

Eco-friendly elements

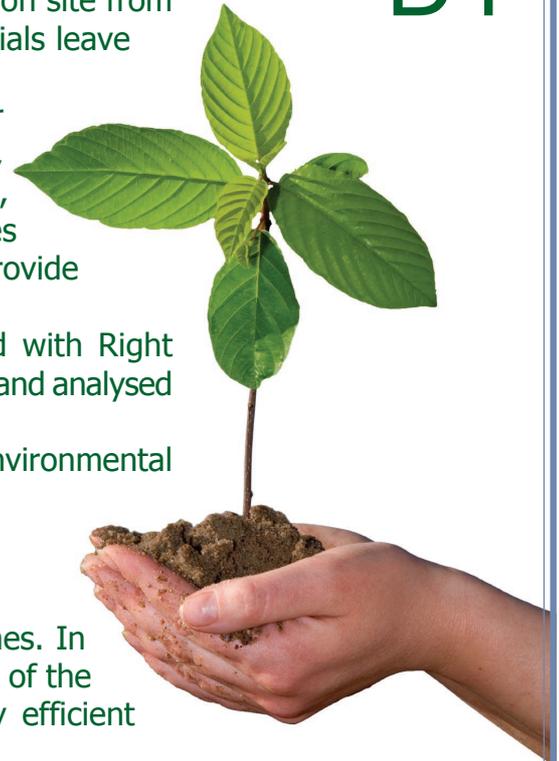
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Kensington Park utilises full recycling/re-use of all materials on site from the previous use (Motor camp and campground). No materials leave the site.

Kensington Properties is the exclusive development partner of Meridian Energy owned "Right House". Since mid 2006, we have worked together to design the most energy efficient, environmentally friendly housing possible. Each house does cost us more to build, but the future performance will provide huge payback for our home users by:

Each Kensington eco-home has been holistically designed with Right House. Every part of the house is considered, designed, tested and analysed for 12 months usage in our initial eco-homes on site.

Developer, builder and homeowners 'doing their bit' for environmental responsibility.



LIGHT

1. Style energy efficient bulbs are used throughout all homes. In New Zealand, lighting accounts on average for about 8% of the total electricity consumption in a normal home. Energy efficient lights save up to 80% of this.
2. An option for purchasers is to have a 'photovoltaic array' system installed. A photovoltaic array, otherwise known as a solar photovoltaic panel, is a collection of solar cells set up to convert solar energy into electricity. The energy from a solar cell is by itself relatively insignificant, but when linked together into an array can generate enough power for practical use. Generating on average 1kw per hour, the ARC meter is able to be linked into the national grid, extensively reducing the cost of electricity. This is an added cost for purchasers.
3. House location and window positioning for passive solar gain optimization.
4. House design layouts that optimize natural light throughout the house.

HEAT

1. A reverse cycle heat pump/air conditioning system provides an effective means of heating and cooling. The building layout and design allows sufficient passive cooling, as well as air-conditioners which reduces the risk of overheating.
2. Heating and Cooling is managed through passive solar design, utilising the sun movement as it travels from East to North with the manual control shades for cooling in the summer.
3. Insulation under the floor keeps the house warmer and helps to avoid cold spots and reduces the risk of mouldy carpets. 40mm expanded polystyrene under slab and perimeter insulation is used.
4. Wall insulation keeps the heat in. Warm wall surfaces also make us feel more comfortable. Insulation is installed in all external walls to R2.8. In the summer insulation helps to keep the heat out.
5. The roofs are also insulated with R3.6 insulation.
6. Clear double glazing with aluminium frame is used to let sunlight and solar thermal energy into the building, reducing the amount of heat we need to purchase. Double glazing almost halves the heat losses through windows.
7. Energy efficient appliances are used.

WATER

1. Water heating accounts for about 30% of the household energy consumption. The use of an external cylinder is used with the open loop system within roof panels. Panels are north facing and are run off a gas system.
2. Water for garden irrigation is taken from the park lakes. These lakes are filled by the extensive water run-off coming from the park hillside, which is not only an attractive water feature, but also acts as a retention reservoir for the extensive gardens within Kensington Park.

RECYCLING

1. As mentioned above, the water from the hillside is recycled back into the park via irrigation onto the extensive garden areas.
2. Prior to Kensington developing the land, there were seven large Macrocarpa trees on the hillside. These were milled offsite, then brought back on and used to make the boardwalks throughout the reserves.
3. From the previous camping ground there was large areas of concrete to be removed. Over 5,000m of concrete has been gathered and recycled, crushed on site and used as base course under new roads.
4. Approximately 5,000m of asphalt and road base course has been recycled and compacted as engineered fill under building foundations.
5. All trees/plant material previously on site (except noxious weeds) mulched and used as compost.
6. No soil at all has left site. Careful cut to fill engineering design exercise has been used to minimize trucks on our region's roads.

CONSERVATION

1. A stand of twenty one, 300 year old Puriri trees previously formed part of the original camping ground. These have been carefully preserved and protected to enhance their life. Kensington have been careful to ensure the birdlife which live in and feed off the berries are protected and their environment unharmed.
2. The park had various tree planting, mainly palms, which were all transplanted and incorporated into the landscaping development.
3. By protecting a particularly large native Pohutukawa tree we realigned the street to go around the tree.
4. Green roofs feature throughout the park, enabling the buildings to merge into the landscape. Green roofs also benefit the environment by removing the CO2 from the air and release oxygen, as well as managing stormwater runoff by retaining rainwater.
5. We manage reduction of construction waste to traditional rubbish skips by up to 85%.
6. Minimising the impact on local infrastructure from our new development is important. Storm water is collected from site and the surrounding community, cleansed, before careful release into the adjoining stream.
7. Lake water feature used as water supply for all landscaping irrigation.
8. Low toxicity carpets and paints are used.
9. Master plan design is focused on walkability, including full neighbourhood facilities, greatly minimizing the need for localized car travel.
10. Parks and reserves within the neighbourhood, not a car drive away.

