

Iredale Group Architecture

By James Askew

Subhead option 1: A visionary leader in the design of sustainable communities

Subhead option 2: “Living Buildings” and move toward a truly sustainable future

Iredale Group Architecture at a glance:

Location:	Vancouver, BC
Branch offices:	Victoria, BC; Mayne Island, BC
Specialty:	Community spaces
Employees:	23
Revenues:	\$3.5 - \$4 million
Revenue increase in past year:	15 percent +/-

Pull quotes:

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Contents page summary:

In the pursuit of truly sustainable future, Iredale Group Architecture, with offices in Vancouver, Victoria, and Mayne Island, British Columbia, has distinguished itself as a visionary leader.

On the Royal Roads University campus in Victoria, British Columbia, a project is underway that will—in the words of its designers—revolutionize the way we view the built environment.

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Moving well beyond the inclusion of renewable energies and the rudiments of sustainable design, the University's new Bateman Centre is part of a project that promises a wholly awe-inspiring future for green-building. Upon completion, the Centre will be one of North America's first "living buildings," designed to be restorative, rather than destructive, in its relationship to the earth.

Richard Iredale is a partner in Iredale Group Architecture, the firm that designed the Bateman Centre. "The idea of a living building," Iredale explains, "is that it is like a living plant. Rather than drawing resources from the grid or a large watershed, it tries to only draw resources from the site of the building."

"The ultimate goal of a living building or a living community," he continues, "is that the built environment performs useful ecological services, in the same way a plant does."

In the Bateman Centre, much of these "living" aspirations are achieved in recognizable ways, through the collection of rain water run-off and the use of solar hot water and voltaic panels, to name a few, but without question, the project's crown jewel is the Integrated Waste Recovery Plant to be built nearby.

In short, the primary plant will be a sewage treatment and heat recovery plant for the surrounding community of 15,000 people, extracting the near 70 degrees from raw sewage as it is treated. But, as Iredale explains, this is only one portion of the integrated system.

The \$60 million project will also include a gasification and clean-burn unit, which will burn wood and other biomass waste to produce steam to run a generator, as well as a biomass ethanol digester that will turn garden waste and the sewage plant's residual sludge into ethanol.

"By tying these processes into the sewage treatment plant," Iredale explains, "you get a closed loop process, because the sludge out of the wastewater treatment goes into the ethanol digester, then the waste from the ethanol digester goes into the gasification unit."

But even that doesn't tell it all. Presently, the sewage that will supply the plant is pumped directly into the Strait of Georgia. In addition to eliminating this pollution source, the treated water will flow through a hydro-electric generator, on its way to the Bateman Centre, to heat the building, before it is then pumped into a nearby wetland, where it will facilitate an increase in organic life, helping to sequester greater amounts of CO₂.

"So, after we've extracted the heat and used the water, we can then use it to create a wetland, and the wetland, in turn, restores the atmosphere that we have hurt by pumping CO₂ and other stuff into it," Iredale explains.

Iredale says that the electricity from the plant will power the entire campus and several condo towers, with excess power sold back onto the grid, while the ethanol produced will be sold to fuel fleet vehicles. "The bottom line," he says, "is that there are about 15,000 people who will supply waste to this plant...and if you look at the total amount of energy those people use every year, including driving, this plant produces about 15 percent of that total."

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In addition to Iredale Group’s visionary thinking in sustainable architecture, the firm, founded in 1980 and with offices in Vancouver, Victoria, and Mayne Island, BC, is as equally forward thinking in its approach to design.

Iredale is a fan of famed writer and urban theorist, Jane Jacobs, who, among other things, was instrumental in halting the expansion of Toronto’s Spadina Expressway in the late 60s, a move that is reputed to have saved the Toronto downtown.

To explain a bit of Iredale Groups’ design philosophy, Iredale cites from Jacobs’ book, *The Death and Life of Great American Cities*.

“Her famous quote,” he says, “is ‘The chance encounter is the small change from which social life is built.’”

To this end, Iredale says, one of the firm’s focuses is literally to create “crossroads,” in its designs, where the constructed environment—be it in a bank or an urban neighborhood—facilitates these chance encounters. In effect, Iredale says, “It is planning for people bumping into each other.”

Like most visionaries, Iredale admits that he too can have his doubts about the future. “It feels like you are a little ant, pushing against a boulder,” he says.

But, he concludes, “I think we are in the process of containing and managing this whole problem of fossil fuels. I think that we are going to become sustainable and that the future can be beautiful.”