

Below: Hale Stratos toilet partitions were used due to their ease of maintenance and low bacteria build-up surfaces. Cortech has the Hale installation contract for the whole Wellington region.

Facing page top: With its acoustic insulation and low emissions, eco panel was chosen for the walls of Conservation House.

Facing page lower: Designed to act as relaxed meeting spaces, the break-out rooms have been lined with zero-emission pine battens.

There has been much speculation surrounding the strengthening trend towards environmentally pro-active buildings and the impact this will have on the construction industry. Particularly believed to be at risk are the smaller contractors who may not have the wherewithal to meet the ecological requirements such buildings demand. The fact of the matter is that for most of the works associated with construction, it's business as usual.

"The logistics of sustainability, energy-efficiency and the like were all worked out long before Cortech Interiors was contracted to the job", says owner Cory Young.

"Aside from the amount of MDF that has gone into this job, which was of a much larger scale than usual, our role was stock-standard carpentry as far as we were concerned."

With energy-efficiency one of the key fundamental principles of the refurbishment, careful consideration of the materials used was paramount. This resulted in the utilisation of a number of products new to the New Zealand marketplace, the low volatile organic compound-emitting MDF being one of them.

"As I said, the amount of MDF used throughout this job was the only factor that distinguished it from any other job we've worked on. The impact of this was that I imported some specialist straight-edge tools from Europe to ensure the same level of finish that we pride ourselves on," says Young.

Contracted by McKee Fehl as one of the main interior carpentry companies responsible for the fitting of walls, doors, eco panelling and battening, Cortech Interiors spent five months on the project, with an onsite workforce of 17.

Established in 2003 and already with working relationships with McKee Fehl Construction, Hale Manufacturing and others, Cortech Interiors has a proven track record as a progressive sub-contractor.

For more details, contact Cortech Interiors, mobile 021 383 235, phone (04) 473 0295, fax (04) 473 0297.







Left: Natural wood elements underscore the eco-friendly emphasis of the DOC building.

This large pine display case catches the eye in the central atrium. Joinery experts Grimes & Browning built the entire feature, from bolting home steel support girders through to installing the glass access doors and case frontage.

Below: This high-tech ply-and-glass kitchen was created and set in place by Grimes & Browning. The island's frontage, counter and sides are bolted to steel support girders.

In a building renovation designed to respect the environment at every turn, it follows that this green ethos should be visible to the DOC staff on a day-to-day basis. Low-emission, renewable-resource hoop-ply was used for all of the joinery throughout Conservation House and, coated in clear varnish, it provides a visible reminder of the building's ecologically sound make-up.

Joinery specialists Grimes & Browning manufactured the diverse array of joinery running throughout the building. Director Peter Brooks says hoop-ply with low emission levels of formaldehyde was specified by the architects. Similarly, the architects required the formica tops to have low emissions, and even finishes and glues were looked at closely to find a balance between strength and environmental respect.

"This was a large project, even by our standards, with everything from kitchen counters and mail room joinery through to a stainless steel autopsy table constructed by us," says Brooks.

In fact, the list stretched to five kitchen units, three reception counters, showcase counters, a records counter, 18 utility units and the formica tops and stainless steel tops throughout the building. All plywood surfaces received the same transparent finish.

"While elements such as a reception counter would often be a stand-alone piece within a fit-out, here much of the work was more complex," he says. "Many elements were interdependent and in some areas we had to weave together plywood, steel and glass sheets to create one unified result. The reception counters were a case in point."

In business for over 60 years, Grimes & Browning is a traditionalist joinery company focused on both commercial and domestic projects. The company's classic carpentry approach means they work with solid timber joinery, such as window and door frames, as well as all manner of steel and joinery units.

For details, contact Grimes & Browning Joinery, PO Box 35062, Naenae, Hutt City, phone (04) 567 7149, fax (04) 567 7149. Email: grimes@xtra.co.nz.





Above: A koru motif broken up into variegated lines was installed on the balustrades by High Performance Window Films. The motif, this time in plain gold, is repeated on the meeting rooms glazing. HPWF also installed colourful film panels on Conservation House's exterior glazing.

Facing page top: Atco Steel Developments' work runs through the heart of the building. Elements included framework for the chilled beams, elevator structural support and framework for the atrium roof.

Facing page lower: The stairs have been designed to be both highly visible and easily accessible, prompting staff to use them rather than the lifts.

The DOC Building is colour-coded green for the future of the environment – and this applies in literal as well as symbolic terms. The central atrium, stretching up four floors, has a green koru motif writ large across its glass balustrading on all levels. This graphic is broken up into variegated vertical lines.

High Performance Window Films, HPWF, supplied and installed the translucent adhesive films that comprise these graphics, as well as colourful elements found in other areas.

“The atrium’s eye-catching element is also repeated as red and gold motifs on some glass-fronted offices,” says Michael Ladbrook, managing director of HPWF Wellington. “Made with High Performance Windows Films’ Lateral Film, the images are digitally printed directly onto either frosted, opaque or clear films to provide an expedient design solution for corporate identities – in this case for the Department of Conservation.” The high-tech film was also used on the inside faces of the DOC building’s street-facing windows.

“Transparent films in different colours punctuate the glazing in sizes of approximately 2.5 metres by 400mm, to distinctive street effect,” he says. “These appear over three levels from Manners Street and over four levels as seen from the Willis Street elevation.”

This was an upscale project for the company, with over 200m of the graphic film used in the internal atrium area and offices and another 60m for the external window graphics.

The graphic film used on the atrium bannisters has been covered with a clear, scratch-resistant film after installation. This was only necessary here, where the film would be in constant contact with visitors and staff.

Other films available from HPWF include Damage Control safety and anti-graffiti films and an Energy MF series of films, some of which reflect up to 79% of heat.

For details, contact High Performance Window Films: Auckland, phone 0800 473 255; Christchurch, phone 0800 473 242; Wellington, phone 0800 473 935. Or visit the website: www.hpwf.co.nz.



Some of the most effective ideas can also be the most straightforward. One way to facilitate the use of human energy over electric in the DOC building, for example, was to ensure the stairwells in the podium were in plain sight. The stairs act as a visual prompt to encourage staff to walk between levels rather than take the elevator.

As a result, the stairwell is something of a central feature for the building. Its complex, hanging construction, together with many other structural steel elements, was undertaken by Atco Steel Developments.

Site supervisor Ray Marshall says the stairwell was an intricate undertaking in that it was constructed from the ground up, then clipped together and suspended structurally from above.

“Open to the atrium on one side and looking through glass walls into office space on the other, the staircase is an architectural feature in its own right,” he says. “We also created and installed the handrails for this.”

Adding to the difficulty of the task, individual steel elements had to be fed in through scaffolding surrounding the atrium before it could be pieced together inside.

“Much of the staircase engineering was complex in nature, with the final physics and angles only possible through computer calculations,” says Marshall. “Adjacent but separate to the stair structure we installed several steel-rolled, hollow-section transom posts to support the soaring glass panel walls that contribute to the drama of this central space.”

In addition, Atco Steel created the atrium roof structure, introduced new steel floor beams, framed void infills and built suspended ceilings and support systems.

“These support systems were another unusual aspect of the job – created to hold the chilled beams in place on level three of the podium. As with any leading-edge design, the project threw up the odd previously unencountered problem that was overcome on the fly.”

For details, contact Atco Steel Developments, PO Box 31107, Lower Hutt, phone (04) 939 1087, fax (04) 939 1154. Email: atco@atcosteel.co.nz.