

PipeWorks

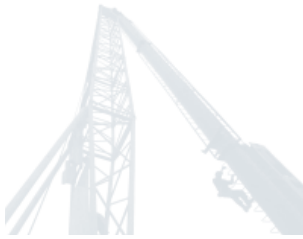
Delivering technology-driven answers
to underground pipeline challenges



MAKING PIPES WORK

PRIDE OF PLACE

www.fletcherconstruction.co.nz



Fletcher Building Ltd is New Zealand's second largest public company and a leading Australasian building industry player.

The Fletcher Construction Company is New Zealand's largest and leading contractor, delivering major projects of challenging proportions, in demanding locations, for 100 years. It undertakes a wide and varied range of projects from commercial building and fitouts to civil, marine and industrial engineering.

The Engineering Division has unrivalled expertise in civil, marine and industrial engineering. Fletcher is the local contractor of choice for overseas specialists seeking to enter into joint ventures.

Pipeworks is a specialist contractor with the capability and resources to upgrade industrial and utility pipelines using state-of-the-art technology. It specialises in trenchless pipeline rehabilitation.

Trenchless pipeline rehabilitation – making pipes work

CURED-IN-PLACE-PIPE (CIPP): PipeWorks specialises in CIPP rehabilitation of existing pipelines, a process involving no excavation or environmental impact and minimal site disturbance.

The system is faster and more attractive than traditional methods of pipe replacement. Liners installed by PipeWorks range from 100mm to one metre in diameter, up to 300m in length and include egg-shaped liners to old brick sewers.

The CIPP process involves installing a flexible resin-impregnated felt liner in an existing pipe and then curing it with hot water. In most cases this process can be carried out in the space of a day, although larger liners may require longer curing times. Once cured the liner is a stand-alone structural pipe, designed to take the loads imposed by soil, water table and surface applied weights, such as vehicles and buildings.

MANHOLE REHABILITATION: Stopping water infiltration/inflow, while preventing corrosion. Degraded manholes are cleaned with a water blasting process, repairs done to the parent concrete surface as required and then a new polymer corrosion resistant coating applied, while the parent material surface is still "wet".

The application minimises downtime and restores the structural integrity of the parent material. The application is sprayable or trowelable.

PIPE BURSTING: This is particularly suited to earthenware pipelines with large joint displacement.

A bursting head attached to a new pipe is winched or thrust through an existing pipeline gradually while a hammer produces a pulse which cracks the existing pipe allowing the new pipe to replace it.

CCTV: PipeWorks specialises in inspection and recording of the status of sewer and stormwater pipelines using the latest Close Circuit Television cameras, usually prior to and after the installation of CIPP and other trenchless pipeline rehabilitation methods.

Trenchless pipeline construction

HDD: PipeWorks expanded its presence in the Horizontal Directional Drilling market with the purchase of a Vermeer Large Navigator Drill, the largest locally owned machine of this type to operate in New Zealand. The drill is capable of installing pipes between 150mm and one metre over distances of up to one kilometre, depending on the diameter.

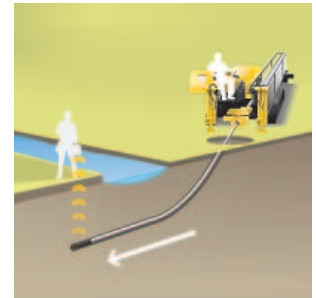
Together with the drilling rig PipeWorks owns the latest mobile mud processing plant and a mobile desander unit that can process 750 litres per minute. The drilling team has been equipped with the latest computer-aided planning software and sensitive steering equipment and has been very successful to date, performing some very complex drilling projects. PipeWorks has access to the most experienced HDD knowledge in the NZ. Our working relationship with Professor Sam Ariaratnam of Arizona State University allows PipeWorks to offer advice on complex drilling methodologies.

PIPE JACKING / MICROTUNNELLING: Large diameter pipelines construction projects have been performed in conjunction with Brian Perry Civil, a sister business unit within the Engineering division of the Fletcher Construction Company. PipeWorks focuses on the 500mm to 2500mm diameter range with the capability to deliver very complex projects. New shaft installation and other trenchless construction methods can be combined.

Environmental rehabilitation

DREDGING / DESLUDGING OF OXIDATION PONDS: PipeWorks owns two dredgers and has delivered some very complex projects dredging/desludging of wastewater oxidation ponds, such as Manukau Oxidation Ponds in Mangere for WaterCare and most recently the dredging/desludging of the oxidation ponds at Orewa, for Rodney District Council.

RESERVE REHABILITATION: PipeWorks is often involved with the environmental and associated pipeline rehabilitation of reserves as part of pipeline rehabilitation and/or trenchless pipeline construction projects and more recently at the Goodall/XXX Reserve for MetroWater, a standalone environmental rehabilitation project.



The Fletcher Construction Company trading as Pipeworks.

Pipeworks contact details

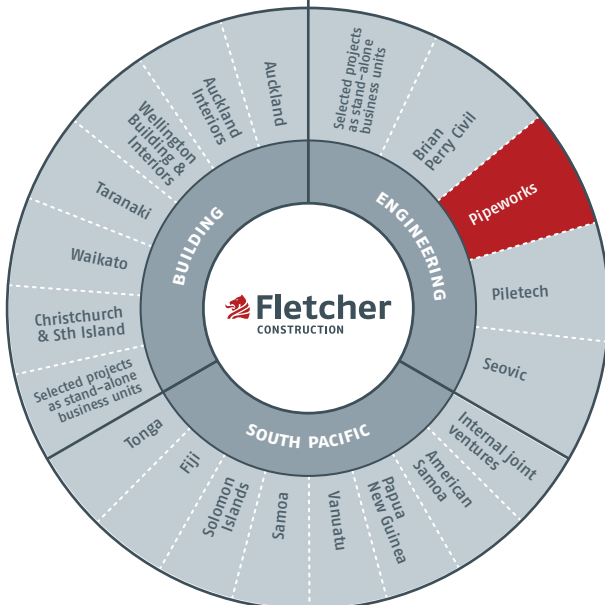
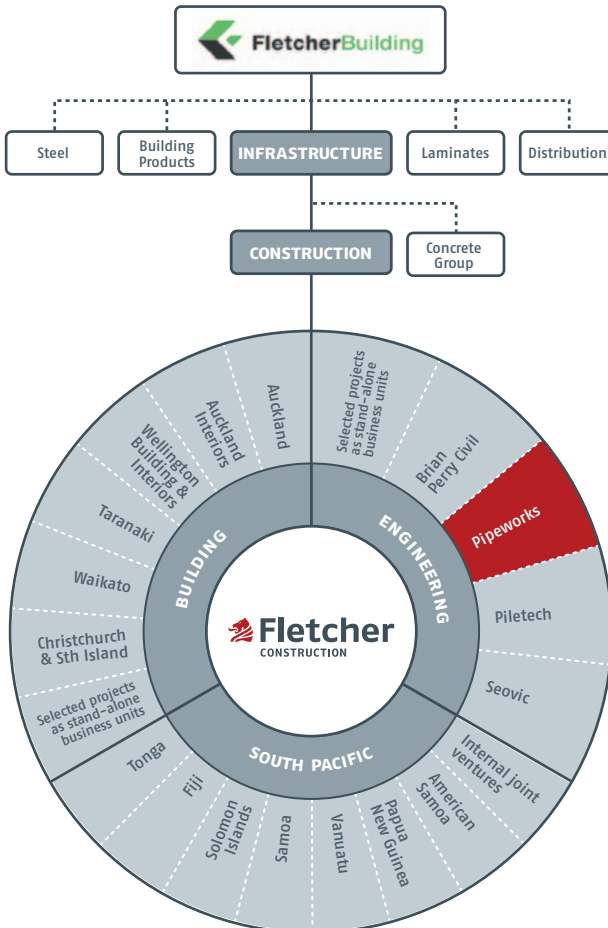


Ian Jonkers
General Manager
DDI: 09 573 7832
MOB: 027 2442 722
 ianj@fcc.co.nz



Gerry van Niekerk
New Business Development
DDI: 09 571 8452
MOB: 027 2787 256
 gerryv@fcc.co.nz

FLETCHER COMPANIES AND BUSINESS UNITS



One strong company A family of business units