



MDA PROPERTY HOLDINGS (PTY) LTD

Net Zero Carbon (Pilot) - Level 1

Building Emissions (modelled)

Including 0% Offset Purchased



NET ZERO

carbon

AFRICA

South Africa
MDA PROPERTY
HOLDINGS (PTY) LTD

PILOT - Level 1: Building Emissions
(modelled)

— Including 0% Offset purchased

Level 1 Level 2 Level 3 Level 4 Level 5

Validity: March 2019 - March 2022

GREEN BUILDING COUNCIL
SOUTH AFRICA



The MDA Property Holdings building is designed to give its users a workplace that not only enhances their productivity but also reduce the natural resource depletion on the environment. The office boasts various spaces to work privately, collaboratively and interact socially. The project is a modernization of an existing old house and an extension of the office accommodation with the steel and glass structure in 33 West Street Houghton Johannesburg. The project joins one of the first few Net-zero rated buildings in South Africa. Due to sensible design, the two-story offices are characterized by optimized solar control, daylight and HVAC system design that altogether make it consume minimal energy when compared to an both local and international benchmarks. Above and beyond low energy design, the building uses P.V panels for power. As a result, the building produces more energy than it consumes.

Energy

- An extensive photovoltaic (PV) system is installed onto the building's roof offsetting its electrical needs.
- The variable refrigerant flow (VRV) HVAC system installed has heat recovery with reverse cycle heating. This system is currently the most efficient system available.
- High performance double glazing is used for all curtain walls.
- The office areas are designed to be naturally lit for a significant portion of the year thereby reducing the reliance on electrical lighting.
- Efficient LED lighting is provided throughout most of the building. This results in a lighting power density of less than 1.7W/m² per 100 lux to ensure minimal energy consumption. The lighting system also features occupancy lighting controls allowing the building to only use have electrical lights on when necessary.

- Submetering of major water and energy consuming systems were installed. Furthermore, monitoring systems are installed in order to facilitate ongoing management of energy and water uses.

Water

- The building is to be fitted with a rainwater harvesting system which will be used to offset potable water use in the tenancy.
- The building makes use of water efficient sanitary fittings.
- The site is fitted with water conserving gardens to further reduce water use.
- Water meters and an automated monitoring system manage water consumption.

Transport

- In order to offer alternative means of transportation for buildings users, the building contains cyclist facilities for both building occupants and visitors.
- The building is within 600m walking distance from bus and taxi services.
- Several local amenities such as gyms and shops are within walking distance from the site, this will reduce car trips made during the day.

Materials & Waste

- A waste recycling storage area is provided to encourage recycling of resources used within the building to reduce waste going to landfill.

PROJECT TEAM:

<p>OWNER MDA Property Holdings (PTY) LTD</p> <p>ACCREDITED PROFESSIONAL Solid Green</p> <p>ARCHITECT Activate</p>	<p>ELECTRICAL ENGINEER Izazi Consulting Engineers</p> <p>MECHANICAL ENGINEER Izazi Consulting Engineers</p> <p>QUANTITY SURVEYORS MDA Property Holdings</p>	<p>STRUCTURAL ENGINEERS Struxit Projects</p> <p>SUSTAINABLE DESIGN REVIEW Solid Green</p> <p>SUSTAINABLE BUILDING CONSULTANT Solid Green</p>	<p>MAIN CONTRACTOR Radon Projects (PTY) LTD</p>
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