



BENBRIDGE LAND PORT OF ENTRY

# FACILITIES MANAGEMENT

## ENGINEERING PERSPECTIVE

The South African Government has a portfolio of around 100,000 buildings interlinked by infrastructure. Facilities Management is the enabler of business performance, through the lifecycle management of the built environment and support services. This includes:

- Roads, parking, traffic management, gates, fences and stormwater drainage
- Buildings with wet services, air conditioning, electricity and firefighting services
- Bulk water, drinking water purification, sewage collection and wastewater treatment
- Medium and low voltage electricity supply, site distribution and area lighting
- Back-up and off-grid power generation, including photo-voltaic cells

Results have demonstrated value for money and an increased life expectancy of state infrastructure and facilities.



## PROFESSIONAL SERVICES

From 2004 to date, Virtual Consulting Engineers has developed a methodology for the repair, maintenance, operation, and servicing of multiple facilities, which includes:

- Defining infrastructure performance targets over its life cycle, through technical specifications and special conditions of contract
- A contract with 36 - 60 months duration, including a quick repair phase prior to the maintenance servicing phase
- Performance based remuneration, based on *Key Performance Indicators*, for maintaining the specified service level
- Special measures for facilities management, including cleaning, site keeping, supply of consumables, and handling of peak traffic over festive seasons
- Call centres and on-line communication tools to log breakdowns and monitor response time
- Payment reductions in events of excessive breakdown time
- Updating fixed asset registers

Results have demonstrated value for money and an increased life expectancy of state infrastructure.



# PROJECTS



## Land Ports of Entry in North West Province (2004 – 2023)

*Department of Public Works*

Bray, Makgobistad, Ramatlabama, Skilpadshek, Kopfontein, Swartkopfontein and Derdepoort are in semi-arid areas, which require careful management of ground water resources. Treatment requires removal of nitrate and disinfection. Since 2004 our services also included road rehabilitation, stormwater management, and renovations of administration and residential buildings.



## Land Ports of Entry in Limpopo (2004 – 2020)

*Department of Public Works*

Stockpoort, Groblersbridge, Pontdrift, Platjan and Zanzibar allow access to Botswana, with facilities ranging from housing to back-up power supply. At Beitbridge, South Africa's busiest Land Port, leading to Zimbabwe, we developed groundwater resources and drinking water supply including construction of a new 2Mℓ reservoir, with constructed wetlands for effluent polishing. Pafuri Gate has been repaired following flood damage from the combined Luvuvhu and Limpopo rivers. Other facilities included security fencing, roads and traffic management.



## Land Ports of Entry in Mpumalanga (2004 – 2023)

*Department of Public Works*

Lebombo accommodates movement of approximately 4,740,000 travellers per annum with a total of 580 personnel working at the port. Labour intensive practices under the Expanded Public Works Programme (EPWP) have been implemented to a value of 20% of the contract amount. Work included facilities management at Jeppe's Reef, Mananga, Josefsdal, Oshoek, Waverley, Nerston, Emahlathini, Bothashoop and Mahamba providing access to Eswatini.



## Land Ports of Entry in KwaZulu-Natal (2004 – 2018)

*Department of Public Works*

Onverwacht and Golela provide access to Eswatini from KwaZulu-Natal, while Kosi Bay Port links South Africa with Mozambique. The scope of work has included new water purification works, significant repair works to the truck routes, parking areas and road rehabilitation and replacement of gates and fences.



## Kirstenbosch National Botanical Garden (2021 – 2024)

*South African National Biodiversity Institute*

Amongst the world's most beautiful gardens, Kirstenbosch in Cape Town comprises 36 hectares of landscaping merging seamlessly with the fynbos vegetation of Table Mountain. Virtual Consulting Engineers supported SANBI with the management of improving building facilities, including tea rooms, glass house nurseries, educational buildings, bio-diversity centres, irrigation, renewable energy and ventilation systems.



## Parliamentary Housing (2021 – 2026)

*Department of Public Works and Infrastructure*

Virtual Consulting Engineers were appointed as integrated facilities management consultant for parliamentary residential accommodation over a five-year period in Cape Town, including 591 residential houses, 234 apartments and 136 support buildings. Work included preventative maintenance, corrective maintenance, servicing, training, statutory inspections, tests as well operational damages and all other repairs on all components of the specified installations, through electronic asset management support systems.