



ELWATINI



We pride ourselves on our capability to execute your project through our collective technical, project execution, construction, financial, and relationship-building skills

Our Vision

To be a leading engineering consulting company providing professional engineering, design, project management, and construction management services to both private and public sector clients within the built environment.

Our Mission

To deliver unprecedented business results to our clients through a commitment to quality; higher standards of safety and risk management; and continuous performance improvements in all projects

Our Values

We pledge and commit to demonstrate ethical behaviour in all our endeavours, which are based upon the following values:

- Reliability
- Integrity
- Loyalty
- Confidentiality
- Leadership
- Innovation
- Quality and accountability
- Health and safety





About Elwatini (Pty) Ltd

Elwatini (Pty) Ltd is a black-owned and controlled South African company.

We have vast experience in railway, civil, electrical and mechanical engineering, and project and construction management.

- » **Railway engineering studies**
- » **Railway engineering design**
- » **Civil, water and structural design**
- » **Heavy and light current electrification**
- » **Mechanical design**
- » **Construction monitoring and project management**

We are involved in all stages of projects from concept development and project implementation to operations and maintenance.

Our Main Services



Railway Consulting Services

Our people are professionally registered and specialists in their fields. Combined, we have experience in freight and passenger railway engineering studies; civil infrastructure; overhead traction equipment; power supply and lighting; signalling and telecommunication; mechanical and rolling stock requirements analysis; maintenance management; operations and rail safety services; and derailment/train incident investigation.

Our key personnel have experience as contractors, operators and maintainers of engineering infrastructure. Our design expertise is backed by practical and hands-on knowledge. We tailor our services to the needs of our growing client base and focus on maintaining and building long-term relationships with our clients.

This practical knowledge enables us to add value during project delivery stages, operations and maintenance, by looking at the client's needs and engineering solutions holistically.

We see every project as a relationship and we take the time to understand the client and stakeholder requirements, existing infrastructure, operation, and resources, to provide cost-effective and profitable solutions that will differentiate our clients from their competitors.

With detailed planning and an implementation strategy, we minimize implementation time and therefore impact daily production and operations.

Maintenance Planning & Management

Elwatini provides services in multidisciplinary railway infrastructure planning, maintenance management, and the execution of maintenance work. We develop and implement maintenance strategies based on the client and stakeholder requirements to ensure that the railway infrastructure meets the current and future business needs.

We assist clients in complying with the railway safety laws and the operator's requirements. We partner with experienced contractors in all rail disciplines to execute maintenance work.

Project management

Our project management approach is based on the principles as taken from guide to the Project Management Body of Knowledge (PMBOK®), created by the Project Management Institute. By using PMBOK®, project managers are implementing world-class project management systems ensuring a high level of control over all the stages of a project's life cycle. By implementing these project management techniques, we minimise the project cost and time overruns. We use various design, cost management, planning, material control, and document tracking and control software to achieve productive project resource allocations.

Other Services

- » Electrical consulting services
- » Mechanical consulting services
- » Civil, water and structural consulting services
- » Roads and stormwater drainage consulting
- » Construction monitoring

Engineering Projects – Value Chain

We structure our projects and processes to meet the client's business needs whether at stay, in business stage, or at a greenfields stage. The general value chain we follow is:

1. Concept stage
2. Prefeasibility study
3. Feasibility study
4. Execution

Concept stage	Prefeasibility Study	Feasibility study	Execution
■ Identifying business needs ■ Develop options and do preliminary layout ■ Analyse flaws that could hinder the success of the projects ■ Rank options and select preferred options ■ Perform a conceptual design ■ Generate a preliminary cost estimate ■ Produce client reports	■ Confirm output from concept study ■ Desktop study EIA ■ Execute preliminary design of selected options ■ Update cost estimate ■ Develop preliminary procurement strategy ■ Economic evaluation of options ■ Select the best option ■ Produce preliminary schedule	■ Start environmental and social impact assessment ■ Perform basic engineering and train planning ■ Pre-order critical long lead items ■ Undertake execution planning ■ Prepare capital estimate ■ Develop level 3 schedule ■ Generate feasibility report	■ Generate specifications ■ Detailed design ■ Procurement ■ Construction supervision ■ Testing and commissioning ■ Close out report

Typical Rail Projects

Mining Environment

- » Bulk material loading rail balloons
- » Loading yards- front-end loading
- » Drainage and pollution dams
- » Haul roads and railway line service roads
- » Stockyard/overhead crane rails

Infrastructure Projects

- » Railway civil and permanent way
- » Railway route network planning
- » Railway geometric design
- » Railway track drainage and erosion protection
- » Railway yards and train facilities
- » Railway yards pollution control dams
- » Bridges, culverts and all track structures
- » Track permanent way
- » Overhead traction equipment
- » Signalling and telecommunication
- » Passenger stations
- » Load out station

Railway Engineering Studies

- » Passenger demand modelling
- » Freight demand modelling
- » Capacity analysis for the rail system
- » Rail infrastructure and rolling stock
- » Feasibility and economic studies
- » Operation analysis, simulation, and analysis



Projects



PRASA

Gauteng
re-signalling project



TRANSNET

Ngqura 16 Million Tons Per
Annum Manganese Project
Phase 2. FEL 4 design.



HATCH

Independent valuation
of Transnet Freight Rail
network Infrastructure



Quality

Our quality management system is based on the principles of PMBOK®. Our quality policy ensures that we commit to meeting and exceeding the best practice standards within the industry. We aim to ensure that all our stakeholder expectations are met at every step of the project life cycle.

We are in the process of acquiring ISO9001 Certification for Consulting Engineers.

Risk management

We pride ourselves on our capability to coordinate the company's collective technical, project execution, construction, financial, and relationship-building skills using:

- Structured risk and project management tools considering the individual project needs.
- Qualitative and quantitative risk management processes supplemented by a broad risk management plan (RMP) to continuously evaluate projects risks from business development to completions and hand-over



SAPPI NGODWANA

25MW Biomass Plant



PETRA DIAMONDS

Cullinan Mine Stacker
Rail Audit



GLENCORE

Magareng Mine: Stacker Rail
System And Concrete Wall



Contact us today

You will find yourself working in a true partnership that results in an incredible experience, and an end product that is the best.

 +27 682 544 321

 info@elwatinirc.co.za

 www.elwatinirc.co.za