The Willows Office Park

Green Living Guidelines

The Willows Office Park incorporates several "Green" as well as "Energy Efficiency" initiatives to ensure an environmentally friendly, sustainable and cost effective existence is achieved by all occupiers of the buildings.

The various initiatives are discussed below together with a few guidelines on how best to live with and benefit from these initiatives.

1. Electricity Supply

Electricity is supplied to the park by Johannesburg City Power. The power supplied in the area is not always sufficient or guaranteed and therefore a backup electricity supply has been incorporated into the development.

The electricity to each block is supplied via an inverter with an associated battery bank. The inverters are always on and constantly monitor and condition the City Power supply to supply 230V. If the City Power supply falls to, for example, 210V during peak demand the inverter automatically adds the additional power required from the battery bank thereby keeping the supply to each block at a constant 230V. This protects and extends the lifespan of all electronic equipment being used on the premises.

In the event of a power failure (e.g. load shedding by City Power) the battery banks will supply sufficient electricity, via the inverters, to each block to ensure that essential office operations are capable of continuing without interruption. (Essential operations include computer and communication networks as well as office lighting whilst non-essential operations include air-conditioning and other equipment that use large amounts of power) Once the City Power supply is returned the inverters will automatically start recharging the battery banks and power will be restored to non-essential operations.

This system provides each office with 60 Amps for 8 hours per day and recharges the battery banks at night. Should additional power be required at a future stage, for whatever reason, each inverter has a built-in ability to manage a generator, solar panels, wind generators and/or fuel cells.

2. Electricity Efficiency and Consumption Management

An important element of energy conservation is the ability to control the amount of electricity consumed. To ensure a sustainable electricity conservation program is maintained all offices are fitted with automatic as well as manual on/off switching of all lights and air-conditioners. Each individual office and/or open-plan area within each office is fitted with a motion sensor that will automatically switch off the lights and air-conditioner in the area concerned as soon as it detects no motion in the area. The lights and air-conditioner are switched on again once motion is detected. In addition to this each individual area can be switched off via manual switching.

All lights and air-conditioners installed to the offices are low consumption and energy efficient. The fluorescent tubes are T5 lights and all down-lighters are CFLs. The inverter air-conditioning units are rated at 900 Watts per 12,000BTU which represents a power saving over conventional air-conditioning units of 40%.

In order to ensure low electricity consumption is achieved and maintained all occupiers are encouraged to make use of LCD computer screens and energy efficient kettles and microwave ovens. Since kettles, microwave ovens and toasters all use a similar amount of electricity each it is important to ensure that only a single appliance is used at any one time.

Should heating of the office space be required in winter it is recommended to make use of portable gas heaters instead of the air-conditioner units.

3. Solar Water Heating

Hot water is supplied to each office block via a vacuum tube solar heating panel and is stored in a 150l geyser. The hot water is circulated from the panel to the geyser via a solar powered pump.

The solar geysers are not connected to an electricity supply and therefore will only provide hot water during sunny periods.

4. Gas Installation

Each kitchenette is fitted with a counter top double gas burner with an under-counter gas cylinder. The gas burner is installed for the purpose of heating water for both tea/coffee consumption and washing of dishes should it be required (e.g. during extended overcast weather when solar geysers run out of hot water)

5. Rainwater Harvesting

The development is designed to reduce water consumption by using rainwater to flush toilets. Rainwater is collected from each roof and is stored in water tanks in each basement. The water is filtered and then pumped into each toilet for flushing. During dry spells the tanks are supplied with a combination of borehole and water mains. This system ensures continued service during failures in water supply.

Please note that the development has two separate piping systems installed; one for drinking and washing water (i.e. water that is piped to the basins and kitchen sink) and one for toilet flushing water.

6. Groundwater Harvesting

Groundwater is harvested via underground cut-off drains that are installed along the property's eastern and southern boundaries. The groundwater originates from a spring on a neighbouring property and flows throughout the year. The groundwater is stored in two underground storage tanks. The groundwater is used for irrigating the gardens throughout the development. Borehole water is used to supplement the irrigation system should it be required.

7. Borehole

Borehole water is used to supplement the rainwater as well as the groundwater harvesting tanks during dry spells.

8. Refuse Recycling

Refuse recycling is encouraged and managed. Each office block basement is provided with three "wheelie" refuse bins for the following use;

Recyclable	:	Orange	-	Plastics and glass
		Green	-	Paper and cardboards
Non-Recyclable	:	Black (with red lid)	-	Other waste

The recyclable waste will be collected fortnightly on Fridays. The non-recyclable waste will be collected fortnightly on Wednesdays.

The bins will be managed by the cleaning and gardening staff. Non-recyclable waste bins will be rolled to the gate and placed on the pavement to await collection on the specified collection days where after they will be cleaned and returned to each basement. Recyclable waste bins will be checked daily and, if full, they will be emptied into the appropriate bulk container in the refuse area.

All tenants of the park are requested to support this initiative and ensure that waste is handled appropriately. Tenants are encouraged to bring their recyclable waste from home and to dispose of it in the manner prescribed.

Please note that the refuse area is only to be used for the waste specified and not for dumping unwanted furniture, equipment and/or other waste.

PLEASE SUPPORT THESE GREEN LIVING GUIDLEINES, YOU WILL BE HELPING TO CREATE A SUSTAINABLE WORLD FOR YOUR CHILDREN TO LIVE IN