# FILLETING AN OLD BUILDING SUSTAINABLY WHILST KEEPING ITS OLD BONES

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Abstract

The re-fitting of a 25 year old food processing facility highlights the changes in materials, technology, standards and finishes that have developed in that time. The challenge in such a project is achieving improved food safety outcomes, reduced environmental and energy impacts, and best practice working environments within an older structure.

The New Zealand Green Building Council and Green Building Council of Australia were used as guiding documents in parallel with the application of knowledge of food safety, hygienic food manufacturing processes, and current technologies for the Aotearoa Fisheries site.

Aotearoa Fisheries Inshore has a commitment to sustainability both in its fishing resource management and within the environments for processing and administration. This brief was assigned to Peter Swan Consultants in the redevelopment of their newly acquired Bell Avenue facility in Otahuhu, South Auckland.

Three principle areas of environmental engineering and sustainable design were explored in a formal Sustainability Report at the project initiation stage. These were:

- Utility use management
- Environmentally selected materials and passive design
- Waste minimisation

Whilst a refit offers the opportunity to remove older technologies, the recycling of materials was adopted where possible including reuse of carpet tiles, doors, relocating the most modern existing air conditioning units, reusing furniture and refitting existing fish processing equipment.

Building materials selection included using well performing acoustic tiles with recycled glass components, exterior finish material that also contained recycled materials and through colour to eliminate the need for excessive cleaning.

Utility use management focused on electricity and water / wastewater management. Refrigeration is the largest electricity consumer and more sustainable technologies included low global warming air conditioning refrigerants, and reduced water use in heat rejection.

Water use management offered significant change opportunities including WELS 4 Star appliances throughout, managed water use at point of use within production areas, and low flow / high pressure cleaning technologies.

Productivity has been improved by tempering air with the processing area, reducing noise and managing light within administration areas, producing odorless air in the administration area, offering secure well lit vehicle parking with video surveillance and card-entry for all staff. Sensor LED lighting has been incorporated inside and out.

These features are current good sustainable practice. They stand completely apart from the objectives and outcomes of the original 1989 building and facilities.

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