

RVTR, Canada

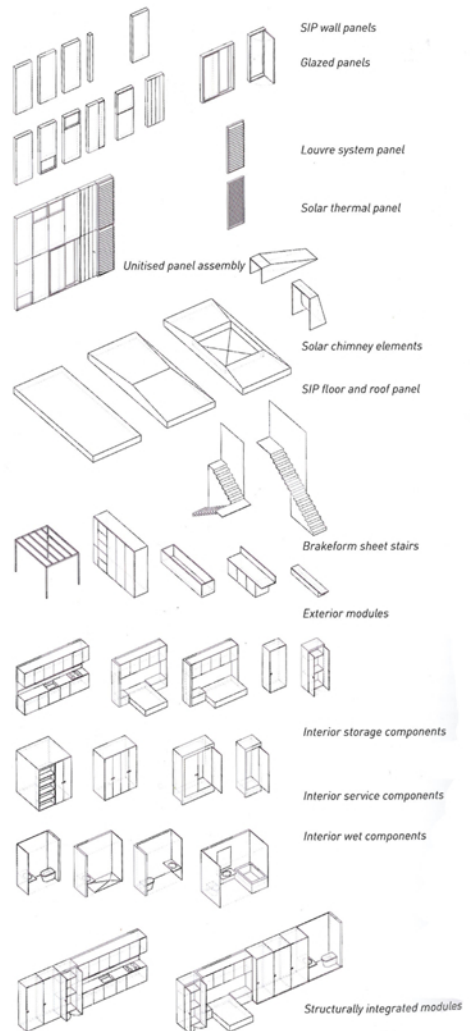
Latitude

Latitude, designed by RVTR, includes a number of possibilities for sustainable housing in Cherepovets. Instead of one typology, RVTR's approach was to create a number of lightweight steel-framed modules that can generate multiple housing types.

These modules can be reconfigured to create single homes or duplexes. Latitude is not only a design for a single house, but a strategy for developing an entire residential system that includes manufacturing, food, energy use, waste recycling, and regional economies and ecologies, all through the agency of re-considered housing. "We wanted to create a sustainable community that was capable of changing and growing in response to social, economic and environmental needs", says architect Kathy Velikov, who worked closely with fellow RVTR partner, Paul Raff. The five different housing types designed by RVTR include a courtyard house as well as a row-style house. "This makes sustainable single-family community density targets of 30 units per hectare achievable, while still providing a high level of amenity and privacy", she adds.

Floor and roof panels are a composite system constructed in lightweight honeycomb steel. With the components assembled in a factory, there is minimum waste. "With minimum waste, and using only light-gauge steel, the costs are immediately reduced", says Raff. Other materials, such as timber, are expected to come from the development of a sustainable forestry industry.

While RVTR's design is relatively 'transparent' for a cold climate, the glazed walls and windows have been made from a composite glass/ceramic double-skin vacuum glazed system. And to protect against the elements, there is an ingenious system of louvres,





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trellises and plantings that form an additional 'veil' to the home. The elongated form of Latitude, with its north-south layout, also optimises daylight.

A typical floor plan may include kitchen and living areas on the ground floor, with bedrooms above. One design features a two-storey void in the centre of the house, allowing both light and connectivity between levels. A skylight in the roof allows natural light to penetrate to the core. "Latitude's modular system will allow the houses to grow if required, or simply be updated in response to changing circumstances", says Velikov. And in keeping with sustainable principles, the appliances used in the house are low-energy and promote low water use.

RVTR has been as thoughtful when planning the exterior spaces of these dwellings. Large terraces, both at ground and first floors, extend the interior space. Raised garden beds, planted with agricultural produce, provide a sustainable contribution to the world's growing shortage of food. And in the depths of winter, the grounds can be used for skating.

"The Jury credits RVTR for widening the interest of their project to the garden usage and streetscapes. The design exemplifies accomplished architecture and a very clear planning strategy. The Jury recognises the excellent approach to the outdoor space as a lifestyle that is very well articulated. The plans are to be commended for their beautiful simplicity and economy of space."

- 1 Factory-built housing components include structurally integrated modules and SIP wall, roof and floor panels
- 2 Rendering illustrates productive exterior landscape