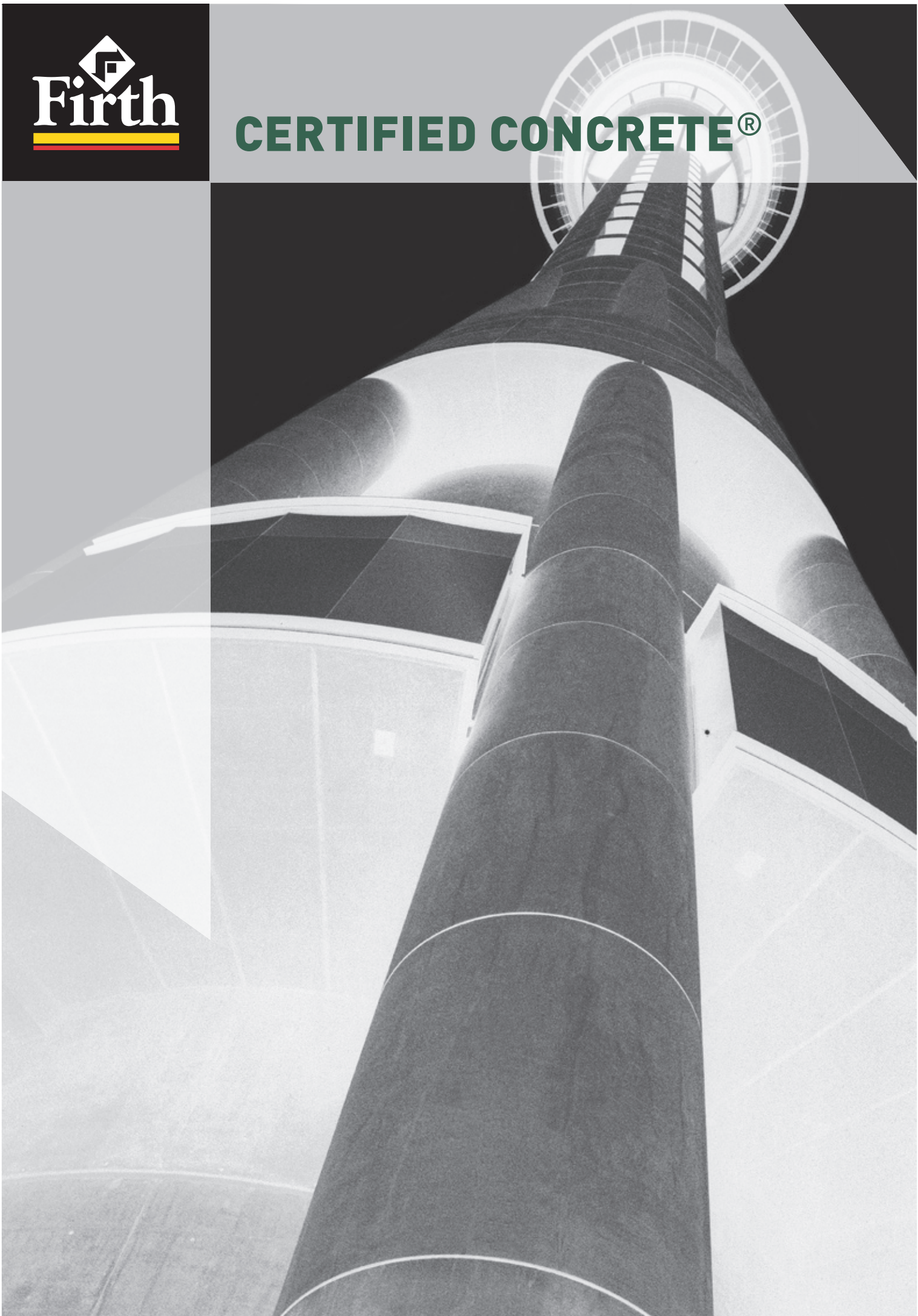




CERTIFIED CONCRETE®



FIRTH CERTIFIED CONCRETE NETWORK

Northern Region Certified

Dargaville
 Kaitaia
 Puketona Junction
 Russell
 Ruakaka
 Whangarei
 Silverdale (Dec 2007)
 Albany
 East Tamaki
 Hamer Street - Auckland City
 Henderson
 Manukau
 Pukekohe
 Takanini - W Stevenson & Sons
 Leonard Rd - Allied Concrete
 Auckland Airport
 Waiheke Island

Central Region Certified

Te Awamutu
 Te Rapa
 Thames
 Whitianga
 Katikati
 Mt Maunganui
 Te Puke
 Waihi
 Whangamata
 Kawerau
 Whakatane
 Rotorua
 Taupo
 Tokoroa
 Napier/Awatoto
 Hastings
 Hawera
 New Plymouth
 Stratford
 Palmerston North
 Otaki
 Paraparaumu
 Aotea Quay - Wellington City
 Belmont

Joint Ventures

Coromandel Joint Venture
 Taumaruni - Greenfields Plant Byfords
 Turangi - Greenfields Plant Byfords
 Waiouru - Greenfields Plant Byfords
 Taihape - Greenfields Plant Byfords
 Wanganui - PERTH Concrete



Southern Region Certified

Blenheim
 Nelson
 Amberley
 Hornby
 Greymouth
 Canterbury Concrete
 Ashburton
 Fairlie
 Geraldine
 Timaru
 Hanmer Springs
 Dunedin
 Oamaru
 Palmerston
 Twizel
 Hilderthorpe
 Invercargill
 Queenstown
 Wanaka
 Jacks Point

Joint Ventures

Cromwell Certified

● Certified Plants

● Joint Ventures

INTRODUCTION

Firth Industries is New Zealand's largest national producer of superior ready-mix concrete. Established in the mid 1920's by the Firth family and operating as Ironclad Products Ltd, the business name was changed to Firth Concrete Co. in 1934. Firth is an established industry leader with a strong focus on innovation, design, consistent quality, performance and service.

Today, Firth Industries operates as a division of Fletcher Concrete and Infrastructure Limited, within the Fletcher Building group.

The name 'Certified Concrete' is synonymous with concrete quality. As the industry leader, Firth Certified Concrete® consistently demonstrates product leadership through the regular introduction of new products and innovative solutions to meet changing customer needs and evolving market

conditions. The company is also constantly making operational improvements to boost the value delivered to customers.

Firth has over 65 plants throughout New Zealand, together with a large fleet of trucks and concrete pumps. A national team of engineers, support staff and IT specialists provide back-up plus an extensive knowledge and experience bank, enhance our ability to provide cost-effective solutions to all concrete requirements.

This widespread infrastructure means that we can supply concrete to most locations across the country. In recent times, Firth Certified Concrete has worked with a variety of leading New Zealand organisations to develop the nation's resources. This includes such national icons as the Auckland Sky Tower and Te Papa and the Westpac Trust Stadium in Wellington.



**INNOVATION
QUALITY AND
SUPERIOR
SERVICE**

CONCRETE - THE NATURAL CHOICE

Concrete is one of the most durable materials known. Basically a mix of natural materials – cement, sand, stones and water, concrete has been used in construction since Roman times. However today, the formulation of different grades of concrete has evolved into a complex technological science. Modern concrete is a high technology building medium. It can be modified or altered for highly specific applications through the use of different aggregates, admixtures and additives as well as plastic and steel fibres.

SUSTAINABILITY

The building industry plays a crucial role in minimising the impact of materials and construction on the environment. As NZ's largest concrete company and a leader in concrete design and innovation, Firth is committed to sustainability in manufacture and distribution. This includes the recycling of surplus raw ingredients, water and leftover concrete during manufacture through to the occupancy and ongoing maintenance over the whole life of the building.

However implementing sustainable practices throughout the manufacturing process is only the beginning of the contribution Firth Certified Concrete makes to long-term sustainable building. More far-reaching benefits, including significant energy savings, are achieved through the thermal mass properties of concrete together with careful design. This is explained in more detail in a booklet entitled 'Firth Sustainable Concrete and Concrete Masonry'.



SAFETY

Consistent safety is key to our success. This is achieved by constantly seeking ways to improve working conditions and eliminate risk at all workplaces, as well as every stage of the concrete manufacture, delivery and installation process. To support this, Firth has developed strong operating practices, training, induction programmes and in-house safety audits.

QUALITY ASSURANCES

Firth practices have been developed and refined consistently over the past 80 years. We now carry the nationwide ISO 9001 Certification. This assures both quality of products and that our internal procedures for order taking, delivery and invoicing meet the same high standards.

In addition, Firth owned internal testing practices exceed all industry standards. Plants are audited internally and evaluated by industry experts to assure compliance with New Zealand Standard NZS3104 Specification for Concrete Production. Firth Certified plants are also audited under the New Zealand Ready Mix Concrete Association Plant Audit Scheme.

TECHNICAL ASSISTANCE

Firth's in-house engineers and external engineering resources mean we are able to offer complete compliance with any specifications required by a project. Testing staff and dedicated laboratories ensure product quality and provide comprehensive concrete testing and appraisals.

INDUSTRY PARTNERSHIPS

As part of Fletcher Building and a member of both the Cement and Concrete Association of New Zealand and the New Zealand Ready Mix Association, Firth is able to offer customers a vast network and base of knowledge. This includes access to libraries, research reports and skilled practitioners. Relationships with suppliers like Golden Bay Cement, Winstone Aggregates and Grace Admixtures also ensure that Firth has a continuous supply of quality raw materials.

QUALITY AND SUPPLY

Skilled staff and advanced transport management software ensure efficient, accurate product supply. Management and project teams continually review processes and performance standards, seeking ways to better anticipate customer needs and improve delivery performance.

PLANNING AND MANAGEMENT ASSISTANCE

Over the years, Firth has developed exceptional skills in supplying concrete to major projects. These skills and the cumulative experience enable the successful planning of projects, ensuring that all aspects connected with the continuous supply of concrete are managed effectively.

An example of this is the faultless pouring of over 1,500m³ in the construction of Hamilton's Pukete Wastewater Treatment Plant – New Zealand's largest ever continuous concrete pour.

CONTINUAL IMPROVEMENT

Firth is constantly looking for innovative ways to challenge current practices and enhance customer service, at every level of the organisation. We have formal processes for addressing and registering customer complaints. Feedback through this system is invaluable to our policy of continuous self-improvement.

TRAINING

Firth has training and development programmes for all staff. These cover practical competencies as well as theoretical knowledge. Particular emphasis is placed on health, safety, environmental responsibility, quality of products and best practice procedures.



PUMPING SERVICES

Firth has access to a range of boom and static concrete pumps, available throughout New Zealand. Utilising skilled operators, these pieces of equipment facilitate some spectacular construction feats. In the case of the Auckland Sky Tower, this meant pumping concrete to a height in excess of 200 metres.

CUSTOMER NETWORKS

Customer networks are a key part of the Firth offering. A variety of activities are organised every year bringing builders, concrete contractors, placers, pre-casters, kerb and channel operators and block layers together with Firth staff. As a direct result of this interaction, we learn more about our customers needs and wants. At the same time, this networking builds ongoing partnerships where people can share information and add further value to their own businesses.

PROJECT SHOWCASE

Firth has established itself as the preferred supplier for many major projects throughout New Zealand. Our production experience covers RibRaft® floors, supply of conventional in-situ concrete through to specialised, high-performance concrete including

the latest Shotcrete mix designs, Steelcrete Concrete and Self Compacting Concrete. The following is a selection of projects in which Firth Certified Concrete played an instrumental part.

THE AUCKLAND SKY TOWER



Several challenges existed in supplying over 45,000m³ of high performance concrete. Developing a mix design with a design life of 150 years that could be pumped to a height exceeding 200 metres, managing Auckland city traffic and continuous pours of over 1,000m³ were all successfully accomplished by Firth.

SYLVIA PARK



In the construction of NZ's largest shopping complex, Firth was engaged in supplying Multiplex with 85% of the total volume of concrete required for this project. A total of just over 50,000m³ of various grades of concrete was delivered over a 3 year period.

WAITANGI PARK



Firth went to extraordinary lengths sourcing specialised raw materials and customising delivery solutions in order to help complete Wellington's waterfront park. Special mixes were developed to achieve a compressive strength of 50MPa in combination with specified natural aggregates in the 600m³ supplied for footpaths.

In addition, aggregates and seashells were sourced around the north island, batched dry and shipped to the Aotea Quay plant to be batched into quantities as low as 2m³, for use in various architectural features.

This park received top accolades at the 2007 New Zealand Institute of Architects Resene Awards for Architecture.

WHITEHILLS WIND FARM



As subcontractor to Works Infrastructure, Firth had a major role in supplying 13,000m³ of concrete for the massive foundations for each of the 29 Wind Turbines. A remote location, extreme weather conditions and the need for continuous pours exacerbated the complexity of this project. In response, Firth established a temporary concrete batch plant on the farm, supported by a back-up facility. This project was successfully completed in March 2007.

JACKS POINT SUB-DIVISION



Firth has been onsite since March 2006 supplying paving, retaining walls and concrete for RibRaft® floors to the exclusive homes that will make up this premium sub division just 10 minutes from Queenstown. To date approximately 2,000m³ of concrete has been poured. At least 1,100 more sections are planned, so there's plenty of work to keep Firth occupied as the only concrete supplier on site.

TAUPO A1GP INTERNATIONAL RACETRACK



Being able to transform an old racetrack and surrounding farmland into a world-class motorsport facility in a tight timeframe, involving consistently high quality work, was a key determinant in Firth being named as sole concrete supplier. 2,000m³ of 30MPa was supplied for the racetrack, pit lanes and corporate boxes. Firth also pre-cast the safety barriers and ripple strips for the track.

OTHER SIGNIFICANT PROJECTS

- Museum of New Zealand, Te Papa Tongarewa
- Auckland International Airport
- Matahina Dam Upgrade
- Napier Wharf
- Wellington Westpac Trust Stadium
- Stratford Power Station
- New Brighton Pier
- Metropolis Apartments
- Sun Alliance Building
- Manukau Wastewater Plant



SUSTAINABILITY: THE FIRTH CONCRETE & CONCRETE MASONRY SUSTAINABILITY LIFECYCLE

- ✓ Environmentally compliant manufacturing plants
- ✓ Surplus water and some aggregates recycled
- ✓ Low transport impacts
- ✓ Leftover concrete returned from construction sites
- ✓ Passive solar heated thermal mass makes completed buildings more energy-efficient

- ✓ Most wash water returned from construction sites
- ✓ Highly durable, low maintenance buildings and no rot
- ✓ High degree of noise control
- ✓ Inherent fire resistance
- ✓ Overall longer effective building life
- ✓ Demolished concrete can be recycled as hard fill or aggregate

For more on Firth's contribution to building a sustainable tomorrow today, visit www.firth.co.nz or call us on 0800 800 576 for our free brochure.



0800 800 576
www.firth.co.nz

Available in

masterspec

www.masterspec.co.nz