



ZACARA

INNOVATION ENGINEERED

Water & Sanitation | Structures | Transportation | Infrastructure Planning | PPP Advisory | Digital Engineering |
AI | BIM | GIS | MEI

COMPANY OVERVIEW

ZACARA (Pty) Ltd is a forward-thinking, multi-disciplinary engineering consultancy delivering integrated infrastructure and technology-driven solutions across South Africa and beyond.

The company combines engineering excellence with advanced digital innovation, providing a seamless, end-to-end service offering across the full project lifecycle, from feasibility and planning through to design, implementation, and operational optimisation.

ZACARA operates at the intersection of engineering, technology, and data intelligence, enabling clients to achieve sustainable, efficient, and future-ready infrastructure outcomes. This integrated approach reflects the evolution of modern engineering consultancies toward data-driven, technology-enabled delivery models.



VISION

"To be a leading, innovative, and empowered engineering consultancy delivering intelligent, sustainable, and high-performance infrastructure solutions that contribute meaningfully to economic and social development."

MISSION

"To achieve customer satisfaction through excellence in professional engineering and management services that demonstrate technical excellence driven by integrity, innovation, and multidisciplinary expertise."



WHO WE ARE

Our team combines specialist expertise with a collaborative approach, enabling efficient and integrated project delivery. We are driven by quality and innovation, continually improving our performance to deliver practical solutions that add real value to our clients and communities.

ZACARA is a **100% black-owned, Level 1 B-BBEE contributor**, committed to transformation and sustainable development.



OUR PHILOSOPHY

We believe infrastructure should not only meet today's requirements but be adaptable, data-informed, and resilient for the future. Our solutions are therefore:

- Technically robust and standards-compliant
- Digitally enabled, data-driven engineering and decision-making
- Integration of AI, IoT, BIM, and GIS technologies
- Financially optimised (CAPEX + OPEX focus)
- Environmentally responsible and sustainable lifecycle-focused infrastructure solutions
- Operationally sustainable and agile, client-centric delivery



OUR VALUE PROPOSITION

We deliver measurable value through:

- Reduced capital and operational expenditure
- Improved infrastructure reliability and resilience
- Enhanced asset visibility through digital systems
- Accelerated project delivery through integrated workflows
- Data-driven decision-making across the asset lifecycle

This aligns strongly with modern infrastructure demands and differentiates Zacara from traditional consulting models

COMMITMENT TO QUALITY & SUSTAINABILITY

ZACARA is committed to:

- Engineering excellence and compliance with South African standards
- Sustainable and environmentally responsible design
- Continuous innovation and improvement
- Ethical, transparent, and accountable service delivery



OUR MARKET POSITION

ZACARA supports both public and private sector clients across a broad range of infrastructure and development disciplines enabling integrated, future-ready systems that enhance operational efficiency and long-term sustainability.

ZACARA operates as a next-generation engineering consultancy, combining the discipline of traditional engineering firms with the agility and intelligence of digital systems. While conventional firms focus on design delivery, ZACARA focuses on:

- Performance-driven infrastructure
- Smart systems integration
- Lifecycle optimisation and asset intelligence

This positions ZACARA as a strategic partner, not just a design consultant.



PROFESSIONAL AFFILIATIONS

ZACARA (Pty) Ltd maintains strong alignment with recognised professional bodies within the engineering and built environment sectors. The company and its professionals are affiliated with leading industry institutions, ensuring adherence to best practice, regulatory compliance, and continuous professional development.

ZACARA and/or its members are registered with the following professional organisations:

- The Engineering Council of South Africa (ECSA)
- The South African Institution of Civil Engineering (SAICE)
- The Institute of Municipal Engineering of Southern Africa (IMESA)
- The Water Institute of Southern Africa (WISA)
- The Institute of Professional Engineering Technologists (IPET)

These affiliations reinforce Zacara's commitment to professional excellence, ethical practice, and compliance with South African engineering standards. Through active participation in these institutions, the company remains at the forefront of industry developments, technical innovation, and regulatory frameworks governing infrastructure delivery.



OFFICES

ZACARA maintains a strategically positioned network of offices across South Africa, enabling responsive, locally informed service delivery while maintaining national project execution capability. Our geographic footprint ensures proximity to key municipal, industrial, and infrastructure hubs, allowing us to engage closely with clients and stakeholders while delivering efficient, context-specific engineering solutions. This distributed presence supports our integrated service model, combining technical excellence with practical implementation across diverse regions.

Office Locations:

1. Pretoria
2. Secunda
3. Durban
4. Richards Bay
5. Port Shepstone
6. Cape Town
7. Kwangwanase





INTEGRATED SERVICE OFFERING

Water & Sanitation | Structures | Transportation | Infrastructure
Planning | PPP Advisory | Digital Engineering | AI | BIM | GIS | MEI

Page 9

CIVIL & INFRASTRUCTURE ENGINEERING

Zacara delivers integrated civil and infrastructure engineering solutions across the full project lifecycle, from feasibility and planning through to detailed design, construction support, and operational optimisation. Our approach combines engineering excellence with practical, cost-effective solutions tailored to municipal, industrial, and private sector client needs.

Core service areas include:

- Water supply, sewer, and stormwater systems
- Bulk pipelines, pump stations, and reservoirs
- Roads, transportation, and access infrastructure
- Urban infrastructure and municipal services
- Infrastructure planning and master planning



WATER & SANITATION ENGINEERING (SPECIALIST)

Zacara provides specialist water and sanitation engineering services focused on the planning, design, optimisation, and performance enhancement of water and wastewater systems. Our expertise spans conventional and advanced treatment processes, network hydraulics, and smart infrastructure integration, enabling resilient, efficient, and compliant service delivery.

Core specialist services include:

- Water and wastewater treatment systems
- Hydraulic modelling (steady state and transient analysis)
- Pressure management and NRW reduction
- Smart water networks and monitoring systems
- Sewer network design and optimisation



STRUCTURAL ENGINEERING

Zacara provides comprehensive structural engineering services across a wide range of infrastructure and building projects, from concept development and detailed design through to condition assessment, rehabilitation, and asset management. Our approach emphasises structural integrity, durability, constructability, and long-term performance.

Core service areas include:

- Reinforced concrete and structural steel design
- Water-retaining structures (reservoirs, tanks, chambers)
- Structural assessments, rehabilitation, and strengthening
- Buildings and industrial structures
- Bridge engineering and management systems;



WET SERVICES & BUILDING INFRASTRUCTURE ENGINEERING

ZACARA provides specialist wet services engineering for buildings and developments, ensuring efficient and compliant internal water and sanitation systems. Scope Includes:

- Hot and cold water reticulation systems
- Water storage, booster systems, and pressure management
- Hot water generation systems (electric, solar, hybrid)
- Soil and waste drainage systems
- Internal sewer and plumbing systems
- Roof drainage and rainwater harvesting systems

This capability enables ZACARA to deliver fully integrated infrastructure solutions, from bulk supply through to end-user systems, ensuring optimal performance, compatibility, and lifecycle efficiency.



MINING INFRASTRUCTURE SERVICES

ZACARA (Pty) Ltd provides streamlined, multi-disciplinary engineering services for mining projects, covering both open-pit and underground operations. Our core services include:

- Bulk infrastructure design and construction management
- Water systems: planning, licensing, water balances, treatment, and disposal
- Access and haul roads, including drainage and bridge structures
- Mining structures: steel, concrete, and composite facilities
- Tailings and return water infrastructure
- Contract documentation, administration, and commercial management

We deliver efficient, compliant, and sustainable solutions through an integrated, technology-driven approach.



MECHANICAL, ELECTRICAL & INSTRUMENTATION

Zacara delivers fully integrated mechanical, electrical, and instrumentation engineering solutions that support the efficient operation, control, and optimisation of infrastructure and process systems. Our approach ensures reliability, energy efficiency, automation readiness, and seamless integration across all project phases—from design through to commissioning and operation.

Core service areas include:

- Pumping systems and process engineering
- Electrical reticulation and power supply systems
- SCADA, automation, and control systems
- Instrumentation and real-time monitoring systems



PROJECT & PROGRAMME MANAGEMENT

Zacara provides comprehensive project and programme management services across the full infrastructure lifecycle, ensuring that projects are delivered efficiently, within budget, and in compliance with contractual and regulatory requirements. Our approach combines structured methodologies with practical, delivery-focused execution to manage risk, optimise performance, and achieve successful project outcomes.

Core service areas include:

- Project and programme management (PMBOK aligned)
- Contract Administration (FIDIC, NEC, GCC)
- Construction Monitoring & QA
- Procurement & Tender Documentation
- Programme & Asset Management



ADVISORY & PROFESSIONAL SERVICES

Zacara provides high-level advisory and professional services to support informed decision-making, strategic planning, and successful infrastructure investment. Our approach integrates technical expertise, financial insight, and practical implementation strategies to guide clients from concept through to bankable and executable projects.

Core service areas include:

- Infrastructure advisory and strategic planning
- Public-Private Partnership (PPP) advisory
- Feasibility and bankable studies
- Technical due diligence and audits
- Asset management and lifecycle planning



Advisory & Consulting Services

Empowering clients with strategic solutions and expert guidance.

DIGITAL ENGINEERING & TECHNOLOGY SOLUTIONS

ZACARA differentiates itself through the integration of advanced technologies into engineering workflows:

- Artificial Intelligence (AI) and Machine Learning (ML)
- Internet of Things (IoT) for real-time monitoring
- GIS-based infrastructure planning and asset management
- BIM and digital twin environments
- CAD and 3D modelling
- Point cloud to Digital Models
- Custom engineering software and automation tools



ZACARA (Pty) Ltd is a next-generation engineering consultancy, combining traditional engineering expertise with advanced digital capabilities to deliver innovative, efficient, and sustainable infrastructure solutions across the full asset lifecycle.

CONTACT DETAILS

 +27 (0) 83 515 3444

 info@zacara.co.za

 Postnet Suite 201, Private Bag X13
Elarduspark, Pretoria
0047

