

BUILT ENVIRONMENT CONSULTANTS

21
YEARS IN
CONSULTING



MAP AFRICA Consulting Engineers was established in June 2001 and collectively boasts over 100 + years of experience between its core management staff.

Our team has extensive expertise to deliver projects in the fields of Civil Infrastructure, Structural, Water and Sanitation, Roads & Stormwater, Housing, Traffic & Transportation Engineering, Project Management, and Energy.

21
YEARS IN
CONSULTING



YEAR ESTABLISHED



PROJECTS COMPLETED



CONTRACTORS APPOINTED



NUMBER OF SITE OFFICES

OUR WAY OF WORKING

Our responsibility as professionals will be to provide sound advice to our client and the consultant team to ensure that the project to be delivered complies with local and statutory rules and regulations and to also ensure that the project can be executed within the desired time frames and budgetary constraints.

In addition, we acknowledge the fact that projects generally have to be executed with minimum disruption to the operation of the ongoing processes and it is our intention to pay particular attention to this aspect during the design and execution phases of any project that we are involved with.



WE INTEND ACHIEVING OUR OBJECTIVES BY :

- Basing our designs on 'sound engineering principles'.
- Introducing 'innovative thinking, sound engineering and contractual and compliance principals' to arrive at solutions which prove challenging.
- Using new available technology to assist with planning and execution of tasks.
- Ensuring that specialist resources with the correct skills and competency are assigned to the relevant tasks.
- Value add experience gained on similar projects so as to provide the best advice and services.
- Implementing our 'Quality Management System' to all aspects of our tasks.

OUR EXPERTS



**PRIBAN
NARAINSAMY**

Professional
Engineer



**MARC
NAIR**

Professional
Technologist



**SIDESH
SIRPUTH**

Professional
Technologist



**BYRON
XAVIER RAMAN**

Professional
Engineer

MAIN MEMBERS

**PRIBAN
NARAINSAMY**

PR. ENG. ECSA, MSAICE

**Professional Engineer,
Director Specialisation in Civil &
Structural Engineering.**

Priban is the nominated Office Principle with 30 years of industry experience and currently represents MAP AFRICA's technical team on multiple projects.

Major Skills & Expertise

- Civil Design
- Roads and Stormwater
- Traffic and Transportation
- Water and Sanitation
- Project Management

Priban's portfolio extends to Business Development and IT.

MARC NAIR

PR. TECH. ENG. ECSA,
MSAICE, MIPET, MSAISC

**Professional Technologist,
Director Specialisation in
Structural Engineering.**

Marc has extensive industry experience of over 32 years and is currently the Principal Engineer: Structures and represents MAP AFRICA's technical team on multiple projects.

Major Skills & Expertise

- Structural Design
- Civil Design
- Quality Control
- Project Management

Marc's portfolio extends to ISO and Quality Assurance & Accreditation.

**SIDESH
SIRPUTH**

PR. TECH. ENG. ECSA,
MSAICE, MIPET, MSAISC

Professional Technologist, Director.

Sidesh has over 20 years of industry experience and is currently the Principal Engineer: Civil Engineering and Transportation and represents MAP AFRICA's technical team on multiple projects.

Major Skills & Expertise

- Roads and Stormwater
- Civil Design
- Traffic and Transportation

Sidesh's portfolio extends to Procurement, & Administrative Compliance.

**BYRON XAVIER
RAMAN**

PR. ENG. ECSA, MSAICE

**Professional Engineer,
Director Specialisation in Civil &
Structural Engineering and
Project Management.**

Byron has extensive experience of over 12 years and is currently the Principal Engineer: Infrastructure and represents MAP AFRICA's technical team on multiple projects.

Major Skills & Expertise

- Structural Design
- Civil Design
- Energy Expertise
- Project Management
- Specialist Services

Byron's portfolio extends to Software, Human Resources and Marketing.

**5
MEMBERS**

**MIDDLE
MANAGEMENT**

**5
MEMBERS**

ADMINISTRATION

**25
MEMBERS**

EXPERTS

CIVIL
STRUCTURAL
TRAFFIC & TRANSPORTATION
WATER & SANITATION
PROJECT MANAGEMENT
SPECIALISTS

**SITE AND
CONSTRUCTION
STAFF**

**SPECIALIST
SERVICES**



**We shape our buildings,
thereafter they shape us.
– Winston Churchill**



OUR SERVICES



HOUSING

Development of hostels, community residential units, low-cost housing and housing monitoring support.



ROADS & STORMWATER

The undertaking of local, provincial, and national roads, sidewalks, bus/ taxi lay byes, carparks, pedestrian and vehicular/ rail bridges and culverts.



STRUCTURAL

Design of major concrete works, multi-storey buildings, railway stations, institutional buildings, assessment and monitoring of structural repairs. This includes building, industrial and civil projects.



TRAFFIC & TRANSPORT

Undertaking traffic and parking impact assessments, public transport and pedestrian plans, and transportation studies. This includes highways, railways, pavements, and traffic and transportation projects.



WATER & SANITATION

Design of new reticulation, reservoirs, pump stations, technical support and non-revenue water management. Including water schemes, municipal systems, water purification works, and water resource development projects such as pipelines, pump stations, and catchment management studies.



PROJECT MANAGEMENT

The management of the planning and physical construction process within the built environment from conception to completion, including management of related professional services and specialists.



ENERGY

Professional services such as civil and structural design and design review consultants on wind, solar photovoltaic, solar power stations and biomass waste-to-energy renewable energy and clean water processes and technologies.

FLAGSHIP PROJECTS

New Durban High Court



CLIENT: DEPARTMENT OF PUBLIC WORKS (NATIONAL) – DEPARTMENT OF JUSTICE

Project Description: This ‘Mega Project’ is made up of 4 major components, viz. construction of an off-site decanting facility to accommodate High Court operations during the 4½ year construction period, construction of the new four storey High Court building, construction of the new nine storey carpark & administration building and restoration of the existing High Court building. The latter three construction activities taking place on a single, tight site.

Estimated Construction Value: R850 Million.

Professional Services Rendered: Structural Engineering, Civil/ Infrastructure Engineering,

Wet Services Engineering, Resident Engineering.

Engineering Feats and Challenges: Excavation was required below the water table (@ 2.50m above MSL) in order to construct the foundations. This took careful planning and monitoring in terms of the de-watering exercise so as not to disturb the foundations of the existing high-rise buildings surrounding the site.

Major internal upgrades were required at the Existing High Court building (heritage structure constructed in 1910), which involved careful planning in terms of creating openings for services in load-bearing elements and demolition of support walls.

The site is located in the Durban CBD, which posed a challenge in terms of the tight site constraints and logistics in terms of material supply and handling. Erection of the 2 tower cranes took careful planning, including shutting down of roads leading to the site to accommodate the mobile cranes, which lifted the tower cranes into position.

Timeous issue of design construction information took a dedicated team of 12 MAP AFRICA resources, (including professional engineers, technologists, technicians, draughtsmen, and site staff) working full time over the construction period to ensure no delays to the contractor.



FLAGSHIP PROJECTS

Jika Joe CRU Housing Project



CLIENT: GROUNDWORK – MSUNDUZI MUNICIPALITY

Project Description: The project entails the construction of approximately twenty-seven (27) new multiple storey Community Residential Units (CRU) within the Jika Joe Residential Area, Pietermaritzburg CBD and along the N3 route. This development will provide 1104 units and house approximately 5520 people.

Estimated Construction Value: R500 Million.

Professional Services Rendered: Structural Engineering & Civil/ Infrastructure Engineering.

Engineering Feats and Challenges:

- CRU rental policy in place that will assist towards providing the higher level of service for the beneficiaries of the development.
- Innovative flood plain mitigation.
- Severely poor geotechnical conditions with innovative and cost effective ground interventions.

University of Zululand



CLIENT: UNIVERSITY OF ZULULAND – DEPARTMENT OF HIGHER EDUCATION

Project Description: Multiple Infrastructure Projects. Planning and implementation.

Estimated Construction Value: R900 Million.

Professional Services Rendered: Master Civil Infrastructure Planning, Civil, Structural, Project Management, Traffic & Transportation, Energy & Specialist Services.

Engineering Feats and Challenges:

- Innovative designs and implementation due to constrained sites and aging infrastructure.
- Size and quantity of developments assigned to different teams and coordination thereof.
- Strict and tight time frames to be met in order to meet university enrollment demands.
- New state of the art infrastructure facilities.

FLAGSHIP PROJECTS

MSSL Global RSA Module



CLIENT: MOTHERSONS GROUP

Engineering Ltd – India

Project Description: New factory.

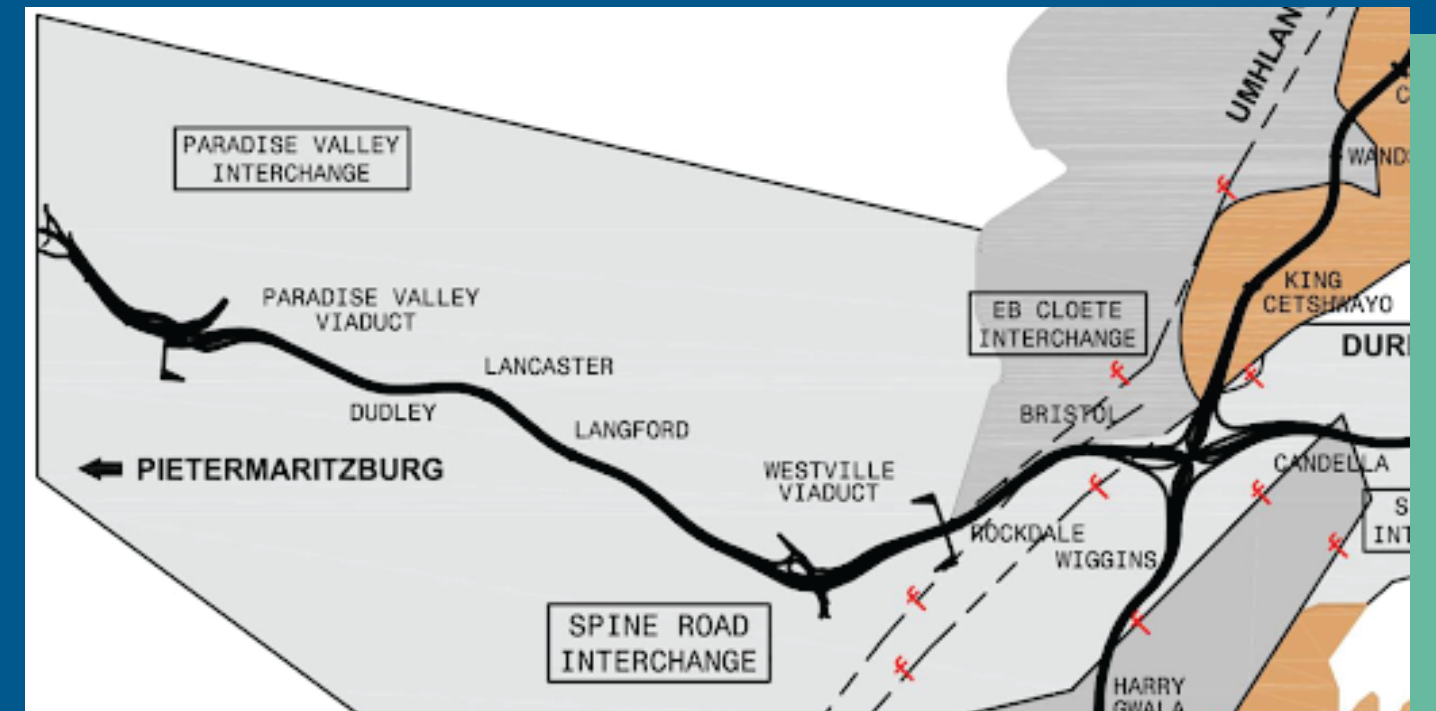
Estimated Construction Value: R140 Million.

Professional Services Rendered: Project Management, Structural Engineering, Civil Engineering, Services and Construction Monitoring.

Engineering Feats and Challenges:

- Severely poor geotechnical conditions with major ground improvements.
- Large complex lattice span structures.
- Extremely high crane loads.

National Road Upgrade



CLIENT: SANRAL

Project Description: Capacity Improvements on National Route 3, Section I, From Westville Viaduct (Km 11.80) To Paradise Valley Interchange (Km 17.54).

Estimated Construction Value: R1.7 Billion.

Professional Services Rendered: Civil, Structural and Traffic & Transportation Engineering and other Specialist Services. Design Review and Construction Monitoring.

Engineering Feats and Challenges:

- Innovative designs and implementation due to constrained sites and aging infrastructure.
- Size and quantity of developments assigned to different teams and coordination thereof.
- Strict and tight time frames to be met in order to meet University enrollment demands.
- New state of the art infrastructure facilities.

The image displays a collection of 30 logos for South African government departments and municipalities, organized in a 5x6 grid. Each logo typically features the national coat of arms, a name, and a brief description.

- Row 1:**
 - public works**: Department of Public Works, REPUBLIC OF SOUTH AFRICA
 - KWAZULU-NATAL PROVINCE**: ARTS AND CULTURE, REPUBLIC OF SOUTH AFRICA
 - CSIR**: not future through science
- Row 2:**
 - KwaZulu-Natal PROVINCIAL TREASURY**
 - Province of the NORTHERN CAPE**: Department of Public Works
 - ARMSCOR**: Arms and Ammunition Corporation of South Africa, 5010 501
- Row 3:**
 - treasury**: Department of Treasury, PROVINCE OF KWAZULU-NATAL
 - arts and culture**: Department of Arts and Culture, PROVINCE OF KWAZULU-NATAL
 - COEGA**: COASTAL ECONOMIC DEVELOPMENT AND INFRASTRUCTURE AUTHORITY
- Row 4:**
 - transport**: Department of Transport, REPUBLIC OF SOUTH AFRICA
 - Province of the EASTERN CAPE**: EDUCATION
 - EWC**: Eastern Cape Water Council, Transforming Water
- Row 5:**
 - basic education**: Department of Basic Education, REPUBLIC OF SOUTH AFRICA
 - social development**: Department of Social Development, REPUBLIC OF SOUTH AFRICA
 - idc**: IDC
- Row 6:**
 - cooperative governance & traditional affairs**: Department of Cooperative Governance and Traditional Affairs, REPUBLIC OF SOUTH AFRICA
 - Umkhanda wakwa NONGOMA**: Local Municipality
 - Mkhambathini Municipality**: for the Community
- Row 7:**
 - LIMPOPO**: REGIONAL ECONOMIC DEVELOPMENT AUTHORITY
 - education**: Department of Education, REPUBLIC OF SOUTH AFRICA
 - KWADUKUZA**: MUNICIPALITY
- Row 8:**
 - business enterprises**: Department of Business Enterprises, REPUBLIC OF SOUTH AFRICA
 - environmental affairs**: Department of Environmental Affairs, REPUBLIC OF SOUTH AFRICA
 - prasa**: PRASA
- Row 9:**
 - arts and culture**: Department of Arts and Culture, REPUBLIC OF SOUTH AFRICA
 - health**: Department of Health, REPUBLIC OF SOUTH AFRICA
 - nelson mandela bay MUNICIPALITY**
- Row 10:**
 - rural development & land reform**: Department of Rural Development and Land Reform, REPUBLIC OF SOUTH AFRICA
 - human settlements**: Department of Human Settlements, PROVINCE OF KWAZULU-NATAL
 - SARS**: South African Revenue Service
- Row 11:**
 - edtea**: Eastern Cape Development, Education and Tourism Authority, PROVINCE OF KWAZULU-NATAL
 - TRANSNET**
 - NATIONAL HOME BUILDERS**: **NHBC** REGISTRATION COUNCIL
- Row 12:**
 - public works**: Department of Public Works, PROVINCE OF KWAZULU-NATAL
 - cogta**: Department of Cooperative Governance and Traditional Affairs, PROVINCE OF KWAZULU-NATAL
 - Lembe Local Municipality**
- Row 13:**
 - agriculture & rural development**: Department of Agriculture and Rural Development, PROVINCE OF KWAZULU-NATAL
 - ADA**: AGRICULTURAL DEVELOPMENT AND AGRICULTURE
 - SANRAL**: SOUTH AFRICAN NATIONAL ROADWAYS
- Row 14:**
 - public works**: Department of Public Works, REPUBLIC OF SOUTH AFRICA
 - Eskom**
 - EZEMVELO**: NATIONAL PARKS



**Strive for perfection in everything you do.
Take the best that exists and make it better.
When it does not exist, design it.
- Sir Henry Royce**



Scientists investigate that which
already is; Engineers create that
which has never been.

- Albert Einstein



MAP AFRICA

CONSULTING

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