

ENVIRONMENTAL CONSTRUCTION ELECTRICAL

SYNERGY

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INTRODUCTION

ENVIRONMENTAL
CONSTRUCTION
ELECTRICAL



CORE BUSINESS

Electrical and Construction services.

ESTABLISHED

Synergy was established in Cape Town, South Africa in 1994. (Peter / Mitchley Projects)

SERVICES OFFERED

The company is project based and offers turnkey solutions for any projects requiring electrical and or construction services.

MISSION STATEMENT

Provide high quality electrical and construction services efficiently.

KEY STRENGTHS

The ability to work anywhere and under difficult circumstances. The ability to adapt to any environment and overcome adverse conditions.

Twenty years' experience of project based work in ever changing environments such as -30 to 50 degree temperatures.

The embrace of technology both on site and for administrative purposes. This allows the company set up site anywhere and manage the project efficiently.

Core staff complement who are able to perform a broad spectrum of tasks which enables the company to offer a wider variety of services with a smaller staff complement on site. The staff have experience in travel both locally and international. Where required the core staff will work with local labour to complete tasks which require additional man power.

COMPANY AIM

Provide excellent service to our clients, thus ensuring futher work which will create a secure working environment for both the staff and company. Ensure that the skills development of the staff is constantly improving and to utilise technology whereever possible to perform more efficiently and cost effectively. Work in an environmentally conscious manner.

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THE COMPANY WAS ESTABLISHED IN 1994 IN CAPE TOWN, SOUTH AFRICA.















CORE BUSINESS

Electrical and Construction services.

STRENGTHS

Highly skilled core staff.

Vast experience in both electrical and construction industry, in many different environments.

Willingness to work anywhere under adverse conditions.

Embracing new technology and changing work methodology to suite specific project needs.

COMPANY MISSION STATEMENT

Provide high quality electrical and construction services efficiently.

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COMPANY PROJECT METHODOLOGY

Our small core staff complement has grown in knowledge and experience with each new project which the company has undertaken. The company structure and the use of internet based reporting, communicating and information access, has allowed the company to setup sites anywhere quickly and efficiently. We are able to adapt to most adverse conditions and environments with the majority of work being done in house.




COMPANY TIME LINE AND PASSED PROJECT DESCRIPTIONS



1994 CAPE TOWN

www.vdmma.com

www.cargo-vessels-international.at/S.A.HELDERBERG_MO7423029.pdf

www.engineeringnews.co.za/article/r72million-aircraftcar-museum-opens-doors-2002-01-25

www.youtube.com/watch?v=vmzAxYiHM1E

2006 to Current Francis Bay & Port Elizabeth

www.topbilling.com/articles/A-Dream-Beach-House

www.stfrancisfield.com

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PASSED PROJECT DESCRIPTIONS



1994- CAPE TOWN

RESIDENTIAL ELECTRICAL INSTALLATIONS

- Completed over 400 domestic electrical projects, in houses ranging from 300 to 1200 square meters.
- This entails supply and installation of all circuits, switch gear and lighting. Testing and ultimate supply connection to the municipal power grid.
- Smart house installations.
- Plant rooms with Johnson Control Gear. Humidity,
- Temperature, controllers, controlling micro jets, extractor fans, under floor heating, wet wall and louvres.

CAPE TOWN INTERNATIONAL THUNDERCITY

- Contract awarded to supply and install all electrical components for the Aircraft Museum and
- Entertainment Facility.
- 22 Kv supply connected to the high voltage Lucy Switch.
- 22 Kv to 380 V transformer installation.
- Main distribution board installation.

TELKOM VENDOR

- Electrical Work in telephone exchanges.
- New offices lighting, power skirting, telephone and data line installation.
- Power supplies.

UCT MAINTENANCE

- CT Metering, Groote Schuur Hospital.
- Forest Hill Flats (150 quantity). Old fuse boards
- removed and replaced with circuit breakers.
- Engaged in a power saving program to change all the old residence boilers from resistive elements to heat pumps.
- Remote ballast fluorescent lights dimmed with 6 Volt anode heating installed in lecture theatres.
- Industrial Kitchen installations and maintenance. Installation of new kitchens with power supply, distribution boards, cooking appliance connections and lighting.
- Computer room UPS clean line installations with separate earth conductors.

COLD STORAGE PLANT

- Paarden Eiland Cold Storage ammonia refrigeration plant installation and maintenance.

LUSITANIA

- Lusitania refrigeration plant maintenance.
- -20 degree Celsius working conditions.
- Mobile rack control maintenance. PLC, motion and limit switch wiring and fault finding.
- Instrument to control panel wiring, electric motor controls star delta, auto transformer, direct on line and speed control.

PARMALAT

- Installation of 3 phase socket outlets for refrigerated trucks.

YACHT WIRING

- Leisure yacht wiring, generator, 380 V, 12 V, Transducers, Computers and navigation systems.

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PASSED PROJECT DESCRIPTIONS



- Fishing vessels, lighting and blast freezers and Generators.

CONSOL GLASS

- Ducting, install power cables, new distribution board and speed controls.

TODWIL ADVERTISING DISPLAY CO.

- Project based company Research and
- Development for 3 meter cubed forming oven, polystyrene cutting machines, lighting displays.

RESIDENTIAL CONSTRUCTION

- Constructed 10 turnkey residential units in Cape Town suburbs. This involves contract negotiation,
- Engineer and Architect interaction. Program scheduling, sub contractor appointments and materials procurement. Quality control and constant site supervision.

MARINE ELECTRICAL WORK

- Cape Town Harbour worked on Fishing Trawlers.
- Ammonia refrigeration plants, control, transducers and gauges. Re wired electrical control panels.

SAFMARINE REEFER SOCKET INSTALLATION

- The company was awarded a contract to upgrade the deck power supply sockets on the 4 Big White
- Safmarine container ships. This entailed supplying multiple teams which boarded the vessels and completed the installation as the ships sailed.
- The project scope was to supply and install cables, distribution boards and reefer socket outlets.
- Installation description and responsibility. Cable routes were identified from the engine room to the upper deck position. Deck penetrations were cut and sleeves welded. Cables were installed, all deck penetrations sealed with
- Class approved compound. Associated switchboards were installed in the cable tray passage. Deck sockets were mounted and cables were terminated. Final connections to the main PTO were done once all testing had been performed.

SAFMARINE HELDERBERG AND WINTERBERG DRY DOCK SOUTH HAMPTON

- New Cerebus fire alarm installation and commission. The old antiquated fire alarm was removed along with the 150 sensors. A new Siemens Cerebus computerised panel was installed in the Bridge. New smoke and flame sensors were installed. The system was booted up and configured. Testing of all detectors was performed and the system was handed over to the ships staff.

MV LIGUA REEFER SOCKET INSTALLATION SINGAPORE TO SOUTH AFRICA

- Joined ship in Kuala Lumpur and sailed to Durban South Africa. Manufactured and welded new brackets for the deck socket outlets. Changed existing deck socket outlets to 400 V Three Phase. Re Wire Transformer tapping to change voltages.

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PASSED PROJECT DESCRIPTIONS



2006 TO CURRENT ST FRANCIS BAY & PORT ELIZABETH

CONSTRUCTION OF UP MARKET RESIDENCES

- 4 level unit, lift installation, stand by generator.
- 9 Residential homes constructed in and around St Francis Bay

CONSTRUCTION OF ST FRANCIS VINEYARDS RESTAURANT AND WINERY BUILDING.

- 7 Ha irrigation, borehole.
- 3.3 Kv reticulation to 3 Phase 380 V transformer.

DEVELOPED 18 AIRCRAFT HANGARS.

- Purchased two erven and developed 18 Aircraft
- Hangars ranging in size from 100 square meters to 280 square meters. Property was changed to sectional title and sold individually.

HIGH VOLTAGE RETICULATION FOR AIRFIELD DEVELOPMENT.

- Installed 3.3 Kv to 220V transformers. 11 Kv Transformer and switch gear work.
- 22 Kv Pole fuse and Transformer work.

CONSTRUCTION 175 RDP HOUSES BUILT IN CALA, EASTERN CAPE. CLIENT NHBRC (RESIDENT ENG T K MNGUNI)

- Contract to rectify RDP housing scheme in the Rural Eastern Cape.
- The site compound was constructed using existing housing structures. The compound catered for all staffs accommodation, storage and concrete mixing plant.
- Sand aggregate was sourced from the local river, siving and cleaning was done at the mixing plant.
- Demolish 175 condemned houses in the rural Eastern Cape.
- Install 6 meter by 6 meter raft slab 20 mpa with 5mm tolerance. Power floated.
- Maxi brick, wooden truss and zinc IBR roof sheeting structure.
- Local labour training program instituted.
- All Materials procured more than 400 Kms from site.

ENERGY AUDITS

- Site investigation, Electrical meter verification, Invoices processed and analysed, negotiate better rates with electrical authority.
- Evaluate all energy saving procedures and hardware specifically paying attention to capital expenditure vs recoup period. Energy
- Meter metering by remote methods.

REFERENCES

David Kramer Ships Architect (Seaspan)
Herman Pietersen (Engineer), Mike Hurworth (Engineer), Dave Hal (Engineer)
Ian Van Oordt (Engineer), 4 EM consulting (Engineer)
5 Elements (Restaurant), Booth Jones, Sandy Kendal, Mont Blanc



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