



SNA Civil and Structural Engineers (Pty) Ltd

(REG. NO. 2005/006128/07)

Company Profile



SOUTH AFRICA: PRETORIA - PIETERMARITZBURG - CAPE TOWN - BLOEMFONTEIN - NELSPRUIT - RICHARDS BAY

AFRICA: ZAMBIA: LUSAKA - BOTSWANA: GABORONE - SWAZILAND: MBABANE - GUINEA: CONAKRY

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SNA Key Services & Expertise

SNA Civil & Structural Engineers (Pty) Ltd has been involved in all aspects of Civil Engineering and in particular has specialised in Roads Engineering and other Infrastructure related work and all the sub-divisions thereof.

Design of Major Road Networks

Design of Grade Separated Interchanges

Planning, Design and Implementation of Toll Roads

Traffic and Transportation Engineering

Geotechnical Engineering and Materials Testing

Pavement Design, Management and Rehabilitation

Bridge and Structural Design in Concrete and Steel

Bridge Load Assessment and Testing

Commercial & Industrial Structures

Civil Infrastructure for the Mining Sector

Hydrology, Hydraulics and Storm water Management

Railway Engineering

Airport Designs

Weighbridge Designs / Load Control Centres

Civil Engineering Township Services

Community Based Projects and Training

Civil and Structural Design of Sports Facilities

Contract Procurement and Documentation

Project Management and Contract Administration

Programme Management

Mediation and Conciliation



SNA Civil & Structural Engineers (Pty) Ltd is a Level 1 B-BBEE Accredited, Civil and Structural Consulting Engineering Services Company, with Materials Testing Laboratories.

Since its inception in 1955 in Pretoria, SNA Civil & Structural Engineers (Pty) Ltd has been involved in all aspects of Civil Engineering and in particular has specialised in Roads Engineering and other Infrastructure related work and all the sub-divisions thereof, including bridges and other related structures.

We currently have offices in Pretoria (Head Office), Pietermaritzburg and Richard's Bay (KwaZulu-Natal), Cape Town (Western Cape), Bloemfontein (Free State), Mbombela (Mpumalanga), Polokwane (Limpopo), Lusaka (Zambia) and Gaborone (Botswana).

The company is currently operating in the following African countries: South Africa, Namibia, Botswana, Zambia, Mozambique, Kenya, DRC, Chad, Sierra Leone and Guinea.

The company has been practising for more than 60 years and has undertaken projects for almost all the State Road Authorities in South Africa as well as for various local authorities and other large private

bodies. The company has enjoyed continued growth and the number of personnel is approximately 300 at present, including ± 50 qualified engineers. The company utilises modern state of the art computer hardware, software and networking resources resulting in quality designs.

The management of SNA Civil & Structural Engineers (Pty) Ltd are experts in their respective disciplines and are committed and disciplined to grow and develop in terms of the political landscape and demographics of South Africa. With the many years of solid engineering experience and knowledge, SNA Civil & Structural Engineers is well positioned to deliver to prospective and existing clients' high quality, state of the art engineering solutions.

SNA Key Services & Expertise

- **Design of Major Road Networks**
- **Design of Grade Separated Interchanges**
- **Planning, Design & Implementation of Toll Roads**
- **Traffic and Transportation Engineering**
- **Geotechnical Engineering and Materials Testing**

- **Pavement Design, Management & Rehabilitation**
- **Bridge and Structural Design in Concrete & Steel**
- **Bridge Load Assessment and Testing**
- **Civil Infrastructure for the Mining Sector**
- **Hydrology, Hydraulics and Storm Water Management**
- **Project Management and Contract Administration**
- **Railway Engineering**
- **Airport Designs**
- **Weighbridge Designs**
- **Civil Engineering Township Services**
- **Community Based Projects and Training**
- **Civil and Structural Design of Sports Facilities**
- **Contract Procurement & Documentation**
- **Programme Management**
- **Mediation and Conciliation**

The company implements and complies to a world-class quality management system (ISO 9001 : 2015 Accredited) contributing to total quality management in all of its operations and activities. To ensure that our employees are delivering best practice and latest innovative thinking solutions to our clients, the company has a much admired learning and development training policy, to allow them to keep abreast of superior knowledge, skills and break-through thinking in the field of innovative engineering solutions. At SNA Civil & Structural Engineers (Pty) Ltd we encourage “out-of-the-box” thinking in everything that we do, and continue to inspire our employees to be innovative.

SNA Civil and Structural Engineers (Pty) Ltd is a limited liability company, managed by professionals (mostly civil engineers) and is entirely responsible for its own financing. None of the directors or employees has a vested interest in any company involved in financing, manufacturing

or supplying of products related to the engineering field in which the company operates.

Mission Statement

The mission of SNA is to provide clients with engineering excellence in Planning, Design, Project Management and the Construction of Projects using state-of-the-art technology, teamwork and professionalism and to grow and develop in terms of the political landscape and demographics of South Africa.

Vision

Clients recognising SNA as their first choice when deciding on civil & structural engineering solutions. Employees knowing that SNA is the preferred employer in the consulting engineering fraternity. Associates & business partners recognising SNA as a valued partner in delivering world-class engineering solutions.

Awards

- **SAICE Transportation Engineering Award 2015: The First Full Scale EME Commission Project in South Africa.** SNA Project: *Periodic Maintenance of National Route 3 Section 1 from Candella Road (Km 8.500) to Paradise Valley (Km 17.000).*
- **Professional Management Revue Africa (PMR) Gold Award – 2006.** *Consulting Engineers to Public Sector, Transport & Roads for Medium Sized companies.*
- **SAICE Technical Excellence Project Award – 2005.** SNA Project: *Repairs to the CH Mitchell Bridge no 61 over the Mtamvuna River.*
- **SAICE Pietermaritzburg Branch Award for Technical Excellence – 2005.** SNA Project: *Repairs to the CH Mitchell Bridge No. 61 over the Mtamvuna River.*

- **SAICE Pietermaritzburg Branch Award for Technical Excellence – 2000.** SNA Project: *Rehabilitation of the CH Mitchell Bridge No. 61 over the Mtamvuna River near Port Edward.*
- **SAICE Pietermaritzburg Branch Award for Technical Excellence – 1999.** SNA Project: *Main Road 439: Hluhluwe to Lower Mkuze-Mzinene River Bridge.*
- **SAICE Pietermaritzburg Branch Award for Technical Excellence – 2002.** SNA Project: *Mooi-Mgeni River Transfer Scheme (Phase 1).*

SNA Commitment to Service Quality

SNA and its subsidiaries are committed to deliver a quality service to its client(s) using modern and up to date procedures and techniques.

SNA prides itself in terms of the recognized position achieved in the civil engineering field over extended years of high quality service delivery. The management of the company is confident that the above statement will be verified by all client organisations included in this overview.

The staff employed by the company, with minimal turn over, commits themselves to the mission of the company which enjoys high and quality service delivery and standing in the civil engineering environment.

SNA Company Structure

Board of Directors

JWB Stoltz, Pr Eng. (Managing Director)

A deV Taljaard, Pr Eng.

KG Malcomson, Pr Eng., PrCPM

R Shaik

RP Makgoba, Pr.CHSA

LN Mahlati

Divisional Directors

QM Smith, Pr Eng.

JAE Swanepoel, Pr Eng.

RJ van Huyssteen (Jnr), Pr Eng.

GJ Loubser, Pr Eng.

EO Funk, Pr Eng.

Laboratory Managers

H Diederiks, Pr Tech Eng.

C Swart

Consultants

DS Temple, Pr Eng., PrCPM

Generic Overall Organisational Chart



SNA Corporate Information



Subsidiaries of SNA: SNALAB

SNA has a service orientated subsidiary which assists the company in the performance of its functions, the SNALAB (Pretoria & Richards Bay) is principally a service arm of the company and also operates commercially as a laboratory providing services in the field of Civil Engineering, Soils and Material Testing.

SNALAB has suitable equipment and staff for a number of field laboratories for road building acceptance control and testing.

Black Economic Empowerment

SNA is a BEE company with 61.37% black ownership with a 31.46% black women ownership and is a Level 1 contributor.

SNA transformed into a BEE company on 1 March 2005 using a broad based model for Black Empowerment. Permanent staff has been empowered by giving them direct shareholding in the company.

Quality Assurance (ISO 9001 : 2015)

SNA Civil & Structural Engineers (Pty) Ltd subscribe, implement and continuously improve on an in-house quality management system that is ISO 9001 : 2015 accredited by ISOQAR. Registration covers a Quality Management System for the provision of civil and structural engineering services.

Certificate No. 7759-Q15-001

ISO 9001 is the internationally recognised standard for the quality management of businesses. It applies to the processes that create and control the products and services an organisation supplies. It prescribes systematic control of activities to ensure that the needs and expectations of customers are met. It is designed and intended to apply to virtually any product or service, made by any process anywhere in the world.

SNALAB (Material Testing Laboratory)

The quality management system of SNALAB Pretoria and SNALAB Richards Bay has been accredited by SANAS in terms of ISO/IEC 17025:2005.

SNALAB Pretoria: Certificate no. T0345
SNALAB Richards Bay: Certificate no. T0341

Professional Indemnity Insurance

The company maintains professional indemnity insurance as follows (*supporting documents attached*):

Professional Indemnity

R60 000 000 each and every claim.

Public Liability

R60 000 000 each and every claim.

Occupational Health and Safety (OHS)

SNA has a commitment to comply with the Occupational Health and Safety Act and Regulation and in particular the Construction Regulations.

Environmental Management

SNA has a commitment to comply with all Environmental Regulations and to comply with the Environmental Management Plan as compiled per project.

Membership

SNA Civil and Structural Engineers (Pty) Ltd is a member of the following engineering institutions:

- Consulting Engineers South Africa (CESA) No. 234
- South African Road Federation (SARF) (10 March 1964)
- Concrete Manufacturers Association (CMA)
- Concrete Society of Southern Africa (CSSA)

In addition, **individual members of staff** are, in their personal capacity, members of the following institutions:

- South African Institution of Civil Engineering (SAICE)
- Institute of Structural Engineers (UK)
- Institution of Civil Engineers (ICE) (UK)
- Society for Asphalt Technology (SAT)
- South African Council for Project and Construction Management Professions (SACPCMP)
- British Engineering Council (Registered as Chartered Engineers)
- Road Pavement Forum
- Project Management Institute
- Zambian Institute of Engineers

SNA Employees



SNA Personnel Compliment

As on June 2018

Description	Total
Professional Engineers (Pr. Eng.)	18
Engineers	23
Professional Technologists (Pr. Tech. Eng.)	8
Technologists	6
Professional Technicians (Pr. Techni. Eng.)	2
Technicians	15
Technical Assistants	16
Other Registered Professionals (PMP, CA)	1
Unregistered – Other (Surveyors, etc.)	5
CAD Operators & Draughtspersons	7
Administrative / Support Personnel	28
Laboratory Assistants	79

CV's of lead staff are available on request

Site Monitoring Staff & Other Staff

SNA Civil and Structural Engineers and SNALAB employs technical staff and material testers whom are performing Site Monitoring duties, Contract Administration and Material Testing on a permanent basis.

Further to the above, including cleaners etc. SNA employs a further 30 workers on a contract basis.

The total staff compliment of SNA has been approximately 300 persons over the last 5 years.

Skills Development

Continuous Professional Development (CPD)

- SNA and SNALAB accept full financial and planning responsibility to enable registered professionals to attend applicable courses as required by the various professional bodies.
- SNA further subscribes to a policy of specialized development and training in the field of civil engineering for identified professional employees to ensure high quality technical service delivery at all times.

In-house Training

- SNA and SNALAB are committed to continuous in-house training and development of technical and other staff. Special programmes are maintained for this development.
- Further to the above SNA use the services of consultants namely Messrs. R.J. van Huyssteen, G.B. Hart and D.S. Temple, all of whom each have in excess of 40 years of applicable experience in the field of road and bridge engineering.

Employment & Training of HDI (Historically Disadvantaged Individuals) Employees

It has been the policy of the firm over the past 20 years to both employ suitably qualified HDI's and also to train existing technical employees to develop new skills and carry out more responsible work. In this regard a number of technical assistants have been trained and are now able to carry out specialist work. In recognition of this the company's policy allows for the issuing of equity shares in the company to successful HDIs.

Empowerment of SNA & SNALAB Employees

In the model adopted by SNA all the staff can be empowered by becoming shareholders in the company. Shares are offered to all permanent staff and the shareholding is based on their occupational categories and levels within the firm.

The Consulting Engineer & the Limited Company

The nature and working environment of the consulting engineer in South Africa differs little from those of his counterparts in North America and most European countries.

All consulting engineers are subject to some form of registration. In terms of the Professional Engineers Act individuals are obliged to register with the Engineering Council of South Africa (ECSA) as Professional Engineers, Technologists or Technicians. Without such registration and without complying with certain other requirements, one may not practice as a consulting engineer.

A private professional consulting engineering practice is run as a business by an individual, partnership or company. The practice enters into contracts to provide professional engineering consulting services and to design and monitor the construction of engineering projects.

South African law provides for companies to be formed to fulfill the requirements of professional practices. The company is fully liable for the professional work undertaken in the case of a limited liability company.

In the case of a consulting engineering firm, the majority of the shares are normally held by the directors and active partners or individuals in the company.

Further Information Required

Any further information or specific details required (and/or verification of information herein supplied) will be provided by the Management of SNA Civil and Structural Engineers (Pty) Ltd.

This overview of the company is being offered in good faith as to enable the reader insight into the company regarding its standing in the engineering field, the composition of the company and its staff as well as its expertise and past experience.

SNA Expertise & Experience



Services Provided by the Company

Design of Major Road Networks

Design of Grade Separated Interchanges

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Geotechnical Engineering and Materials Testing

Pavement Design, Management and Rehabilitation

Bridge and Structural Design in Concrete and Steel

Bridge Load Assessment and Testing

Commercial & Industrial Structures

Civil Infrastructure for the Mining Sector

Hydrology, Hydraulics and Storm Water Management

Railway Engineering

Airport Designs

Weighbridge Designs

Civil Engineering Township Services

Community Based Projects and Training

Civil and Structural Design of Sports Facilities

Contract Procurement and Documentation

Project Management and Contract Administration

Programme Management

Mediation and Conciliation

Roads Engineering



Since its inception in 1955 SNA has in particular specialised in the field of Road Engineering which has been its core field of enterprise over the years. SNA has planned, designed and supervised the construction of hundreds of kilometres of surfaced rural and urban roads, freeways and interchanges and played a major role in the development of the road infrastructure network of Southern Africa. The firm has undertaken projects for almost all the State Road Authorities in South Africa as well as various Local Authorities, other large private bodies and neighbouring countries.

As the road infrastructure network has developed, it has required maintenance and rehabilitation to provide the public with good roads. SNA has developed skills in Road Pavement Management Systems and Road Rehabilitation Systems and is able to offer clients specialist services in this field.

SNA offers professional services in the full spectrum of skills required for developing roads, freeways and access and fully directional interchanges in South Africa including the development and integration of the following:

- ***Feasibility studies***
- ***Route evaluation and location***
- ***Traffic studies***
- ***Consultation with national, provincial and local authorities and the public***
- ***Environmental impact analysis***

- ***Negotiation with utility owners for the relocation of services***
- ***Geometric design***
- ***Pavement design***
- ***Materials investigation, utilisation & design***
- ***Storm water drainage design***
- ***Bridges & other road related structures design***
- ***Project documentation & tender evaluation***
- ***Project management and site supervision***
- ***Weighbridge Designs***

With the on-going need to maintain the existing South African Road Network, SNA has developed effective methods regarding the rehabilitation of both rigid and flexible pavements. Some facets of this specialist field include the following:

- ***Visual surveys***
- ***In-situ field testing***
- ***Pavement analysis & deterioration models***
- ***Pavement strategies***
- ***Value engineering & economic analysis***
- ***Specialised project documentation & tender evaluation***
- ***Project management and site supervision***



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Planning, Design & Implementation of Toll Roads



SNA's experience in Toll Roads in South Africa and Mozambique started in the 1980's.

Extent

SNA has more than 30 Years of Toll Road Experience:

- Initial Construction Works Designs±4100 Lane Kms
- Additional Construction Works Designs.±3 000 Lane Kms
- Bid Designs ±5 400 Lane Kms

Life Cycle Costing

- Divide Toll-Road in logical sections.
- Preparing winning Technical Proposals taking cognisance of Value Engineering.

- Pavement Strategies at Interventions
- Traffic Studies to develop Geometric & Pavement Upgrades.
- Initial Construction Works (ICW).
- Routine Maintenance Plan.
- Heavy Maintenance Plan.

Other PPP Experience

Gautrain High Speed Urban Rail System:

- 20km Main Line Design
- Complete Train Depot
- 2 Bus Depots

Route	Description	Type	Phase	Year	Approximate Length (Km)
N1-22	Warmbaths - Kranskop	State	Design & Construction	1986	20
N1-17	Kroonstad - Koppies	State	Design & Construction	1987	110
N1-23	Kranskop – Polokwane Toll Road	State	Bid Design	1994	143
N4	Witbank – Maputo Toll Road (Total 460Km)	PPP	Bid, Design & Constr.	1997- Pres	370-SA; 90-Moz
N3	Heidelberg - Cedara	PPP	Bid, Design & Constr.	1997-Pres	427
N4 West	Pretoria - Zeerust	PPP	Bid Design	1998	246
A1	Jamaica: Kingston - Montego	PPP	Bid Only	2002	150
N1-20	Misgund – 14 th Avenue	State	Design & Constr.	2007	20
N1/N2	Winelands Toll Road	PPP	Bid Design	2009	190
M1	Mauritius Toll Road	PPP	Bid Design	2010	60
-	Nairobi-Nakuru Mau Summit, Kenya	PPP	Bid Design	2018	200
New Road	Lamu-Garissa-Isiolo Road, Kenya	PPP	Detail Design	2018	540
N1	N1-Toll Road, Conakry-Kindia, Guinea	PPP	Feasibility Study	2019	132
Tema Arterial	Tema Arterial Expressway	PPP	Preliminary Design Owners Engineer	2019	12
DRC/Zambia	Kasomeno-Mwenda Toll Road	PPP	Owners Engineer	2020	185



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Road Rehabilitation, Design & Supervision



Taking into account the economic restrictions regarding infrastructure development it is of vital importance to implement the most economic and cost effective road rehabilitation strategies. SNA has been involved in rehabilitation projects for many years and has developed effective repair strategies with regard to flexible as well as rigid pavement structures.

- **SNA uses the latest technology for pavement analysis and deterioration models in its road rehabilitation design.**
- **Years of experience enable SNA to carry out cost effective supervision of rehabilitation projects.**
- **High levels of head office and site supervision are maintained, irrespective of the size of the project.**
- **SNA focuses on training and practical knowledge transfer to site personnel regarding rehabilitation techniques.**
- **Proper resurfacing seal designs to fit prevailing conditions are regarded to be of utmost importance and are undertaken by senior staff members.**

The rehabilitation design and supervision sections are integral parts of SNA and all rehabilitation projects are managed to address all facets of road rehabilitation.

- ***Pavement surveys and analysis***
- ***Pavement repair strategies***
- ***Drainage repair and upgrading***
- ***Bridge repair and upgrading***
- ***Safety and capacity issues***
- ***Road side furniture repair and upgrading***
- ***Environmental issues***
- ***Value engineering***
- ***Cost estimates and budgets***
- ***Product performance guarantee system (PPGS) contracts***
- ***Specifications and contract documents***

Where required, SNA has the resources and equipment to undertake the following investigations and tasks:

- ***Material tests***
- ***DCP tests***
- ***Test pit investigation***

SNA uses the latest sophisticated computer software for pavement performance analysis.



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Bridge Structures



Since 1955 SNA has designed and supervised the construction of several hundred bridges and has gained experience and expertise in the design of all types of bridges.

State-of-the-art design techniques and up-to-date computer programs for both design and drafting enable SNA to offer professional design services in:

- ***Reinforced concrete design***
- ***Prestressed concrete design in pretensioned precast concrete and post-tensioned cast in-situ concrete***
- ***Composite bridge design in steel, precast and reinforced concrete***
- ***Structural steel bridges***
- ***Design of other road related structures, e.g. culverts, sign gantries and canals.***

In addition to designing new bridges, SNA has extensive experience in:

- ***Bridge management systems***
- ***Bridge inspections***
- ***Bridge rehabilitation and repairs***
- ***Bridge widening and upgrading***
- ***Bridge load assessment and testing***

Over 100 bridges have been rehabilitated on the Witbank to Maputo toll road as part of the Maputo Development Corridor for which SNA is the Consulting Engineer.



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Commercial & Industrial Structures



Since 1955, SNA has designed and supervised the construction of numerous commercial and industrial building projects. This has involved the use of both reinforced and prestressed concrete and structural steelwork. State-of-the-art design techniques and up- to-date computer programs for both design and drafting enable SNA to offer professional design services for:

- **Office developments**
- **Factory / warehouse developments**
- **Townhouse complexes / retirement villages**
- **Sports facilities / recreation halls**
- **Hospitals**

- **Schools**
- **Churches**
- **Aircraft hangers**
- **Industrial hard stands**
- **Cold rooms**
- **Water towers**

We also undertake:

- **Rehabilitation of existing structures to extend their safe, useful life.**
- **Strengthening of existing structures so that they can be used for purposes other than those for which they were originally intended.**



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Civil Infrastructure for the Mining Sector



Since its inception in 1955 SNA has been involved with the mining sector providing civil infrastructure for new mines, upgrading infrastructure of existing mines and relocating existing provincial infrastructure to facilitate open cast and underground strip mining. SNA has also carried out specialist sub-design appointments for several specialist mining consultants.

These projects include:

- Relocating existing provincial infrastructure (Road P90/1) for Kriel Coal mine and
- Relocating existing provincial infrastructure (Road 455) for Kleinkopje Colliery.
- Deviation of road 1682 for New Denmark Colliery.
- The construction of protection measures for a rail over mine haul road bridge for ATCOM coal mine.
- Access road to No. 16 Shaft Impala Platinum mine.
- Haul road for Richards Bay Minerals (RBM).
- Bridge over the Nhlabane River for haul road for RBM.
- New interchange ramps on National Route N2 for EXXARO sands (includes checking existing bridge for mine haul vehicles).
- Pre-feasibility study for the road infrastructure for transporting of coal to rail sidings for EXXARO.
- New access road to waterfall box cut for Aquarius Platinum.
- Palesa Mine access road and intersection upgrade.
- Wash bays for mine trucks at Kolomela Mine for Kumba.

Railway Engineering



Over the past decade SNA Civil and Structural Engineers has been involved in various Railway design projects for the State Rail Authority including the improvement and upgrading of 14 stations for the SA Rail Commuter Corporation and more recently from 2006 onwards SNA was proudly involved in Rail Design of a large portion of The Gautrain Rapid Rail Link Project in Gauteng.

SNA has the personnel with specialist Railway backgrounds whom previously worked for the State Railway Authority, and are thus in the position to offer services in this field.

SNA offers the following specialist services relating to Railway Engineering:

- ***Feasibility studies***
- ***Consultation with authorities and the public***
- ***Environmental impact studies***
- ***Geometric railway design***
- ***Marshalling yard designs***
- ***Private Siding Designs***

- ***Pavement (Formation) design***
- ***Materials investigation, utilisation and design***
- ***Stormwater drainage design***
- ***Bridges and other rail related structures design***
- ***Level crossing elimination designs***
- ***Project documentation and tender evaluation***
- ***Project management and site supervision.***

Through SNA's role as a leading designer on the Gautrain Rapid Rail Link Project and previous projects undertaken for the State, specialised skills have been developed in the design of Railway systems.

SNA has developed good relations with emerging consultants in South Africa and has entered into numerous joint venture partnerships with these companies and has also been involved with technical skills transfer in this regard.



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Pavement Management Systems



The effective management of a capital-intensive asset such as a road network is of utmost importance to any road owner whether within the government or the private sector.

SNA has many years of experience in pavement management systems and employs certified specialists who undertake the visual evaluations suitable for engineering assessment.

SNA considers the information database obtained on the road network to be the backbone of its pavement management system and follows new trends in this field in order to further refine its information database.

SNA not only offers a pavement management system but is also able to operate within or develop an integrated management system where a GIS forms the basis of the management system.

A pavement management system including the following items can be offered by experienced SNA technical staff:

- ***Compilation of road inventory (GIS if required)***
- ***Visual evaluations***
- ***Rehabilitation demand analysis***
- ***Deterioration models***
- ***Prioritisation***
- ***Optimisation***
- ***Long and short term budgeting***
- ***Implementation of rehabilitation design***
- ***Supervision***
- ***Updating the management system***
- ***Monitoring pavement performance***



Since its inception in 1955 SNA has been involved with the Design, Upgrading and Rehabilitation of International Airports.

Projects Include:

- Gateway International Airport, Polokwane: Design and Upgrading of Runways

- Hoedspruit Airport: Rehabilitation of Runways
- OR Thambo International Airport: Rehabilitation of Pavement and Buildings

Programme & Project Management



SNA was contracted by the South African Government's National Treasury and the Department of Sport to execute the overall Programme Management of the construction phase of all ten the 2010 FIFA World Cup Stadia in South Africa.

The Programme Management entails the following aspects:

- *The oversight of the procurement of Contractors for the construction of the stadia.*
- *To ensure that all ten stadia were delivered on time, within the quality requirements set out by FIFA and the South African Government, as well as to oversee the total cash flow process during the construction phase. The cash flow monitoring process included the strict monitoring of the Contractor's cash flow versus the Contractor's construction program and payment milestones. Any deviation that could be a risk was highlighted with immediate effect to the relevant Government Departments for action.*
- *The monitoring of the programme was linked to an extensive reporting process, both at a high level as well as detailed reporting. The*

results of this process were to identify risks, cash flow constraints, from both Government as well as the Contractor's side and to then introduce remedial steps for action to ensure that the risks were eliminated and the process put back on track again.

Public Transport Infrastructure Projects:

SNA were also contracted by National Treasury to execute the Programme Management for the **Public Transport Infrastructure Projects (PTIS)**, related to the 2010 FIFA World Cup. The PTIS was on national as well as local government level. The purpose of the programme management appointment was to evaluate the PTIS master plans of the Host Cities as well as the expected feasibility and expenditure linked to these projects. The PTIS Projects were monitored over a prescribed period and projects not in execution at the milestone dates were called off and funds re-allocated to the projects which performed well. This programme saved millions of rand for projects which were tied up or were not feasible or did not get off the ground.

The process described above was a full time process for the duration of the construction period.



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Civil Engineering Township Services



SNA has played a leading role in the planning, design and construction of townships in many towns and villages throughout South Africa. Through this involvement SNA has developed expert skills in the planning, design and construction of the following residential as well as industrial township services:

- **Arterial roads**
- **Bus routes**
- **Residential and industrial streets**
- **Stormwater drainage**
- **Bridges and culverts**
- **Wet services (Water and sewer reticulation)**

With more than thirty years' experience in this field SNA can provide town planners with valuable assistance in the technical and economic evaluation

of planning alternatives.

In addition to the design of new services SNA can also offer clients expert advice on the maintenance and upgrading of existing infrastructure. Particular fields of expertise include:

- **Upgrading of infrastructure in previously disadvantaged communities**
- **Flood repairs**
- **Pavement management systems**
- **Rehabilitation of roads and streets**
- **Funding applications (Business plans)**

SNA further has extensive experience in the application of labour intensive construction methods in the construction of new works as well as in the rehabilitation of existing infrastructure.



Community Development Services



Over the past decade SNA has been involved in development projects in previously disadvantaged communities in accordance with the latest government policies. Such programmes have included the following:

- **Structural Joint Ventures**
- **Community based projects**
- **Development of SMME contractors**
- **Labour intensive construction and task based payment system**
- **Training of participants**
 - **SAFCEC/CEITS Accredited courses**
 - **Contractor development courses**
 - **Adult basic education and training (ABET)**

➤ **Community education assistance**

- **Bursaries for university and technician students**
- **Sponsorships of pupils at leading secondary schools**

Project in excess of R100 million have been undertaken in previously disadvantaged communities. Contract documentation incorporates structured joint ventures in line with the Government's latest targeted procurement policies for the development of affirmable business enterprises. Provision has been made for the engagement of local communities in task work programmes, community based construction and SMME development in accordance with the national framework agreement.

SNA Laboratories

Materials Testing & Investigations



Introduction

SNALAB (Pretoria & Richards Bay) is a division of SNA Civil and Structural Engineers (Pty) Ltd but also operates commercially as a laboratory providing services in the field of Civil Engineering and construction Material Testing.

SNALAB has suitable equipment and staff for a number of site laboratories for road building and construction acceptance control and testing.

SNALAB Pretoria

SNALAB is currently member of National Laboratory Association of South Africa SNALAB Pretoria is ISO 17025 accredited since June 2007, accreditation number: T0345. **SNALAB Pretoria was the first and currently the only Laboratory in South Africa that is accredited for the new SANS 3001 Series Test Methods (December 2015).**

SNALAB Richards Bay

SNALAB Richards Bay is ISO 17025 accredited since June 2007, accreditation number: T0341.

Site Laboratories

Various site laboratories are in operation throughout South Africa. SNALAB Pretoria supplied laboratories for the following major construction projects over the last 10 years: GAUTRAIN, Majuba Rail, R21, R71, NTC3-N3, TRAC-N4, R81 and R571 to name few. Site laboratories implements and maintain technical requirements as per ISO 17025 and SNALAB Quality manual.

Services

- **Civil Surveys: Centre Line, Borrow Pit & Geotechnical Investigations**
- **Compaction Quality Control**
- **Construction Materials: Soils, Gravel &**



Laboratory Manager: H. Diederiks, Pr Tech (Cell: 083-462-6949)

PO Box 72727, Lynnwood Ridge, PRETORIA, 0040 - Address: 191 Vonkprop Road, Samcorpark, PRETORIA
Tel: +27 (0)12 751 9388 - E-Mail: diederiks.h@sna.co.za - www.sna.co.za

Aggregate Testing

- **Bituminous Binders & Modified Binders**
- **Bitumen Mixtures**
 - **Design**
 - **Quality Control**
- **Concrete**
 - **Design**
 - **Quality Control**
 - **Durability Testing**
- **Chemical Tests**
- **Geotechnical, Site Investigation, DCP Testing & Core Cutting**

Accreditations

Testing Laboratory Number: T0345

Type of Tests / Properties Measured, Range of Measurement	Standard Specifications, Equipment / Techniques Used
AGGREGATES	
Organic Impurities in Fine Aggregates	SANS 5832
Bulk density of coarse and fine aggregates	SANS 5845
Partial size analysis of aggregates by sieving	SANS 3001-AG1
Determination of the average least dimension of aggregates by direct measurement	SANS 3001-AG2
Determination of the flakiness index of coarse aggregates	SANS 3001-AG 4
ACV and 10% FACT values of coarse aggregates	SANS 3001-AG 10
Determination of rock durability using 10% FACT values after soaking in ethylene glycol	SANS 3001-AG 15

Type of Tests / Properties Measured, Range of Measurement	Standard Specifications, Equipment / Techniques Used
Determination of the bulk density, apparent density and water absorption of aggregate particles retained on the 5mm sieve for road materials	SANS 3001-AG 20
Determination of the bulk density, apparent density and water absorption of aggregate particles passing the 5mm sieve for road materials	SANS 3001-AG 21
Apparent Density of Crushed Stone Base	SANS 3001-AG 22
ASPHALT	
Making of asphalt briquettes for Marshall tests and other specialized tests	SANS 3001-AS1
Determination of Marshall stability, flow and quotient	SANS 3001-AS2
Determination of bulk density and void content of compacted asphalt	SANS 3001-AS10
Determination of the maximum void-less density of asphalt mixes and the quantity of binder absorbed by the aggregate	SANS 3001-AS11
Determination of the soluble binder content and particle size analysis of an asphalt mix	SANS 3001-AS20
BITUMEN	
Penetration of Bitumen Materials	ASTM D5
Ball Penetration Resilience	TG1-MB10
Bitumen Rubber Standard Test for Softening Point (Ring & Ball Apparatus)	ASTM D36
Determination of Compression Recovery	TG1-MB11
Determining the flow characteristic	TG1-MB12
Ball penetration test for the design of surfacing seals	SANS 3001-BT10



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Type of Tests / Properties Measured, Range of Measurement	Standard Specifications, Equipment / Techniques Used
Texture depth measurement for the design of surfacing seals	SANS 3001-BT11
CONCRETE	
Mixing fresh concrete in the laboratory	SANS 5861-1
Sampling of fresh mixed concrete	SANS 5861-2
Making and curing of test specimens	SANS 5861-3
The determination of the slump of freshly mixed concrete.	SANS 5862-1
Compressive strength of hardened concrete	SANS 5863
Drilling, Preparation and Testing Strength of Cores taken from Hardened Concrete	SANS 5865
SOILS & GRAVELS	
The determination of the in-place dry density and moisture content of soils and gravel's by nuclear methods .	TMH 1 Method A10(b)
Cement or lime content (EDTA) of stabilised materials	TMH 1 A 15(a)
The electronic determination of the PH value of soil suspension.	TMH 1 Method A20
The method for the determination of the conductivity of a saturated soil paste and water	TMH 1 Method A21T
Wet preparation and particle size analysis	SANS 3001-GR1
Dry preparation and dry particle size analysis	SANS 3001-GR2
Wet preparation of samples for plasticity index and hydrometers	SANS 3001-GR5
Determination of the one-point liquid limit, plastic limit, plasticity index and linear shrinkage	SANS 3001-GR10
Determination of moisture content by oven-drying	SANS 3001-GR20

Type of Tests / Properties Measured, Range of Measurement	Standard Specifications, Equipment / Techniques Used
Determination of the maximum dry density and optimum moisture content	SANS 3001-GR30
Determination of the maximum dry density and optimum moisture content of laboratory mixed cementitiously stabilised materials	SANS 3001-GR31
Determination of the California bearing ratio	SANS 3001-GR40
Preparation, compaction and curing of specimens of laboratory mixed cementitiously stabilised materials.	SANS 3001-GR50
Sampling, preparation, compaction and curing of freshly mixed field cementitiously stabilised materials including determination of maximum dry density and optimum moisture content	SANS 3001-GR51
Determine the unconfined compression strength of compacted and cured specimens of cementitiously stabilised materials	SANS 3001-GR53
Determination of the indirect tensile strength of compacted and cured specimens of cementitiously stabilised materials	SANS 3001-GR54
Determination of the initial stabilizer consumption of soils and gravels	SANS 3001-GR57
SAMPLING	
Sampling from Sampling Pit in Natural Gravel, Soil & Sand	TMH5 MA2
Sampling from Stockpiles	TMH5 MB1
Sampling of Treated Pavement Layers	TMH 5 MB 10
Sampling of Road Pavement Layers	TMH 5 MC 1
Sampling of Asphalt or Concrete from completed layer or structure	TMH5 MC2
Division of sample using the rifler	TMH5 MD1
Division of a Sample by Quartering	TMH5 MD2



CIVIL ENGINEERING LABORATORY

Laboratory Manager: H. Diederiks, Pr Tech (Cell: 083-462-6949)

PO Box 72727, Lynnwood Ridge, PRETORIA, 0040 - Address: 191 Vonkprop Road, Samcorpark, PRETORIA
Tel: +27 (0)12 751 9388 - E-Mail: diederiks.h@sna.co.za - www.sna.co.za

SNA Recent Project Experience

A full record of projects in the last 5 years is available on request.

Ad-Hoc Structural and Drainage Consulting Engineering and Supervision Services for the Northern Region

Client: SA National Roads Agency SOC Limited
Mr. A Agaienz & Mr Tony Seloana
Value: R103 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: July 2019-Current

Measuring of Road Signs - Retro-reflectivity on the N4 Toll Route

Client: Trans African Concessions (TRAC)
Ms. Carla Davis
Value: R0,581 Million
Service: Special Services - Structures
Date: 2019-Current

The Periodic Maintenance of TR03103, MR00295 & OP06046 – Montague

Client: Western Cape Government
Mr. Shafee Abrahams +27 21 483 2161
Value: R52 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2019-Current

Upgrading East Bound & Maintenance of West Bound of MDC Section 4 (D&E) Arnot Interchange to Wonderfontein N4-4 km38,000 - km47,53 & N4-5X km0,00 to km10,6 (20,13km)

Client: Trans African Concessions (TRAC)
Mr. W. Janse van Rensburg, +27 11 805 8788
Value: R180 Million
Service: Assessment and Design
Date: 2019-Current

Rehabilitation & Upgrading of Nelspruit Bypass: Mataffin to Crocodile Valley, N4-7X km 46,00 to N4-7X Km 62,949 (along N4-8 BP ±18,5km)

Client: Trans African Concessions (TRAC)
Mr. W. Janse van Rensburg, +27 11 805 8788
Value: R224 Million
Service: Assessment and Design
Date: 2019-Current

Design and Engineering Services: D1559 Nhlabane Road Upgrade

Client: Rio Tinto Management Services South Africa (Pty) Ltd
Value: R0,750 Million
Service: Detail Design
Date: 2019

Special Maintenance of R56, Section 4 from National Route N6 (km 0,0) to Dordrecht (km 35,3) and Section 5 from Dordrecht (km 0,0) to Indwe (km 36,7)

Client: SA National Roads Agency SOC Limited
Mr. Gcobani Socenywa
Value: R281 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2019-Current

Special Maintenance on National Route R390 Section 1 from Cradock (Km 0,00) to Hofmeyer (km 62,50)

Client: SA National Roads Agency SOC Limited
Mr. Z Mlangeni
Value: R145 Million
Service: Preliminary Design, Detail Design, Construction Monitoring
Date: 2018-Current

The Special Maintenance on National Route N2 from Ibika Section 17 (km 44,0) to Tetyana Section 18 (km 24,0)

Client: SA National Roads Agency SOC Limited
Mr. Danfred Adams
Value: R414 Million
Service: Concept Design, Preliminary Design, Detail Design, Construction Monitoring
Date: 2018-Current

Rehabilitation of N4-3 (from km 30,2 to km 41,76) and N4-4 (km 0,0 - km 6.6)

Client: Trans African Concessions (TRAC)
Mr. W. Janse van Rensburg, +27 11 805 8788
Value: R250 Million
Service: Preliminary Design, Detail Design, Procurement, Construction Monitoring
Date: 2018-Current

The Periodic Maintenance of MR344, MR337, DR1522 and DR1525 - Herbertsdale and Gouritzmond Area

Client: Western Cape Government
Mr. L. Mostert
Value: R60 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2018-Current

Planning, Design and Construction Monitoring for 2017/2018 & 2018/2019 - Traffic Lights

Client: Polokwane Municipality
Ms Kulani Malubane, +27 15 290 2241
Value: R8 Million
Service: Detail Design
Date: January 2018-August 2019

Pavement Investigation and Detailed Report on Pre-Mature Base/Asphalt Failures on National Route R35

Client: SA National Roads Agency SOC Limited / SFC Engineers
A Agaienz / S Semanya
Value: R0,600 Million
Service: Pavement Investigation
Date: Oct 2018 - Jan 2019

Proposed New Printing Facility and Warehouse for CCL at Lords View Industrial Estate: Civil and Structural Services

Client: Designindex Architecture and Design (Pty) Ltd
Mr. Johan van der Merwe
Value: R85 Million
Service: Preliminary Design, Detail Design, Tender Documentation, Construction Monitoring
Date: 2017-2019

Administration and Monitoring for the Improvement on National Route R67 Section 5 from Swart Kei River (km 15,4) to Queenstown (km 33,0)

Client: SA National Roads Agency SOC Limited
Lindelani Tsanwani, 041 398 3245
Value: R350 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2017-Current

Periodic Maintenance of National Route R730 between Section 1, Sand River Street Junction (km 12,0) and Section 3, R34 to Odendaalsrus Intersection (km 12,9)

Client: SA National Roads Agency SOC Limited
Mr. Ridhwaan Mahomed, 033 386 3365
Value: R150 Million
Service: Construction Monitoring
Date: 2016-Current

Administration and Monitoring for the upgrade of National Route R61 Section 6 from All Saints to Section 7 Baziya: Phase 2, Section 6 from km 68,5 to km 86,65

Client: SA National Roads Agency SOC Limited
Mr. Iqbal Hoosen, 041 - 398 3212
Value: R365 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2016-Current

The Rehabilitation of MR352 and MR355 near Wilderness

Client: Western Cape Government
Mr. S. Blyth (Contract Engineer), +27 21 483 2159
Value: R128 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2016-2019

Special Maintenance of National Route R58 Section 4 from Aliwal North (km 0) to Lady Grey (km 49,79) AND Periodic Maintenance of National Route R58 Section 5 from Lady Grey (km 0) to Barkley East (km 66,12) AND Special Maintenance for Slope Stability on National Route R58 Section 5 from Lady Grey (km 0) to Barkley East (km 66,12)

Client: SA National Roads Agency SOC Limited
Mr. Ferdinand van Staden, 041 398 3245
Value: R442 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2016-Current

The Periodic Maintenance (Reseal) of Trunk Road 88 Section 1 between De Rust and Uniondale

Client: Western Cape Government
Mr. S. Blyth (Contract Engineer), +27 21 483 2159
Value: R35 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2016-2019

Assessment, Detailed Design, Contract Documentation and Construction Monitoring for the Partial Reconstruction of National Road R511, Section 3 from Beestekraal (km 36) to NW/Limpopo Border (km 78)

Client: SA National Roads Agency SOC Limited
Mr. Percy Moloto, +27 12 426 6200
Value: R300 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2016-Current

Assessment, Detailed Design, Contract Documentation and Construction Monitoring for the Improvement of National Road R510 Sections 1 and 2 from NW/LP Border (km 72.0) to Bierspruit (km 6.4) (Total 27.2 km)

Client: SA National Roads Agency SOC Limited
Mr. Alan Agaienz, +27 12 426 6200
Value: R300 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2016-Current

Assessment, Detailed Design, Contract Documentation and Construction Monitoring for the Improvement of National Road R510 Sections 1 and 2 from NW/LP Border (km 72.0) to Bierspruit (km 6.4) (Total 27.2 km)

Client: SA National Roads Agency SOC Limited
Mr. Alan Agaienz, +27 12 426 6200
Value: R300 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2016-Current

Restoration of Selected Pavement Areas followed by Surfacing of National Road N17 Section 5 from km 85 to Oshoek (km 122.7)

Client: SA National Roads Agency SOC Limited
Mr. K. Schaffrath, +27 12 426 6200
Value: R140 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2015-Current

Construction Monitoring for the Resurfacing of National Road R511 Section 3 from North West Border (km 0.0) to Thabazimbi (km 55.60)

Client: SA National Roads Agency SOC Limited
S Kganyago, +27 12 426 6200
Value: R70 Million
Service: Construction Monitoring
Date: 2016-2019

Assessment, Detailed Design, Contract Documentation and Monitoring of the Repair and Reseal of National Road R503 Section 1 from Klerksdorp (km 0.00) to Hartebeesfontein (km 22.0)

Client: SA National Roads Agency SOC Limited
Ms. Tshidi Kgodumo, +27 12 426 6200
Value: R94 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2015-2019

Repair and Resurfacing of National Road R40 Section 7 from Mica to Phalaborwa

Client: SA National Roads Agency SOC Limited
Mr. R. Oerlemans, +27 12 426 6200
Value: R88 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2017-2019

N4 Toll Highway. Hectorspruit to Komatipoort Maputo Development Corridor (MDC) 15A (N4-8X)

Client: Trans African Concessions (TRAC)
Mr. W. Janse van Rensburg, +27 11 805 8788
Value: R300m
Service: Detail Design, Tender Documentation & Construction Monitoring
Date: 2016 - 2017

Road Safety Assessment and Improvements in the Muckleneuk Area

Client: Bombela Civils Joint Venture (Pty) Ltd.
Value: R6,4 Million
Service: Road Safety Assessment, Detail Design & Implementation of Safety Measures
Date: 2016-2019

Supervision of the Resurfacing of National Route R75 Freeway from Despatch (km 12,6) to Uitenhage (km 29,1) and National Route R336 from Kirkwood to R75 (15 km in length)

Client: SA National Roads Agency SOC Limited
Gcobani Socenywa, 041 398 3254
Value: R171 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2016-2018

The Rehabilitation of the N3 Toll Road:

Part 1: Between Van Reenen (km 0,0) and Blackspruit (Km 24,0) (Highway Section 12XB and 13X) (24 km)
Part 2: Between Blackspruit (km 24,0) and Harrismith South I/C (km 29,1) (Highway Section 14XA) (5,1 km)
Part 3: Pavement Maintenance (N3-6X Van Reenens Pass)

Client: N3 Toll Concessions (Pty) Ltd.
Mr. Douglas Judd, +27 87 285 6382
Value: R160 Million
Service: Detail Design, Tender Documentation & Construction Monitoring
Date: 2015-2017

Rehabilitation of the N3 Toll Road:

1. Between Blackspruit and 42nd Hill (13,6 km) and
2. Between 42nd Hill and Warden North Interchange (50 km)

Client: N3 Toll Concessions (Pty) Ltd.
Mr. Douglas Judd, +27 87 285 6382
Value: R376 Million
Service: Detail Design, Tender Documentation & Construction Monitoring
Date: 2014-2017

The Rehabilitation and Upgrading of the N4 Maputo Development Corridor (MDC): Section 6(E): N4-6X from km 23,0 to km 43,3 and N4-7X from km 0,0 to km 22,

Client: Trans African Concessions (TRAC)
Mr. W. Janse van Rensburg, +27 11 805 8788
Value: R 185m
Service: Detail Design, Tender Documentation & Construction Monitoring
Date: 2017-2018

Upgrading of Kroonstad Traffic Control Centre on National Routes 1, Section 17

Client: SA National Roads Agency SOC Limited
Ms. Salome Naicker, 033 392 8142
Value: R92 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2017-2019

Upgrading and/or Rehabilitation of N4 Maputo Development Corridor (MDC) Section 4(D) and 4(E) between Arnot and Wonderfontein

Client: Trans African Concessions (TRAC)
Mr. W. Janse van Rensburg, +27 11 805 8788
Value: R403 Million
Service: Detail Design, Tender Documentation & Construction Monitoring
Date: 2014-2018

Design of Permanent Access Road and Remedying of any Defects in the Work for the Booysendal South Central Complex Implementation Project

Client: DRA Mining (Pty) Ltd.
Mr. J. Oberholster
Value: R140 Million
Service: Feasibility Study, Detail Design & Construction Monitoring
Date: 2015-2019

Professional Services for Construction for urgent Repair Work on the M1 Double Decker Bridge

Client: Johannesburg Roads Agency (JRA)
Mr. Mpho Kau, + 27 11 298 5122
Value: R35 Million
Service: Preliminary Design, Detail Design & Construction Monitoring
Date: 2017

The Periodic Maintenance (Repair and Reseal) of National Route 1 Sections 8 and 9 between Nelspoort (km 72.5) and Biesiespoort (km 26.0)

Client: SA National Roads Agency SOC Limited
Ms. P. Theron, +27 21 957 6400
Value: R37 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2019

The Maintenance & Rehabilitation of the N4 Maputo Development Corridor (MDC), Section 1 and 2F (Bronkhorstspuit):

Part 1: Rehabilitation of Part of MDC Section 1 from km 0,0 (Spitskop) - km 14,8 (Highveld I/C) (N4-3)

Part 2: Maintenance of MDC Section 2F from km 46.0 (Wilge River I/C) - km 55,0 (Spitskop) (N4-2)

Part 3: Repair of Accident Damage: Bridge B2990/B371 (Klipleiland Bridge) on N4-2 km at 33,2

Client: Trans African Concessions (TRAC)
Mr. W. Janse van Rensburg, +27 11 805 8788
Value: R205 Million
Service: Detail Design, Tender Documentation & Construction Monitoring
Date: 2015-2019

Reseal of Section 9 from George Airport to George

Client: Western Cape Government, Transport & Public Works
Mr. L. Truter, +27 21 483 2120
Value: R47 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2015

Slope Stabilisation near Houw Hoek on National Route 2 Section 2 between km 36,0 and km 37,0 (WB)

Client: SA National Roads Agency SOC Limited
Mr. G. Fourie, +27 21 957 6400
Value: R6 Million
Service: Preliminary Design, Detail Design & Construction Monitoring
Date: 2015

N4 Maputo Development Corridor (MDC): Witbank to Maputo Toll Road - Section 9 Karino to Mara: Grade Separated I/C Karino between km 17,900 and km 22,300

Client: Trans African Concessions (TRAC)
Mr. W. Janse van Rensburg, +27 11 805 8788
Value: R 300m
Service: Detail Design, Tender Documentation & Construction Monitoring
Date: 2014-Current

Construction of a Dual Carriageway and Bridges from Mthatha (km 2.03) up to and including the Ngqeleni Interchange (km 5.0) on National Route R61 Section 8

Client: SA National Roads Agency SOC Limited
Mr. T. Ngozwana, +27 41 398 3200
Value: R569 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2013-2018

Resurfacing of National Route R63 Section 14 from Alice (km 0.0) to King Williams Town (km 58.5)

Client: SA National Roads Agency SOC Limited
Mr. Rudi Botha, +27 41 398 3236
Value: R100 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2014-Current

Construction of Schools in the Free State Province under the Accelerated Schools Infrastructure Delivery Initiative (ASIDI) Programme (5 Schools)

Client: DBSA and Department of Basic Education
Mr. Selvan Naidoo
Value: R56 Million
Service: Detail Planning, Procurement Support & Construction Monitoring
Date: 2015-Current

National Route 18 Section 1: The Construction of a Bridge and Associated Road Works across the Vaal River at Warrenton

Client: SA National Roads Agency SOC Limited
Mr. T. Massingue, +27 21 957 4600
Value: R82.6 Million
Service:

- Administration of service providers, including Environmental Impact Assessment, Geotechnical Report & Overhead Lighting
- Detail design of road works & review of Client designed new bridge
- Tender & contract documentation of project, Lighting Sub-Contractor & Geotechnical investigation
- Construction Monitoring

Date: 2012-2014

Improvement of National Route 2 Section 14 from km 5,05 to Keiskamma Pass (km 31,67)

Client: SA National Roads Agency SOC Limited
Mr. R. Lorio, +27 21 957 4600
Value: R332 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2011

Detailed Design for Capacity Improvements on National Route 3, Section 1 from Westville Viaduct (km 11.8) to Paradise Valley Interchange (km 17.54)

Client: SA National Roads Agency SOC Limited
Mr. G. Harrison, +27 33 392 8100
Value: R1740 Million
Service: Detail Assessment, Preliminary Design and Detail Design
Date: 2013-2018

Detailed Design for Capacity Improvements on National Route 2, Section 25 from Edwin Swales Interchange (km 11.80) to South of EB Cloete (km 16.00)

Client: SA National Roads Agency SOC Limited
Mr. G. Harrison, +27 33 392 8100
Value: R1410 Million
Service: Detail Assessment, Preliminary Design and Detail Design
Date: 2013-2018

Detailed Assessment and Design for Capacity Improvements to the EB Cloete Interchange (km 17,21) on National Route 2, Section 25

Client: SA National Roads Agency SOC Limited
Mr. G. Harrison, +27 33 392 8100
Value: R1965 Million
Service: Detailed Assessment, Preliminary Design & Detail Design
Date: 2010-2014

Safety Improvements on National Route R71 Section 1, at Moria (± 4,5 km)

Client: SA National Roads Agency SOC Limited
Mr. R. Oerlemans, +27 12 426 6200
Value: R140 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2014-2015

National Route R71 Moria : Myngenoegen and Nobody Circles & the R37 Intersection

Client: SA National Roads Agency SOC Limited
Mr. R. Oerlemans, +27 12 426 6200
Value: R57 Million
Service: Detail Design, Tender Documentation, Construction Monitoring
Date: 2014-2015

Reseal of National Route R71, Section 2 from Tzaneen (Km 0,00) to Gravelotte (km 55,20)

Client: SA National Roads Agency SOC Limited
Mr. R. Oerlemans, +27 12 426 6200
Value: R89,2 Million
Service: Assessment Report, Detail Design, Contract Documentation and Construction Monitoring
Date: 2010-2012

Reseal of National Route R71 Section 1 between Polokwane (km 6,00) to Boyne (km 39,545)

Client: SA National Roads Agency SOC Limited
Mr. R. Oerlemans, +27 12 426 6200
Value: R97,2 Million
Service: Assessment Report, Detail Design, Contract Documentation and Construction Monitoring
Date: 2010-2012

The Partial Reconstruction of National Route R71 Section 1 from Polokwane (km 39,0) to Tzaneen (km 88,0) (49 km)

Client: SA National Roads Agency SOC Limited
Mr. R. Oerlemans, +27 12 426 6200
Value: R362,0 Million
Service: Assessment Report, Detail Design, Tender Documentation, Construction Monitoring
Date: 2009-2013

Feasibility Study for Traffic & Toll Advisory Services to SANRAL – Project 58500 – Horizon 2020 (3 Toll Roads: N2, N10 & R37)

Client: SA National Roads Agency SOC Limited
Mr. Ron Harmse, +27 12 426 6200
Value: R Million
Service: Feasibility Study for Proposed SANRAL Toll Roads
Date: 2010-2011

Bid Design for the N1 / N2 Winelands Toll Highway

Client: The N1 N2 Overberg Construction Joint Venture
Value: R 8 000 million
Service: Bid phase - Technical Proposals; design of the Initial Works – Preliminary design
Date: 2010-2011

Preliminary Design for Bid Phase. Public Private Partnership for the Design, Construction, Financing, Operation and Maintenance of a Road Decongestion Programme for the Road Development Authority, Government of Mauritius

Client: Group 5 / Strabag
Value: R20 000 million (Value based in 2017)
Service: Bid phase - Preliminary design
Date: 2010 – 2010

Rehabilitation and Reseal of National Route R81 Section 1 from Munnik to Giyani

Client: SA National Roads Agency SOC Limited
Mr. R. Oerlemans, +27 12 426 6200
Value: R140,1 Million
Service: Assessment Report, Detail Design, Contract Documentation & Construction Monitoring
Date: 2008-2012

Design of the Ashburton Interchange upgrade (km 1.80) and the Bellevue Interchange (km 4.50) on National Route 3 Section 3

Client: SA National Roads Agency SOC Limited
Mr. I. Ramklown, +27 33 392 8100
Value: R3,95 Million (design only)
Service: Preliminary Design only
Date: 2012 –2013

Periodic Maintenance of National Route 3 Section 1 from Candella Road (km 8.500) to Paradise Valley (km 17.000)

Client: SA National Roads Agency SOC Limited
Mr. R. Dookie, +27 33 392 8100
Value: R200 Million
Service: Preliminary Design, Detail Design & Construction Monitoring
Date: 2012

New Access Road to Waterfall Boxcut from Aquarius Platinum Mine

Client: DRA Mining (Pty) Ltd
Mr. J. Oberholster
Value: R120 Million
Service: Preliminary and Detail Design
Date: 2011

GFIP: National Route 1, Section 20 from Misgund I/C (km 6,4) to Golden Highway (km 9,2)

Client: SA National Roads Agency SOC Limited
Mr. R. Padavattan, +27 12 426 6200
Value: R155 Million
Service: Detail Design, Tender Documentation & Construction Monitoring
Date: 2011-2012

The Gauteng Freeway Improvement Project (GFIP) National Route N1-20 from Golden Highway to 14th Avenue and Route N12-18 from Diepkloof to Uncle Charlie's

Client: SA National Roads Agency SOC Limited
Mr. R. Padavattan, +27 12 426 6200
Value: R1400 Million
Service: Preliminary Design, Detail Design & Construction Monitoring
Date: 2008-2010

Gautrain Rapid Rail Link: Water Management Corridor: Upgrading Wet Services in the Dolomite Areas to ensure Dolomite Compliancy

Client: Bombela Civils Joint Venture (Pty) Ltd.
Mr. P. Bredahl
Value: R105 Million
Service: Risk Evaluation, Detail Design & Construction Monitoring
Date: 2012-2015

Gautrain Rapid Rail Link: Package DD5A: Depots and Package DD5B: Civil Works

Client: Bombela Civils Joint Venture (Pty) Ltd.
Mr. Christophe Hirsinger, +27 11 253 2034
Value: DD5A: R1100 Million
DD5B: R1200 Million
Service: Preliminary & Detail Design
Date: 2006-2010

Programme Management of 10 Stadiums for 2010 FIFA Soccer World Cup

Client: Department of Sport and Recreation / National Treasury
Mr Hazy Sibanyoni & Mr Nyiko Gudhluza, +27 12 304 5215
Value: R16,8 Billion
Service: Programme Management
Date: 2006-2010

The Improvement of National Route R300 Section 1 from Swartklip Interchange (km 14,0) to Stellenberg Interchange (km 31,0)

Client: SA National Roads Agency SOC Limited
Mr. D. Erasmus, +27 21 957 4606
Value: R600 Million
Service: Preliminary Design, Detailed Design of Roads and Bridges, Contract Documentation & Construction Monitoring
Date: 2007-2010

The Construction of the N4 Nelspruit Northern Ring Road

Client: Trans African Concessions (TRAC)
Mr. W. Janse van Rensburg, +27 11 805 8788
Value: Section 1: R360 Million
Section 2: R200 Million
Section 3: R148 Million
Service: Detail Design, Contract Documentation and Construction Monitoring
Date: 2008-2010

NRA R.040-020-2006/2: Reconstruction of National Route R40 Section 2 from Brinkspruit (km 5.1) to Hilltop (km 13.94)

Client: SA National Roads Agency SOC Limited
Mr. Alex van Niekerk, +27 12 426 6200
Value: R80 Million
Service: Detail design, Contract Documentation & Construction Monitoring
Date: 2007-2008

NRA R.040-020-2006/1: Reconstruction of National Route R40 Section 2 from Hilltop (km 13.94) to Barberton (km 39.32)

Client: SA National Roads Agency SOC Limited
Mr. Alex van Niekerk, +27 12 426 6200
Value: R300 Million
Service: Detail design, Contract Documentation and Construction Monitoring
Date: 2007-2009

Africa Projects



Zambia / DRC

Kasemeno - Mwenda Toll Road (KMTR) - Owners Engineer to GED Africa

Client: GED Africa Ltd
Value: 550 Million USD
Service: Preliminary Design Review
Date: 2020

Mozambique

The Rehabilitation and upgrading of MDC16, EN4 Section 1: km 0,0 to km 39,79, from Reesano Garçda Border Post to Moamba

Client: Trans African Concessions (TRAC)
Mr. W. Janse van Rensburg, +27 11 805 8788
Value: R335 Million
Service: Assessment, Prelim Design, Detail Design
Date: 2020-2021

Ghana

Owners Engineer: Tema Arterial Roads Project

Client: A P Moller Capital
Mr. Pieter Egbers
Value: 0,5 Million USD
Service: Preliminary Design
Date: 2019

Guinea

Novatel, Bel Air & Kankan Hotel

Client: SNA Africa SAS - Guinea
Value: 150 Million USD
Service: Detail Design
Date: 2019-Current

Guinea

Toll Feasibility Study: N1 Toll Road: Conakry to Kindia (132 km)

Client: Department of Public Works
Value: 1,5 Million USD
Service: Feasibility Study
Date: 2019-Current

Guinea

Upgrading and Geometric Improvement of N7 between Mandiana and Mali Border (56 km)

Client: Guiter SA Construction
Value: 84 Million USD
Service: Detail Design
Date: 2019-Current

Guinea

Upgrading of existing gravel road to surfaced road between Tintioule and Oumale

Client: Guiter SA Construction
Value: R10 Million
Service: Detail Design
Date: 2019-Current

Guinea

Upgrading and Geometric Improvement of N1 between Kankan and Kissigoudou (185 km)

Client: Guiter SA Construction
Value: 278 Million USD
Service: Detail Design
Date: 2019-Current

Guinea

Upgrading and Geometric Improvement of N1 between Kankan and Kerouane (120 km)

Client: Guiter SA Construction
Value: 0,15 Million USD
Service: Survey
Date: 2019

Kenya

Detail Design of the Lamu-Garissa-Isiolo Toll Road in Kenya

Client: Raubex Construction & WBHO Joint Venture
Jasper van der Bijl
Value: 800 Million USD
Service: Review, Preliminary Design, Detail Design and Construction Monitoring
Date: 2018-Current

Mozambique

Traffic Capacity Upgrade Investigations of MDC Sections 19, 20 and Harbour Road between Matola and 16th June Circle (EN4 km 40,85 to 51,82)

Client: Trans African Concessions (TRAC)
Mr. W. Janse van Rensburg, +27 11 805 8788
Value: 21,5 Million USD
Service: Feasibility, Preliminary Design & Detail Design
Date: 2013-2019

Namibia

Widening of 3 River Bridges on the MR76 Bridge between Khoriscas and Kamanjab

Client: Tulipamwe
Lindsay Kriel
Value: 2,5 Million USD
Service: Detail Design, Calculations & Drawings
Date: 2018

Kenya

East Africa Trade and Transport Facilitation Project (EATTFP) Consultancy Services for Engineering Design and Construction Supervision of the Mariakani-Athi River Axle Load Control Stations

Client: Kenya National Highways Authority (KenHA), Nairobi, Kenya
Eng. P. Omondi
Value: 12,5 Million USD
Service: Detail Design, Construction Monitoring
Date: 2015-2018

Kenya

Consulting Services for Design Review and Construction Supervision of Three (3) Interchanges along A104 at Nyahururu Turnoff, Njoro Turnoff and Mau Summit

Client: Kenya National Highways Authority (KenHA) , Nairobi, Kenya
Eng. P. Omondi, 00 254 722 444
Value: 28 Million USD
Service: Design Review, Construction Monitoring
Date: 2015-2018

Zambia

Consulting Services for the Feasibility Study and Identification of Locations for the Construction of Fixed Electronic Weigh Bridges on the Core Road Network in Zambia

Client: Zambia Roads Development Agency (RDA)
Mr. D. Tutu,
Value: 0,6 Million USD
Service: Detail Design
Date: 2015-Current

Zambia

Upgrading of Road 56 from Gravel to Surfaced Standards: Chinsali – Safwa

Client: Raubex
Mr. J. van der Bijl, +27 12 648 9400
Value: 71 Million USD
Service: Detail Design
Date: 2017

Zambia

Road 56 Mfuwe-Nabwalya Zambia: Single Carriageway Surfaced Road

Client: Raubex
Mr. J. van der Bijl, +27 12 648 9400
Value: 86 Million USD
Service: Detail Design
Date: 2017

Mozambique

NCALA Railway Corridor Project Mozambique

Client: Aurecon
Mr. L. van Eeden
Value: 14,5 Million USD
Service: Project Management & Storm Water Drainage Design Reviews
Date: 2012

Namibia

Kranzberg to Tsumeb Railway Line: Inspection of Existing Rail Bridges - Namibian Railways

Client: Windhoek Consulting Engineers
Mr. V. Rieger
Value: 0,1 Million USD
Service: Bridge Inspections
Date: 2011-2012

Joint Ventures

The company has successfully participated in joint venture arrangements over the last 20 years on major projects.

The major projects referred to are as follows:

- Maputo Development Corridor (SNA lead consultant)
- Gautrain (SNA Lead Consultant with other engineering disciplines)
- Gauteng Freeway Improvement Project (GFIP) (Joint Venture with other Engineering Disciplines)
- Road Designs on the N1 and N2 (SNA as lead consultant – Bid Phase)
- Mauritius Toll Road Decongestion Programme (JV with other Engineering disciplines – Bid Phase)

SNA has an established relationship with engineering companies operating in most of the other engineering disciplines (electrical, mechanical, traffic & transportation, etc.) for use if and when required.

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