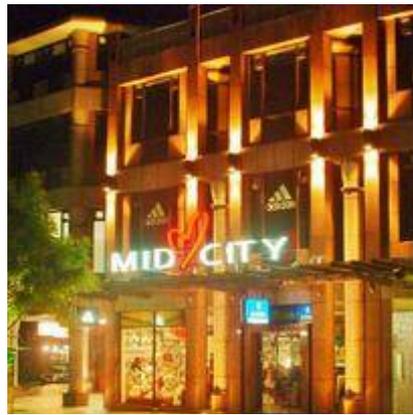


CAPABILITY STATEMENT



NRW Macallan (Fiji) Ltd

Is a Fiji based multidisciplinary consulting engineering company offering services in Project Management, Structural, Civil, Electrical and Mechanical Engineering.

Part of the
NRW Consulting Group of Companies

INTRODUCTION

NRW Macallan (Fiji) Ltd offers a wide range of engineering services covering the disciplines of structural, civil, water and wastewater, mechanical and electrical, land development, roads and bridges, marine infrastructure and project management. We are able to tailor our services to provide the most effective outcomes for our clients.



HISTORY

NRW Macallan (Fiji) Ltd is a multidisciplinary consulting engineering company with a long and proud tradition extending more than forty years in the Pacific. The company was originally registered as Ian Macallan & Co in 1968 and continues to provide a range of high quality engineering services. With the company forming part of the NRW Consulting group of companies, it was renamed NRW Macallan (Fiji) Ltd and provides engineering services throughout the Pacific from its base in Suva, Fiji.

PROJECT MANAGEMENT

NRW Macallan (Fiji) Ltd has more than forty years experience in managing and providing professional engineering services for projects in the Pacific. The delivery of high quality projects requires the assignment of skilled Project managers working to tried and tested systems that support the end result. Our Project Managers are supported by our in-house systems that have been developed to suit local conditions while adopting best practice concepts from overseas countries such as Australian and New Zealand. While we adopt rigorous Quality assurance systems we are also always open to adopting new emerging styles of management and engineering concepts where we can see value to our clients. Public Private Partnerships and EPCM (Engineer Procure Construct and Manage) are both examples of recent project management systems that have been adopted to great effect and address specific Client needs.

The utilisation of our quality control systems and approach ensures that projects are completed within time, budget and to the required quality. Appropriate project management software ranging from Microsoft Project through to Primavera is used according to project needs and Client requirements.



OUR SERVICES



Mid City Commercial Centre – Suva, Fiji



Low Cost Apartment Development – Suva, Fiji



Great Council Of Chiefs Development – Suva, Fiji



Totatoka Resort, Structural Steel Design - Fiji

STRUCTURES

The structural engineering services offered by the company are extensive and modern using state of the art design software including computer aided design, drafting and proprietary software such as AutoCAD, 12D, Microstran, ETABS and MS Towers. The company has undertaken a wide range of structural design and construction supervision services for residential, commercial and industrial clients.

Typical structural professional engineering services include design of single story to multi-level buildings, cyclone assessments and certificates, retaining walls, sports stadiums, hotels, structural design of factories, island resorts and resort swimming pools, structural analysis of existing facilities, analysis and design of telecommunications towers and masts, design of spillage bunding for petrochemical companies, design of marine structures and road and pipe bridges.

In addition to the more conventional structural projects, the company also undertakes more challenging and unusual projects such as the structural assessment of a shipyard Goliath crane including an extensive programme of checking plate thicknesses and thousands of readings in order to evaluate the feasibility that the crane could be viably restored to a safe working condition. Similarly structural assessments of amusement park rides and rugby stadiums would fall into this category.

The company therefore covers the full range of structural services and has extensive in-house skills available to support Clients in Fiji and in the wider Pacific region.



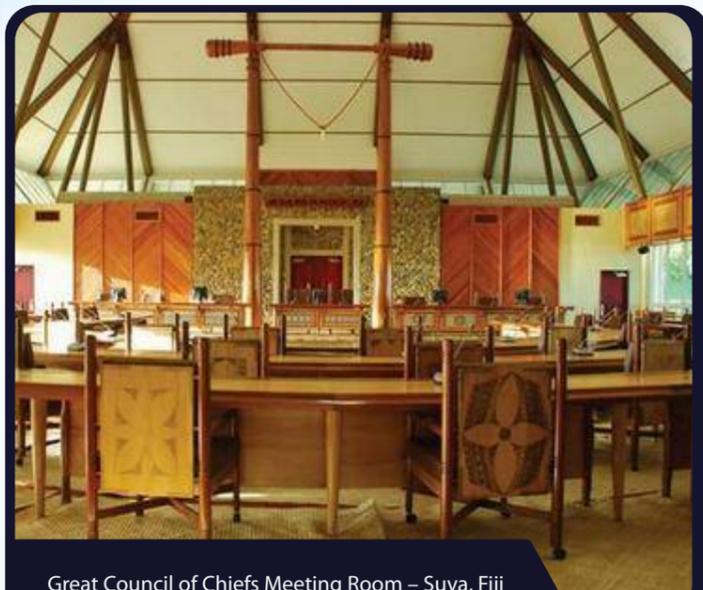
Fiji Gas Storage Tanks: Foundation and Support Designs – Lautoka, Fiji



Lawaqa Park Stadium and Sportsfield – Sigatoka, Fiji

HOTELS AND ISLAND RESORTS

NRW Macallan (Fiji) Ltd has undertaken a significant number of projects at holiday resorts and hotels across Fiji and the Pacific. Key works have included structural design of facilities from small accommodation units to conference and dining facilities, design of jetties and moorings, water and wastewater disposal and treatment as well as the design of swimming pools and recreational structures.



Great Council of Chiefs Meeting Room – Suva, Fiji

ARCHITECTURAL SUPPORT

The company has supported a number of architects in the past to deliver prestigious and inspired buildings. The structural design of architect inspired concepts can be challenging and calls for advanced design skills to produce aesthetically pleasing results that are structurally sound and easily constructed. NRW Macallan has undertaken projects for most if not all leading architectural companies in Fiji and has consistently delivered the desired results to facilitate construction of these eye-catching buildings.



Curved and Cantilevered Steel Staircase – FEA Building, Suva, Fiji



Grand Pacific Hotel Structural Design Works – Suva, Fiji



Holiday Inn Structural Assessment – Suva, Fiji



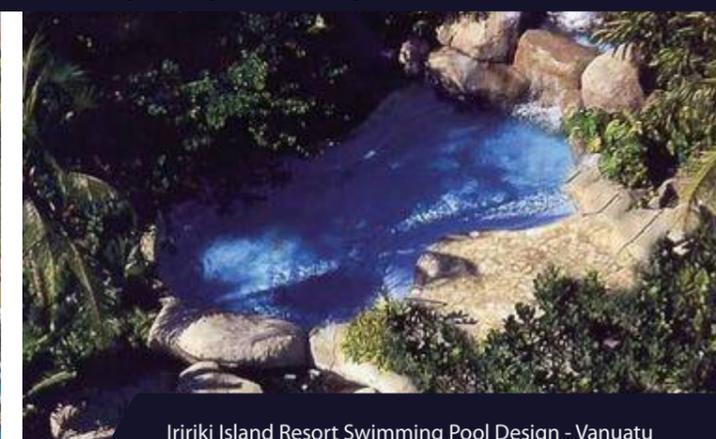
Lalati Resort, Jetty Design – Beqa Island, Fiji



Wynham Resort Pool Structural Design (previously largest pool in Fiji) – Denarau, Fiji



First Landing Resort – Lautoka, Fiji



Iririki Island Resort Swimming Pool Design - Vanuatu



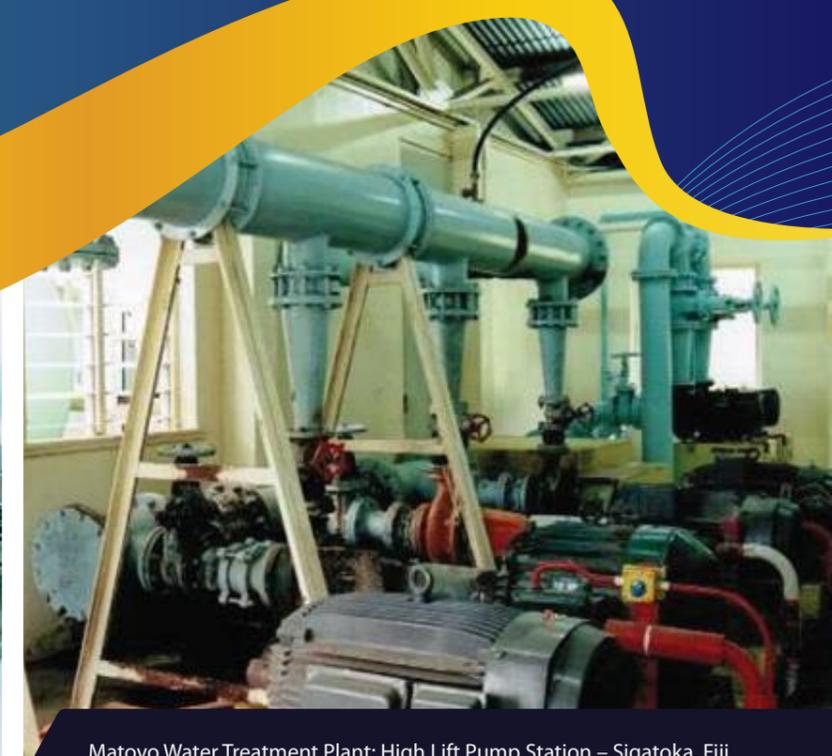
CYCLONE CERTIFICATES

Cyclone certificates constitute smaller projects and thousands of inspections have been carried out over many years throughout Fiji. Inspections of numerous domestic and commercial properties are carried out annually to ensure compliance with insurance companies. Inspections include a report to upgrade residential properties, commercial and industrial buildings to meet the requirements for the issue of a cyclone certificate.

Inspection of Residential Roof Connections – Cyclone Certificate – Nadi, Fiji



Kinoya Wastewater Treatment plant – Suva, Fiji



Matovo Water Treatment Plant: High Lift Pump Station – Sigatoka, Fiji



Electrical Design for PAFCO Fish Processing Factory – Levuka,

ELECTRICAL

A range of electrical works have been undertaken by the company from minor domestic/commercial works through to major lighting projects at industrial or recreational facilities.

Lighting for sports facilities such as Lawaqa Stadium has been undertaken together with major industrial main switchboards to lighting for a medical operating theatre, a general purpose entertainment hall and a fish processing factory. Design requirements for many diesel driven generators have also been carried out at numerous locations. Such works have included the sourcing and selection of the most suitable and cost effective units, with installation up to final commissioning.

Diesel driven generators are frequently required and requirements have varied from large units to power an entire fish processing factory, through to commercial outlets and small standby generators for use at some of the smaller resorts, bakeries and at remote television transmission sites.



BLV Standby Generators – Suva, Fiji



New 600mm Diameter Water Main – Lami, Fiji



Waiva Water Treatment plant – Suva, Fiji



Tamavua Water Treatment Works: Clear Water Well Hydraulic Assessment – Suva, Fiji

WATER AND WASTEWATER

NRW Macallan (Fiji) Ltd has significant past water related experience and has capability across a range of areas of expertise. The Water and Wastewater Section uses the latest software available for activities such as hydraulic analysis and detailed design. The team uses Bentley WaterGEMS, EPANet 2, 12D, HEC-RAS and AutoCAD amongst other packages to assist in hydraulic analysis. Key services include pipeline design, Non-Revenue Water (NRW) reduction, Pump Station Design, River Intake design, small dam design, water and wastewater treatment plant design and water retaining structures (reservoir) design.

Past projects include the upgrading of water and wastewater treatment works, pipeline analysis and design, pump station design, storage reservoir design as well as associated works and buildings used in these projects.



Tailor making your solutions

“The company has developed a reputation for the quality of its work and the range of the services provided.”



Digicel Telecommunications Tower Inspection - Fiji



Inspection and Certification of Crane - Suva, Fiji



Assessment of Amusement Park Rides - Suva, Fiji

MECHANICAL

The company has undertaken a wide range of mechanical engineering services and has developed a reputation for the quality of its work and the range of the services provided. Typical services include condition assessments and inspections of various installations to identify the condition and reliability of the assets, assessment of existing structures and installation of tower cranes etc. In particular, NRW Macallan has undertaken the condition assessment and report on approximately 60 Digicel telecommunications towers across the country. Other services have included inspections, assessment and certification of construction cranes as well as testing and analysis of port cranes such as “Goliath” for reliability and fitness for purpose.

ROADS AND BRIDGES

The company has a history of integrating roads and structural design to provide an all-in-one solution to Client needs. The key services offered include concept design with due consideration for current design standards and international best practice, geometric road design based on appropriate standards and road pavement design. Road design has been undertaken independently for agencies such as the Public Works Department or as part of the provision of services for new land subdivisions.

As part of the road design packages, road bridges and water pipe support bridges at river crossings are routinely designed.



Laqere Pipe Support Bridge (40m span) under construction – Suva, Fiji



Wainibuku Road Bridge – Suva, Fiji

LAND DEVELOPMENT PROJECTS

The company has undertaken a number of land development projects designing all of the services namely roads, water, wastewater and electricity. All design is undertaken to the highest standards using software packages such as 12D and AutoCAD together with specialist engineering knowledge.

In a number of cases, these developments have been undertaken where an informal low cost settlement has already been established over the years. In such cases, design and construction within such closely confined “squatter” areas is particularly challenging and designs have to be particularly well formulated to avoid clashes with existing infrastructure.



First Landing Resort – Lautoka, Fiji



OMKAR Sub-Division – Suva, Fiji

MARINE

The company has undertaken a number of marine projects including a range of projects from marine navigation beacons to slipways and marine structures. Design, supervision and general consulting works have included slipways from 100 to 1000 tons. Past projects have included upgrading of beacons at sea, proposed expansions to a shipyard to include a new major slipway and expansions to an existing slipway site. A major upgrade was successfully carried out to a 200 ton slipway that included submerged concrete and associated works. Investigation drilling was also carried out below water for a new deep water port. Design work has also been carried out for jetties at various resorts.



Davit Launch Platform – Navy Training Centre, Tuvalu



Davit Launch Platform – Navy Training Centre, Tuvalu

PACIFIC REGION PROJECTS

NRW Macallan provides its services not just to Fiji but to the greater Pacific Region. A number of projects have been provided in the Pacific in the following countries:

- Tonga
- Samoa
- Kiribati
- New Caledonia
- Solomon Islands
- Tuvalu
- Vanuatu
- Papua New Guinea
- East Timor

KEY CLIENTS

- | | | | |
|--|---|--|------------------------------------|
| Air Pacific Ltd | Vinod Patel | Nadi Handicraft Centre | Shrangri-La's Fijian Resort |
| Air Fiji | Communications Fiji Ltd | Nasese Medical Centre | FIRCA |
| Sigatoka Town Council | Bedarra Beach Inn | Solander (Pacific) Ltd | Fiji Development Bank |
| Telecom Fiji Ltd | New Zealand High Commission | Public Rental Board | Bible Society of the South Pacific |
| Vodafone Fiji Ltd | Embassy of the Federated States of Micronesia | Water Authority of Fiji | Lomaiviti Provincial Council |
| Digicel (Fiji) Ltd | Embassy of Japan | Scubahire Ltd | Fiji Palms Beach Club |
| Fiji Electricity Authority | Fiji Industries Ltd | South Pacific Distilleries | Fiji Meats Ltd |
| Pacific Fishing Co Ltd | Fiji International Telecommunications Ltd | Total (Fiji) Ltd | Tabua Investments Ltd |
| Pacific Coatings Ltd (Dulux) | Fiji National Provident Fund | Turtle Island Resort | Flour Mills of Fiji Ltd |
| Fiji Gas Ltd | Fiji Muslim League | University of the South Pacific | Post Fiji Ltd |
| Rewa Co-operative Dairy Co Ltd | Fiji Ships & Heavy Industries Ltd | Nausori Town Council | Land Transport Authority |
| PA Lal (Holdings) Ltd | Fiji Television Ltd | Ministry of Local Government, Urban Development, Housing & Environment | Outrigger on the Lagoon Fiji |
| ASCO Motors | First Landing Beach Resort & Villas | Energy & Rural Electrification Department | New Crest Mining |
| Home Finance Co Ltd | Fulton College | Toberua Island Resort | Fiji Investment Co Ltd |
| The Hot Bread Kitchen | Maravu Plantation Resort | Pacific Properties Ltd | Australian Defence Force |
| Holiday Inn Suva | Tokatoka Resort Hotel | Fiji Foods | Naigani Island Resort |
| Goodman Fielder International (Fiji) Ltd | Housing Authority | Ministry of Trade and Commerce | Koro Sun Resort |
| Airports Fiji Ltd | i Taukei Trust Fund Board (formally BLV) | Ministry of Education | Yatule Beach Resort Ltd |
| Fiji Broadcasting Corporation | Jehovah's Witnesses of Fiji | Fiji Education Sector Programme | Solomon Kitano Mendana Hotel |
| Australia & New Zealand Banking Group | Mid City | Public Works Department | Lalati Resort |
| Fiji Sports Council | Kidney Foundation of Fiji | Apostles Gospel Outreach Fellowship International | Katafanga Island resort & Spa |
| BSP | Mobil Oil Fiji | | Munroe Leys |
| Castaway Island Fiji | | | |

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NRW MACALLAN (FIJI) LTD
CONSULTING ENGINEERS

Tailor making your solutions