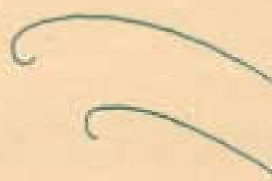


MM

ECO HOSPITAL FOR WAITAKERE



IV



An eco city and a hospital to match

Waitakere City Council has long advocated for a hospital for Waitakere. Now that battle is won, Council is suggesting that in keeping with the city's mission, environmentally responsible practices be adopted in the design, construction and operation of the new Waitakere Hospital. This brochure explains some of the sustainable initiatives Council is aiming for in the new hospital.

Ways to make this hospital

Getting it right from the outset is better and generally cheaper than retro-fitting (dealing with a problem after it's been built in). Fortunately many minds are at work here. Waitakere City Council's advisors are working with Waitemata Health on the plans for the new Hospital.

DESIGN THE BUILDINGS TO:

catch heat from the sun

How?

- Use windows at the right height and orientation in association with floor coverings which absorb and store heat eg. tiles, stone, slate and concrete

Why?

- This reduces heating costs



catch natural light

- By strategic positioning of windows and use of clerestories and skylights

- To save on use of power and light fittings

absorb/store heat (natural or generated)

- Insulate under the floor, in the walls and in the roof during construction rather than retro-fit later

- Good insulation is one of the big savers on power bills

avoid waste of materials

- Use existing stocks and standard materials, and standard sizes and shapes

- Precut materials and existing models cut construction and fitting costs – customising is more expensive

recycle demolition materials

- Auction off materials and parts from those buildings being redeveloped. There are companies who specialise in recycling demolition materials

- Useful to someone else, and brings some extra revenue. Can be turned into other products

use gardens, plantings plants and other natural materials

- Use rocks, plants and shaped earth (swales) to direct and control stormwater
- Create a roof top garden – which keeps temperatures stable but also offers a 'therapeutic' place to aid recuperation

- Channelling water flow with natural materials enhances the landscape and saves \$'s.
- Planting and arranging 'natural filters' is much cheaper than installing the pipes and drains of a conventional stormwater system



specify natural materials or environmentally friendly ones

- Specify linoleum rather than vinyl flooring
- Specify water based paints

- Many paints and finishes especially solvent based products such as varnishes give off toxic fumes/gases

incorporate original art

- Commission artists to create works for public spaces, walkways, floors, entrance ways etc
- Work also with local schools and community groups on collaborative projects

- Can be therapeutic, contemplative
- Makes a sterile environment more friendly, interesting and distinctive
- Reflects local identity and character
- Supports local artists



be barrier free

- Subject building plans to a 'barrier free' audit

- To make this a user friendly place for all
- Maximise community access and safety

a healthier place...



DURING CONSTRUCTION

limit and control
stormwater

How?

- Limit the amount of tar seal needed and therefore stormwater problems by:
 - use of semi turf etc. in car parks
 - working around existing vegetation to avoid having to replant from scratch afterwards

Why?

- To avoid contamination and flooding problems in Henderson Creek

use sustainable materials

- Specify NZ sustainable plantation timber
- Consider use of laminated timber instead of steel

- Ecologically responsible – some resources are left for those after us.

plant grounds with
(eco-sourced) natives

- Use plants natural to the local environment
- Source natives from local nurseries
- Community planting projects



- Provides habitat for our local species, pleasant views, and less cost from die off (ie. the plants are adapted to these conditions)
- Supports local business

AFTER CONSTRUCTION, USE DESIGN FEATURES FITTED

timers or sensors which
limit or control use

How?

- Low flow taps and urinals save on water

Why?

- So power and water use is minimised

encourage patients
and staff to use
curtains and blinds

- Remind and encourage staff and patients to close curtains to capture warmth

- To conserve heat thus saving on power and heating costs

'harvest' rain water

- Put in place systems to collect, store and supply for reuse for toilets/irrigation etc

- To conserve water and reuse 'free supply' water

natural 'air conditioning'
open windows for fresh
air where possible

- Install windows that open where possible



- To 'empower' users of the building and avoid refrigerants and CFC's

re-use grey water (water
that has already been used
eg. for showers or washing)

- Collect and redistribute where no health risk

- To conserve, store and re-utilise water for irrigating the hospital gardens and grounds

waste reduction

- Food waste to piggery
- Compost from kitchen waste enriches hospital gardens
- Glass, paper and packaging recycling

- More efficient use of resources. Reuse/recycle. There are already Council supported programmes in place to assist this process

Note: None of these measures create hardship. They are however reliant on effective and sensible design at the outset, all-going commitment by managers of the hospital and gentle changes in user attitudes over time.

Helping to Heal: An eco hospital for Waitakere?

Waitakere Hospital Timeline

**Now
2000**

Sign off concept design
Seek resource consents
Commence site works

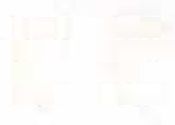


2001

Start building
Continue detail of design

2002

Fit out theatres, wards
and diagnostics



2003

Open new emergency dept,
child health unit and wards



2004

Fit out remaining areas
Complete landscaping



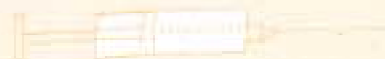
The Outcome?

A Hospital...

- built within budget, within time allotted, and to New Zealand Building Standards,
- where patient safety and comfort is paramount
- where there are long term and significant savings on power, water and wastewater bills
- which is a focal point for the community and a facility to be proud of.

Sceptical?

- Thames Hospital has saved \$178,000 over four years by introducing simple energy saving measures such as timers and involving staff in energy conservation.
- Robert and Brenda Vale (based at Auckland University Architecture School) designed a Surgery/Medical Centre using a standard budget which saved 74% on space heating and 80% on lighting and increased staff productivity.
- Capital Coast Health Ltd saved \$300,000 a year. Among other initiatives they adopted was a performance contract whereby they purchased chilled water, hot water and steam rather than the gas and electricity to produce this on site.
- The government has just released Energy Efficiency standards. Increasingly, Government and Local Authorities are expected to reduce energy consumption.



Not just a hospital!

Those involved in the planning process are not just concerned about the 'bricks and mortar'. They are also committed to creating a community hospital that meets the needs of locals.

Which means introducing innovative initiatives such as:

- family friendly design: inclusion of a playground, and gathering places
- taking a holistic approach: caring about the health of the clients but also making the hospital easy to get to; making the hospital not only look good but also feel good
- providing space on site for a variety of health service providers: both big and small
- having community art inside and out and local people involved
- creating special places where patients and visitors can enjoy views, access to sunshine and fresh air eg. roof garden/balconies/courtyards

For further information on the Eco-Hospital concept phone:

Janet Hannan (Waitakere City Council) phone 836 8000 x 8527
or Rachel Haggerty (General Manager Waitakere Hospital) phone 839 0522

For information about Waitakere City Council's other eco-friendly ventures

Obtain a copy of: *The Better Buildings Guidelines* or *The Sustainable Home Guidelines*
from PO Box 93 109, Henderson, Waitakere City or check out the Web page www.waitakere.govt.nz
Or talk to Waitakere's Sustainable Building Advisor Ph 836 8000 x 8365