and world class services in the communications, electronic and mobile commerce sectors

Longford Regional Broadband



Scope

Design Project Management and Construction Supervision Consultants for 11km metro ring network in and around Longford Town.

Client

Longford County Council

Commissioned

2007

Services Provided

- Design of MAN Network
- Fibre and Route Design
- Detailed Routing
- Project Costings
- Planning and Statutory Approvals
- Liaison with CIE & all utility Companies
- Co - Location Design
- Construction Tender Documents Preparation
- Evaluation of Construction Tenderers
- Management of Construction Contractor procurement
- Contractor Recommendation
- Identify and process third party Wayleaves
- Project Management & Construction Supervision
- Validation of As Built documentation, drawings, spreadsheets, certifications & fibre test results.
- Validation & Certification of MAN on behalf of Longford County Council

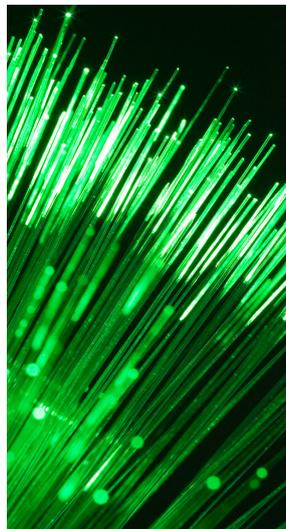


Kildare, Maynooth & Newbridge to benefit from High Speed Fibre Optic Broadband network

The rollout of the Kildare Regional Broadband Project is part of the Government's €65 million programme to bring high speed Internet access to key towns around the country. This project, grant aided by the Department of Communications, Marine and Natural Resources under its allocation from the National Development Plan 2000/2006, was cofunded by the EU under the European Regional Development Fund for the broadband programme.



Fingleton White were appointed consultants by Kildare County Council in April 2007 as the Design, Project Management and Construction Supervision Consultants for 25km network in and around Maynooth/Newbridge/Kildare. The project is to provide Design and Consultancy services for the new broadband network including, detailed routing, SED design, CoLocation design, wayleave preparation, planning and statutory approvals, for construction supervision of a 25km broadband fibre optic networks (96 fibre singlemode cable drawn in a 32mm subduct within a 4 x 100mm duct metro ring system).



The Broadband infrastructure consists of a high speed network of fibre optic cables servicing all the main industrial estates, commercial buildings, offices, schools and retail areas between and around the



three towns. It has been designed to cater for the many institutional bodies within the town such as the County Council offices, the Hospitals, a number of schools, Enterprise Ireland and the I.D.A business parks, in addition to private technology parks and

industrial areas and colleges. The network was designed to cater for as many service providers as possible which gives everyone in the region access to competitive high quality and world class services in the communications, electronic and mobile commerce sectors.

Kildare Regional Broadband



Kildare
County Council

Scope

Project Management and Construction Supervision Consultants for 25km metro ring and linked network in and around Maynooth/Newbridge/Kildare

Client

Kildare County Council

Commissioned

2007

Services Provided

- Design of MAN Network
- Fibre and Route Design
- Detailed Routing
- Project Costings
- Planning and Statutory Approvals
- Liason with CIE & all utility Companies
- Special Engineering Difficulties Design
- Co - Location Design

