

Sands Civil Services

Company Profile

Sands Civil Services is a company offering specialist materials testing, geotechnical, inspection & corrosion consultancy services operating from offices and laboratories located in Gaborone International Commerce Park. Established in 1996, we have extensive experience of specialist services for the road building and construction industries. In addition we have a construction division specialising in the supply & erection of pre-engineered and mobile buildings and in general building and remedial works. We are also able to offer statutory and engineering inspection services and insured loss assessment.

The attached profiles give an overview of the business:

- ***Construction Materials Testing***
- ***Construction, Remedials & Refurbishment***
- ***Geotechnical Consultancy***
- ***Insured Loss Investigation***
 - ***Light Steel Frame Buildings***
 - ***Engineering & Statutory Inspection***
 - ***Materials & Corrosion Consultancy***
 - ***Laboratory, Testing and Inspection Equipment Sales***



geotechnical surveys modular buildings inspection & testing insured loss assessment construction

If you have any queries, need to know more about our services or need a quotation please contact us:

Sands Civil Services

***Private Bag 00379
Gaborone
Botswana***

***Tel: 267 3909864 / 7
Fax: 267 3909 881
info@sandscivils.com
www.sandscivils.com***

***Soil & Materials Testing
Foundation Investigation
Insurance Loss Adjusters***

***Jack Sands – 72111072 jsands@sandscivils.com
Patrick O Kgati – 75008722 pkgati@sandscivils.com***

***Pre-fabricated Buildings
Building Contractors***

***Statutory & Engineering Inspection
Laboratory Equipment Sales***

John Stonehill - 72767296

jstonehill@sandscivils.com

Sands Civil Services

Geotechnical Investigation & Testing



Specialist testing, location and investigation of materials for road building and construction:

- *Location of gravels for construction*
- *Gravel & aggregate testing*
- *Concrete & cement testing*
- *QC of materials during construction*
- *Site investigations for building and structures*
- *Road centerline and pipeline materials investigation*
- *Complex site & foundation investigation*
- *Design of special foundations for problem areas*
- *Earthwork design*
- *Railway geotechnics**
- *Caisson design**
- *Soil & rock slope stability**
- *Mine engineering, rock mechanics & undermined land**
- *Embankment & tailings dam engineering**
- *Dynamic consolidation**
- *Pre-wetting**
- *Waste disposal**

** In conjunction with Golder & Associates*

Some recent investigations:

Centreline & Gravel Surveys: Gaborone Roads Upgrade, Good Hope Infrastructure, Phakalane III & IV, Xakanaxa Air Strip, Kweneng Land Fill, Selebi Phikwe Infrastructure.

Pipeline Soil Surveys: NE District, Omawaweneo, Hukuntsi, Tshane, Lehutu Rural Village water supply, Moshupa/Manayana, Ramotswa Booster Pump Station, Damtshaa Mine Supply.

Foundation Investigations: National Museum Extension, Gaborone Coal Depot, Kgale Earth Station, STD Training Centre, Shoprite-Checkers Lobatse, Phakalane Golf Estate Clubhouse, Government Housing – Kasane, Francistown, Ghanzi, Tsabong, Total Garage Kang, BPC Offices Francistown, RADS Hostel Kweneng District, Bedia Factory Shells Gaborone.

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Construction



Construction and building repairs, light steel frame buildings supply & erection:

- ***Construction of:***
 - ▣ ***Houses***
 - ▣ ***Warehouses***
 - ▣ ***Factories***
 - ▣ ***Offices***
- ***Building repairs, refurbishment and modifications***
- ***Prefabricated buildings***
- ***Underpinning and foundation repair***
- ***Crack repair***

Some recent projects:

▣ ***Commercial:***

Volvo - Workshop & Office, A R Investments – Warehouse Gaborone West

▣ ***House building:***

WGM House Phakalane, Private House Phakalane Golf Estate, Private House Phakalane, Private House Ruretse, Housing Estate African Copper Mosetse

▣ ***Remedial & Refurbishment Work:***

Refurbishment Water Utilities 'On Site Chlorination Plant', Underpinning Plot 13172 Broadhurst, Underpinning Metsef Trade Centre, Refurbishment Gaborone Squash Club, Bush House Mokolodi Game Park

▣ ***Prefabricated Buildings:***

Ministry of Health: Ghantsi, Kazungula, Molepolole, Serowe.

Fraser International, Botswana Family Welfare Centre, ACHAP Resource Centres Francistown

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Pre-engineered Modular Buildings



Pre-engineered modular buildings:

- ***Offices***
- ***Accommodation Blocks***
- ***Ablutions***
- ***Clinics***
- ***Site Offices & Labs***
- ***Temporary Storage***
- ***Mine & Construction Camps***

A modular building is a versatile alternative to traditional site-constructed facilities. Modular or pre-engineered buildings can be used for many purposes, from school classrooms, garages, offices, temporary storage building, and clinics just to name a few.

Our pre-engineered buildings have a steel base and support framework with built in panels of sandwich construction clad with cement board.

Modular buildings provide flexibility and other advantages over site-construction, such as speed of occupancy, controlled quality, ease of expansion and relocation. The most significant advantage of modular buildings is the time saving and ease of transport and construction particularly in rural environments and fast track and temporary developments such as mines and construction camps.

The foundation is often a concern when establishing a modular building on site. Our system casts the steel base frame into a concrete raft foundation.

Some of our projects & clients:

*Boipelego –Etsa, Kachikau, Kasane
Ministry of Health - Molepolole, Serowe
ACHAP - Resource Centre, Francistown
BDF – Offices, SSKB Mogoditshane
Dept of Wildlife – Residences, Okavango
Jamal Trading – Residence, Gaborone
Scottish Livingstone Hospital - Wards
Legae Academy - Classrooms*

*Botswana Family Welfare Centre
BCL - Mine Accommodation
Fraser International - Offices
Private House – Notwane
Debswana – Offices, Orapa & Maun
Manica Freight – Offices, Kasane
Geoflux – Offices Orapa & Gaborone*

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Engineering & Statutory Inspections



To Ensure:

- *Fitness for Service*
- *Compliance With Legislation*
- *Root Cause Analysis of Defective Equipment*
- *Assessment and Drafting of Repair Procedures*



Statutory Inspections:

Botswana Factories Act Chap 44:01
Mines and Quarries Act Chap 44:02

Both acts call for periodic, independent inspection and testing of the following equipment

- ▣ *Boilers, steam receivers, air receivers, pressure vessels*
- ▣ *Lifting Equipment*



Engineering Inspections:

- ▣ *Third Party Inspection*
- ▣ *Ultrasonic Thickness Survey*
- ▣ *Wet & Dry Paint Thickness*
- ▣ *Dye Penetrant & Magnetic Particle Crack Detection*
- ▣ *Metal, Rubber & GRP Hardness Testing*
- ▣ *Corrosion Investigation*
- ▣ *Failure Investigation*
- ▣ *Quality Assurance & Quality Control*



Training:

- ▣ *Confined space working*
- ▣ *Boiler attendant*



Clients:

Botswana Vaccine Institute, KBL, KSI, Engen, Scania, Unitrans, Kgale Quarry, Dairy King, Nira (RIIC, Total, Shell Botswana), Babcock TCM, BJ Builders, ICC, Stocks Building, Camphill Community, Capri Bakery, Fast Deck, Kalahari Air Services, Silverton, Pula Groundwater, RG Maintenance, Gopesha, Lamworld (Botswana Defence Force), Asphalt Botswana, Komatsu, Kwena Rocla, Tuba Holdings, SINO Hydro, Tamlac, Tati Nickel, Parmalat, BP

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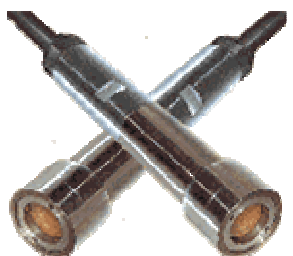
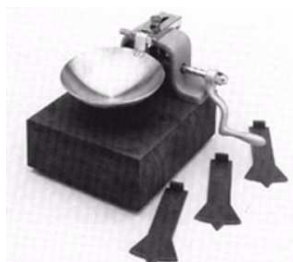
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Sands Civil Services

Equipment Sales

We can supply all your requirements for soils & concrete testing, laboratory, engineering & coating inspection equipment:

Geotechnical Test Equipment



- Moulds for Concrete Test Cubes
- Slump test
- Bitumen penetrometer
- Thermometers
- Nuclear density gauge
- Portable conductivity meter
- Concrete compression testing machine
- Laboratory Glassware
- Sample bags
- Glass plate
- Steel Tampers
- CBR Equipment
- Electronic balances
- Drying ovens
- Compaction hammers
- Magnetic Stirrer
- Piezometer
- Sieves

Inspection

- Coating thickness: Coatings, plating, plastics, GRP
- Ultrasonic wall thickness: Metals & non metals
- Moisture: Concrete, paper, crops, soils, aggregates
- Paint testing equipment: Abrasion, Density, Drying, Elasticity, Flashpoint, Hardness, Opacity Test Charts, Scratch Tests, Viscosity
- Test meters: Airflow, Dew Point, Thermometers, pH, Tachometers, Weather, Pressure, Sound Level, Meters, Test Pumps
- Surface preparation: Grit Blast Profile Gauges, Salt Detection, Surface Cleanliness, Pictorial Stds, International Stds
- Hardness: Metal, Rubber, Concrete
- Inspectors' Accessories: Magnifiers, flexible telescopic mirrors, safety torch, fiberscope, load cells, hire or purchase load bags
- Adhesion: Pull or Push-Off, Cross Hatch Cutters
- Porosity: Spark, Sponge Pin Hole Detectors
- Metal Detectors: Conduits, Bars, Studs, Wall Ties, Electric Cable Locator
- Concrete Thickness: Over Steel Pipes & Re-Bars, Diameter & Direction
- Distance & level meters: Ultrasonic, Lasers, Roller Wheel, Levelling, Plumb
- Viscometer: Cone & Plate models, Rotational Digital, Viscosity Cups

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Insured Loss Assessment



Independent Assessment of:

- ***Validity of claim***
- ***Compliance With Loss Cover***
- ***Root Cause Analysis of Loss***
- ***Repair/Rebuilding Procedures***
- ***Remedial Work Costs***

- ▣ ***Civil Engineering Claims***
- ▣ ***Flooding & Storm Damage***
- ▣ ***Lightning Damage***
- ▣ ***Subsidence***
- ▣ ***Fire Investigations***
- ▣ ***'All Risks' Loss***
- ▣ ***Engineering Claims***
- ▣ ***Corrosion, Degradation***
- ▣ ***Mechanical Failures***
- ▣ ***Theft of Materials & Equipment***

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Jack Buchanan Sands – Summary CV



J B Sands

Work History:

-  **Rockbourne Civil Engineering Contractors – Assistant Engineer**
-  **Sir Alexander Gibb, Consultant Engineers, Kenya – Engineer**
-  **Gulliver Consolidated, Botswana – Site Engineer/Agent**
-  **L.J. Whyte Botswana (Pty) Ltd – Site Engineer/Agent**
-  **Team Engineers, Botswana – Director**
-  **Sands Civil Services, Botswana – Director**

Jack Sands has over 20 years experience in civil engineering and consultancy work around the world.

He has the following qualifications:

BSc. (Hons) Civil Engineering from Southampton University, UK
Professional Engineer registered with The Engineering Council of South Africa
Graduate member of the Institution of Civil Engineers

He has carried out the following projects, activities and responsibilities:

- Carried out geotechnical site investigations for large and small structures throughout Botswana
- Operated a materials laboratory in Gaborone
- Completed gravel exploration for contractors and consultants
- Supplied quality control services for contractors in and around Botswana
- Investigated engineering claims for Insurance companies

Provided consultancy services to contractors (preparation of tenders, computing monthly measures, etc.)

➤ **Projects - Pipeline Soil Surveys:**

- **Scott Wilson Kirkpatrick:** Hukuntsi village water
- **EHES:** Moshupa – Manyana connection
- **Civil Planning Partnership:** N.E. District village water
- **Pula Consultants:** Ramotswa pumphouse & trunk Lines
- **Geoflux (Pty) Ltd:** Water Supplies: Damtshaa Mine, Mabutsane, Serowe, Omaweneno
- **Gibb Africa:** Selebi Phikwe Water Master plan
- **Bergstan Africa:** Molepolole Water and Sanitation, Thuni Dam Bulk Pipeline Routes

➤ **Projects - Foundation Investigations:**

- **MNRC:** National STD Training Centre, Gaborone
- Government Houses in Kasane, Francistown, Ghanzi & Tsabong
- **Time Projects:** Shoprite Checkers, Lobatse
- **William Lee Associates:** National Museum Extension, BEDIA Factory Shells, Gaborone
- **Gauff Liebenbeg & Stander:** Coal Depot Gaborone, RADS Hostels Kweneng District
- **Burrow Binnie:** Ministry of Tourism Offices and Housing, Tsabong, Abattoir for GCC, Gaborone
- **Bauer Consult:** Total Garage, Kang
- **BTC:** Kgale Earth Station
- **NMA:** Club House, Phakalane Golf Course
- **Lasco Eng:** Offices and Workshops for BPC Francistown, Sports Stadium, Jwaneng
- **ADA:** Dept. of Information and Broadcasting Offices, Serowe, Shopping Mall in Mogoditshane
- **C3 Africa:** Ostrich Abattoir for BDC
- **Phakalane Estates:** Phakalane School

➤ **Projects – Construction:**

- **BoFWA:** Offices, counseling chambers in Maun, Kanye & Gaborone
- **Grinaker/LTA:** Offices in Phakalane
- **Boipelego:** Classrooms and Hostels in Sehitwa, Etsha, Kachikau and Kasane
- **MoH:** Laboratories in Molepolole and Serowe
- **Murray & Roberts:** Housing & Offices at Hatsalatladi
- **ACHAP:** Offices Francistown
- **Volvo:** Workshop Gaborone
- Private houses in Ruretse, Notwane & Phakalane

➤ **Projects – Centreline and Gravel Surveys:**

- **Asphalt Botswana:** Gaborone Roads Upgrading
- **CPP:** Goodhope Infrastructure
- **NMA:** Phakalane Phase III, Phase IV, Gaborone SHHA Area, Xakanaxa Airstrip, Orapa – Mabaleng Infrastructure, Jwaneng Infrastructure
- **Arup:** Paje to Mabeleapodi Upgrading
- **Excavator Hire:** Lobatse to Mmathethe Upgrading
- **Roughton International:** Middlepits to Bokspits Upgrading, Shoulder Investigations, Serowe, Palapye, Molepolole, Kanye, Western Bypass to Metsemothaba Road Upgrade –
- **Stewart Scott Int:** Gaborone Central Area
- **Brian Colquhoun, Hugh O'Donnel & Partners:** Selebi Phikwe Infrastructure
- **Liebenberg & Stander:** Kweneng Landfill
- **Bothakga Burrow:** Palapye to Serule, Tsholofelo Infrastructure, Lobatse Infrastructure
- **Bergstan Africa:** Setloa Estates, Gaborone, Thuni Dam Bypass and Access Roads
- **MNRC:** Moshupa Infrastructure Development

Sands Civil Services

John C Stonehill – Summary CV



J C Stonehill BSc MSc




Work History:

-  **UK - Ministry of Defence**
-  **Trelleborg Gummifabriken - Sweden**
-  **British Steel Corporation - Teeside**
-  **Laporte Industries Ltd - Senior Metallurgist**
-  **Stonehill Materials Services – Principal Consultant**
-  **Engineering & Legislative Inspection - Botswana**
-  **Sands Civil Services – Botswana**



John Stonehill graduated from Surrey University UK in 1976 with a BSc in Metallurgy and then completed an MSc in Corrosion Science at UMIST Manchester UK.

He has over 30 years experience providing corrosion, metallurgical and materials testing, inspection and advice services to clients around the world.

He is a Botswana Government approved inspector of:

-  Boilers and Steam Receivers
-  Pressure Vessels
-  Lifting Appliances & Lifting Gear

under the requirements of:

-  Factories Act Cap 44:01
-  Mines & Quarries Act Cap 44:02

In addition to completing inspections he supervises the in-house design, drawing and fabrication operation.

He has:

- ◆ Recommended materials of construction for process plant.
- ◆ Performed laboratory and plant corrosion trials and monitoring.
- ◆ Inspected plant using non-destructive techniques.
- ◆ Drafted inspection schemes for sites.
- ◆ Run research projects on:
 - Submerged arc welding of steel plate
 - Atmospheric corrosion of roofing materials
 - Corrosion of aluminium in the Food Industry
- ◆ Investigated material failures from sites.
 - Stainless steel centrifuge – company won claim for incorrect heat treatment worth £1M
 - Investigated fire at process plant - value £26M
- ◆ Presented evidence to an international committee preparing a code of practice on storage of hydrofluoric acid.
- ◆ Investigated corrosion inhibitor formulations for water treatment and disinfection products.
- ◆ Produced an in-house bulletin on materials issues.
- ◆ Produced guidance notes to set 'company standards' for materials selection and inspection procedures.
- ◆ Designed and installed a cathodic protection system for a water storage tank.
- ◆ Developed and marketed a novel, corrosion resistant coating.
- ◆ Advised on materials selection for the production of ultra high purity (<1 ppb) chemicals.
- ◆ Managed a team of four graduates, technicians and assistants.
- ◆ Trained as an assessor for NVQs.
- ◆ Tested corrosion inhibitors for marine diesel engines.
- ◆ Successfully operated as a self-employed consultant.
- ◆ Provided materials advice and service to sites around the world including Laporte Industries, Baker Petrolite, NIPA Labs, Exide Batteries, Robinson Brothers Ltd, Cleanaway Ltd, Chemical Specialities Inc, Soderec International, Alumina Chemicals, Solvay Interlox, Hays Chemicals, UK Government Health & Safety Executive (HSE).
- ◆ Prepared and distributed publicity material.
- ◆ Developed and sold corrosion related software.
- ◆ Produced a review document on thermoplastic storage tanks for the UK Government:
www.hse.gov.uk/RESEARCH/hsl_pdf/2006/hsl0621.pdf