



LOMBARD
CONSULTING ENGINEERS

INNOVATION
EXCELLENCE
DEDICATION
QUALITY



INTRODUCTION

In 2014 David Lombard and Brian Woolls-King joined forces to establish Lombard Consulting Engineers (LCE). This multi-disciplinary consulting engineering practice has since gone from strength to strength, becoming one of the leading mechanical and electrical building services consultancy practices in the construction industry, especially in the medical and commercial sectors.

Using state-of-the-art computer-aided design software such as Revit and ETAP, LCE provides enhanced, cost-effective, environmentally friendly and proactive engineering solutions and designs.

“We constantly strive for new innovative ways to produce sustainable designs that will reduce the energy consumption of systems and buildings. We aim to deliver beyond expectations. We are the company where passion meets precision,” says Lombard.

The company welcomed two new directors to the board in 2019. Drikus Viviers heads up the Electrical Department and sparks new energy in the team while Carl Coetzee, with his calm but wise wit, brings exceptional insight into the digital construction era.

In January 2022, the company opened its first branch in Centurion, Gauteng, with the help of Amaré Schütte, a mechanical engineer who also heads up the office in the North. Schütte has over two decades of experience in design, supervision, and project management – making her the ideal candidate to join the LCE team in this role.

The directors form a well-balanced team that constantly delivers bespoke engineering solutions with a professional yet personal touch. In addition, the seasoned team of Lombard Consulting Engineers has decades of collective experience in the building industry.



We constantly strive for new innovative ways to produce sustainable designs that will reduce the energy consumption of systems and buildings.

DAVID LOMBARD
MANAGING DIRECTOR

OUR MISSION, VISION & VALUES

MISSION

Our mission is to provide exceptional consulting engineering in the mechanical and electrical field to preferred clients in the building services and infrastructure environment by implementing the most advanced technologies to produce accurate and cost-effective solutions.

VISION

Our vision is to become a leading specialist mechanical and electrical engineering consultant in all major cities in Southern Africa. Quality service and leading-edge technology will lead to exceptional designs at the forefront of innovation and performance.

VALUES

Our core values are ingrained in our day-to-day activities and form the benchmark of our business:

- Ethical and reliable products and services
- Diligent and efficient service delivery
- Accurate and concise engineering
- Provide an enjoyable day-to-day working and office environment
- Create a culture that strives to always improve and find solutions that exceed the norm
- Pursue technology that can improve our services and solutions

OUR DIRECTORS



David Lombard

Pr Eng (Mechanical)

David has a passion for large energy-efficient systems and the drive to go green. He is professionally registered with ECSA and obtained his Professional Engineering status in 2004. His attention to detail on all fronts of the building industry makes his experience an asset of great value to all working with him.



Drikus Viviers

Pr Tech Eng (Electrical); B Tech (Project Management)

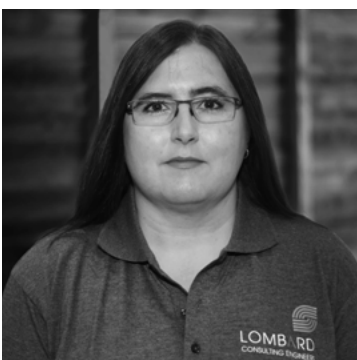
Drikus has vast experience in electrical engineering and project management in South Africa, the United Kingdom and various African countries. Specialising in electrical building services and infrastructure, he has been responsible for designing and managing projects, including commercial developments, offices, historic buildings, residential healthcare, education, retail, leisure, and the petrochemical industry.



Carl Coetzee

Pr Eng (Mechatronics)

Carl is exceptionally driven with a deep-rooted passion for Building Information Modeling (BIM) and digital construction. He strives to innovate and implement new technology, improving project workflows from inception to completion. His goal is to deliver the future of construction through cutting-edge, sustainable and eco-friendly designs.



Amaré Schütte (Director: LCE North)

B Eng (Mechanical)

The office in Centurion, Gauteng, is headed up by Amaré Schütte, a mechanical engineer with over two decades of experience in design, supervision and project management on a variety of projects. She has a passion for the environment and endeavours to deliver sustainable and eco-friendly designs.

OUR TIMELINE



2014

Incorporation of BWK Engineering in Lombard Consulting Engineers (Pty) Ltd. David, Brian and Carl burn the candle at both ends to set the quality standard for all future projects.

2015

Notable projects completed, including V&A Waterfront Silo Precinct Chilled/Seawater Cooling Plant (6-Star Green Star rating), The Edge (5-Star Green Star rating), and Mediclinic Panorama's Chilled Water Plant Refurbishment (done in minimal down time to the theatre operations).

The LCE family is **growing**. Drikus joins the LCE team to open its Electrical department and all BWK staff move over to the LCE office.

2018

LCE enters the South African **Data Centre** market and signs up project with Department of Transport and Public Works: **Western Cape Government**.

2017

Move to **bigger** premises. LCE appointed as custodial of **HVAC Master Planning** for future development at Stellenbosch University and commenced with design of **Lake Water Cooling Plant** at Stellenbosch Business School in Bellville.

2016

The team reaches **ten** staff members landmark.

2019

Carl completes **Autodesk** Case Study. Drikus and Carl are promoted to **directors**. **Mediclinic** Stellenbosch and Vergelegen are completed.

2020

Covid-19 pandemic strikes but LCE did not have to retrench any employees. Becomes sole provider of **AUGmentecture** in South Africa.

2021

LCE becomes its **own landlord** with offices in Durbanville. Completes upgrade of **Sanlam Data Centre** and improve **PUE** from 2.3 to 1.6.

2022

LCE opens its new office in Gauteng. Start on new **Mediclinic George**.



OUR SERVICES

MECHANICAL SERVICES

Heating Ventilation & Air Conditioning

- Theatre air conditioning including Laminar flow theatres
- District cooling and chilled water systems
- Lake and seawater cooling systems
- VRF and split unit systems
- Kitchen and other ventilation systems
- Data centre cooling

Wet Services

- Hot & cold-water reticulation
- Building drainage
- Hot water systems including solar, heat pump systems and heat recovery systems
- Pump stations
- Greywater systems

Other

- Replacement of existing central plants with minimal downtime
- Building management systems (BMS)
- Finetuning/optimising of existing HVAC systems
- Elevators and escalators
- Industrial kitchen designs
- Pneumatic tube systems

Green Design

- Mechanical services for green buildings
- Plant efficiency upgrades
- Free cooling designs
- Lake and seawater cooling systems

Gas

- Medical gas plant and reticulation
- Laboratory gas plant and reticulation
- LPG gas plant and reticulation

Fire Protection

- Hose reels, hydrants and extinguishers
- Fire (gas) suppression systems



OUR SERVICES

ELECTRICAL SERVICES

Building Services

- Small power distribution and containment systems
- Lighting designs, lighting control systems and emergency lighting design
- Earthing design and earth resistivity calculations
- Lighting protection and risk assessment
- Surge protection system design
- Motor and motor control systems
- Renewable energy systems
- Building management systems (BMS)

Electrical Distribution

- MV Power distribution systems and switchgear design
- LV Electrical reticulation and distribution panel design
- Power generation systems, including change-over control, synchronisation and monitoring
- Uninterruptible power supply systems
- Solar power system design (PV)
- MV and LV discrimination calculations
- Short circuit fault analysis
- Arc flash analysis
- Load flow analysis
- *ETAP software used for analysis

Communication Systems

- PLC and SCADA system design and development
- Integrated nurse call and disabled alarm systems
- Public address and disabled refuge systems
- Audio-visual and automated display system
- Security systems including access control, intruder alarm and CCTV
- Data and telecommunication systems
- Fire detection and fire suppression systems

OUR SERVICES

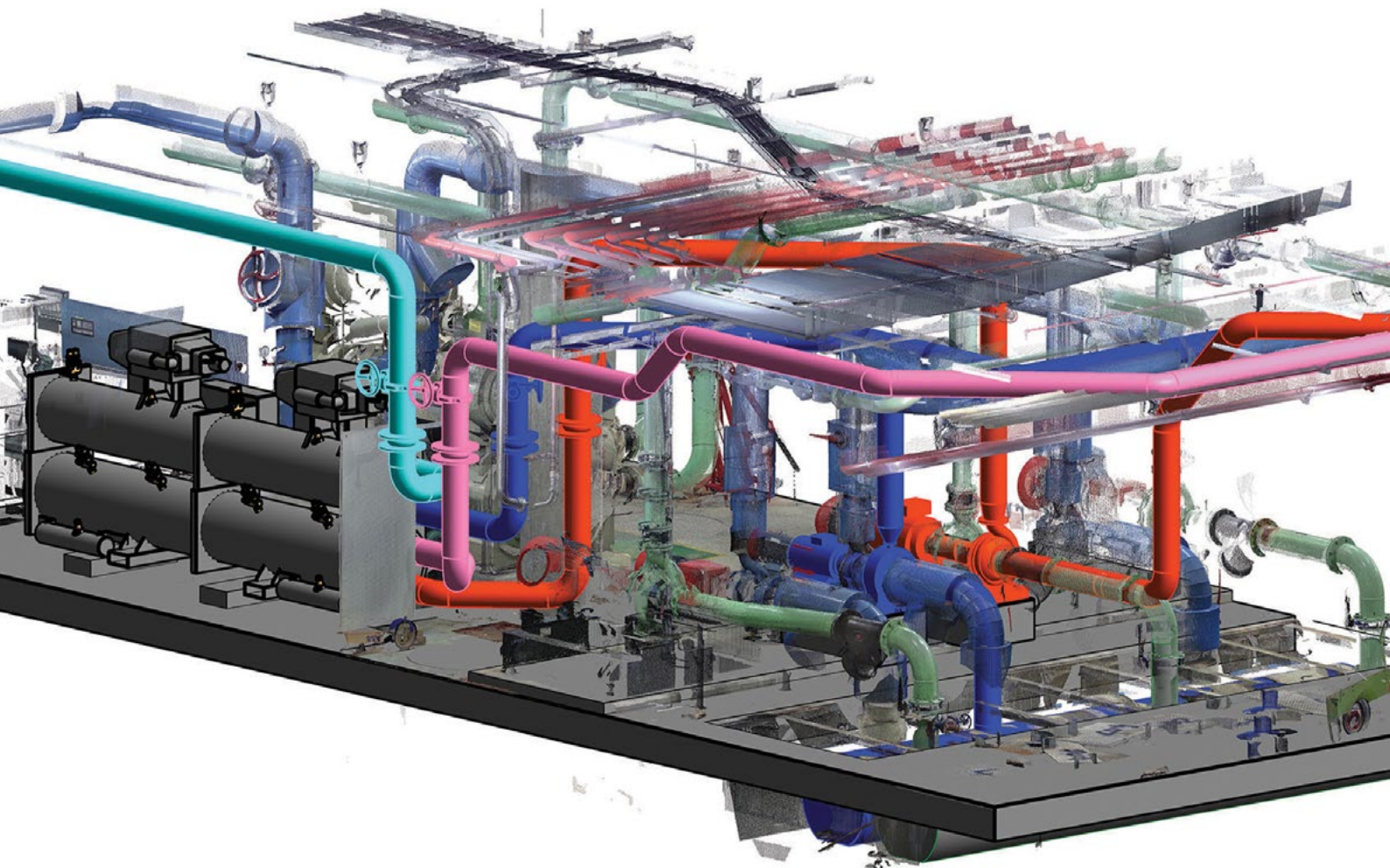
DESIGN & AR+

Augmented Reality

- Incorporation of Revit/design work into AUGmentecture platform
- 3D AR+ available on clients' and contractors' mobile devices, tablets, on-site or office
- Sole agent for AUGmentecture application in South Africa

Design

- 3D scanning of existing plant and systems
- Revit certified professional (3D design and coordination)
- Active application of BIM



NOTEWORTHY PROJECTS

MEDICAL & HEALTH



Mediclinic Panorama

Project description: Mechanical services comprised of the upgrade of existing heating & cooling plant, including domestic hot water heating; upgrade of chilled water plant; upgrade of the theatre air handling unit. Replacement of plants was done in minimal downtime to the theatre operations.

Value: R18 million (services)

Year: 2015

Mediclinic Paarl

Project description: Lead mechanical and electrical engineers from start to finish for the entire upgrade of the hospital. Full mechanical and electrical design and on-site supervision of all hospital services installation.

Value: R35 million (services)

Year: 2017 - 2022

Mediclinic George

Project description: Lead mechanical and electrical engineers on new built hospital. Full mechanical and electrical design and on-site supervision of all hospital services installation.

Value: R150 million (services)

Year: 2022 - 2024

Mediclinic Vergelegen

Project description: Lead mechanical and electrical engineers from start to finish for the entire upgrade and new built hospital. Full mechanical and electrical design and on-site supervision of all hospital services installation.

Value: R135 million (total project) | R26 million (services)

Year: 2012 - 2019

Mediclinic Stellenbosch

Project description: Lead mechanical and electrical engineers from start to finish on new built hospital. Full mechanical and electrical design and on-site supervision of all hospital services installation.

Value: R235 million (total project) | R60 million (services)

Year: 2019

Other

Mediclinic Centurion; Mediclinic Emfuleni;
Mediclinic Howick; Mediclinic Pietermaritzberg;
Mediclinic Hermanus; Mediclinic Cape Gate;
Mediclinic Heart; Mediclinic Kloof; Mediclinic Medforum;
Mediclinic Meulmed; Mediclinic Morningside;
Mediclinic Louis Leipoldt; Mediclinic Sandton;
Mediclinic George; Mediclinic Durbanville;
Mediclinic Cape Town; Mediclinic Bloemfontein

NOTEWORTHY PROJECTS

PUBLIC & INSTITUTIONAL



Stellenbosch Business School

Project description: Deep water lake cooling plant – providing lake water pre-cooling, plant cooling and heating to the buildings.

Value: R10 million (services for phase 1)

Year: 2017 - 2019

Stellenbosch University

Project description: Central campus precinct district cooling plant implementation.

Value: R13 million (services for phase 1)

Year: 2018 - 2019

Hanover Park Clinic

Project description: New clinic in Hanover Park

Value: R23 million (services)

Year: 2018 - 2024

Tygerberg Building Management System (BMS)

Project description: Upgrade and expansion of existing BMS.

Value: R8 million (services)

Year: 2019 - 2021

Tygerberg Block A - ICU Upgrade

Project description: 10 Floors of ICU wards upgraded.

Value: R45 million (services)

Year: 2019 - 2024

Engineering Building Stellenbosch University

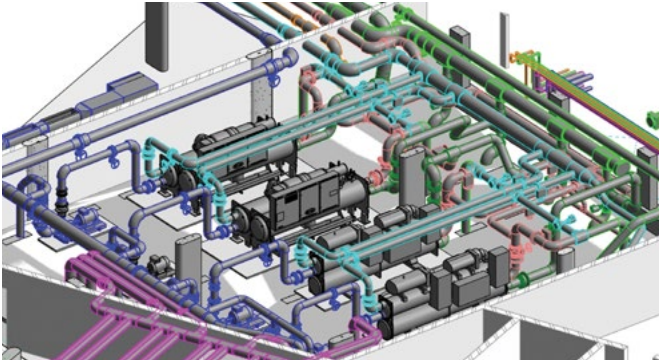
Project description: 6000kw of cooling plant providing heating and cooling to the entire engineering precinct.

Value: R30 million (services)

Year: 2020 - 2024

NOTEWORTHY PROJECTS

COMMERCIAL & INDUSTRIAL



V&A District Cooling Plant

Project description: New seawater district cooling plant for Silo Precinct Project – supplying 6-Star Green-rated Silo 5 Building.

Value: R20 million (services)

Year: 2015



Cubimanzi Investments and Tenants

Project description: New AAA grade office of The Edge – 5-Star Green rating. Design of lake water cooling plant system and electrical and mechanical services for various tenant fit-outs.

Value: R20 million (services)

Year: 2015



Scuderia House

Project description: Base electrical design of multi-story building.

Value: R15 million (services)

Year: 2018



Growthpoint

Project description: Various tenant fit-outs throughout the Western Cape.

Year: 2021 - ongoing

NOTEWORTHY PROJECTS

DATA CENTRES



Sanlam Data Centres

Project description: Complete upgrade of Sanlam Data Centre and improve PUE from 2.3 to 1.6 and still improving.

Value: R35 million (services)

Year: 2019 - 2022



Amazon

Project description: Lead electrical site engineer during the construction of several Amazon data centres in the Western Cape.

Year: 2020 - 2022



LOMBARD CONSULTING ENGINEERS
SAVES THE ENVIRONMENT, ONE
BUILDING AT A TIME

OUTREACH

CREATING SOLUTIONS FOR SUSTAINABLE COMMUNITIES

We strive to make the world a better place through innovative, sustainable engineering solutions and designs and service to our community. We invest our passion, time, and resources in projects that can make such a difference.



Education

We believe that education can make a lasting difference in young people's lives. That is why we are funding Athule Ngqentsu's tuition fees as she works towards her vision of becoming an actor and motivational speaker. Athule has several disabilities and is a wheelchair user. She is doing a Higher Certificate in Performing Arts at AFDA.



Growth

Our team does regular training and development programmes to enhance their technical knowledge and skills and ensure we are up to date with the latest industry best practices. Corazone Sibanda from our Electrical Department successfully completed her Fire Detection Principles course. We also regularly welcome students to our office where our experienced team offer them mentorship. Most recently Brandon Schnehage joined us to gain practical experience as part of his studies.



Caring

The LCE engineers evoked the spirit of Madiba and volunteered their time and efforts to reach their goal of making 1660 sandwiches in total for the Ladles of Love organisation on Mandela Day. The organisation feeds the hungry in Cape Town through a network of registered NPOs. We also donated over 30 tubes of toothpaste when the Durbanville Children's Home reached out to the community when they were in need.



Environment

Bees are one of the most vital members of our ecosystem, responsible for pollinating plants that make up a significant portion of our food supply and help control erosion, provide animal habitat, and increase oxygen while mitigating carbon dioxide. Therefore, we have invested in urban beekeeping by having several "supers" at our office to contribute to sustainable development.

VALUE ADDED SERVICES



INNOVATION

- Forerunners in digital construction: BIM, Revit, 3D Scanning, ETAP and more
- We offer unique and out-of-the-box solutions



EXCELLENCE

- Medical and healthcare building services – we wrote the book on it
- Fresh energy combined with knowledge and experience



DEDICATION

- A personal touch – directors value each client and are personally involved in every project
- We are dedicated to taking care of our staff so that they take great care of our clients



QUALITY

- Our services exceed the quality expected from a corporate combined with the flexibility of a small business
- We offer cost-effective solutions to your challenges

KEYS TO OUR UNIQUE SUCCESS

Take care of our staff



Personal touch



Think outside of the box



Digital construction



Our name



Quality



Knowledge



Building services



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