

## Super energy-efficient housing means sharp reduction in heating costs

Ontario residents considering the purchase of a new home now have an opportunity to realize substantial savings in household operating costs, thanks to vastly improved construction standards related to energy-efficiency.

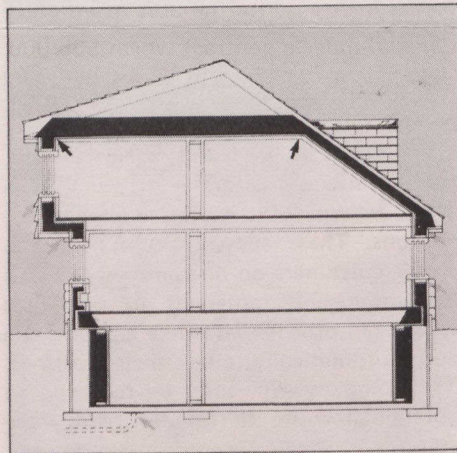
Under the Super Energy-Efficient Home Program, administered by Energy, Mines and Resources Canada in co-operation with the Housing and Urban Development Association of Canada (HUDAC), homes are being built in Ontario which are designed to provide as much as a 60 to 80 per cent reduction in space heating costs, and up to a 50 per cent reduction in the cost of energy used for hot water, appliances and lighting.

Seventy-five demonstration homes are being constructed and made available for sale throughout the province. As reported in *Canada Weekly* dated June 1, 1983 it is expected that some 300 R-2000 homes will be built across Canada by the end of 1983 under the program, which trains builders in the construction and marketing of energy-efficient housing.

### Insulation

A typical R-2000 home contains two to three times more insulation than the average new home. Not only are there large quantities of insulation in the walls and attic, but also in the basement and in the doors.

Also, the R-2000 home is completely airtight. Its inner walls are wrapped with a polyethylene vapour barrier, which effectively prevents drafts and ensures that moisture does not enter the walls.



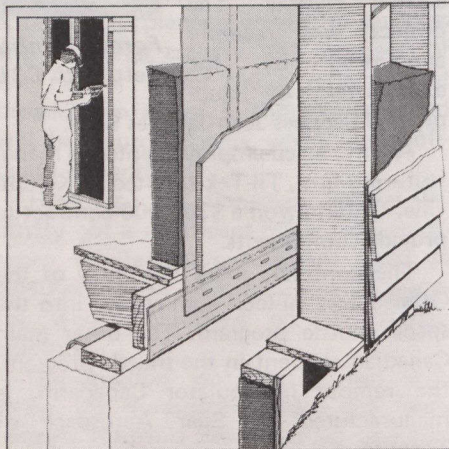
To eliminate the waste of energy by exhausting heated stale air, an air-to-air heat exchanger, or similar device, is installed in R-2000 homes to transfer heat from stale air to the incoming fresh air.

Weather-stripping is generously applied to seal doors and windows, and air-lock vestibules are often installed to sharply reduce any drafts that might be created by open doors.

Abundant amounts of insulation and airtight construction mean that R-2000 homes can make use of a smaller than average, highly-efficient heating system. To further contribute to low fuel consumption, and ensure adequate air quality, R-2000 homes incorporate air-to-air heat exchangers which preheat incoming fresh air by transferring heat from outgoing stale air.

### Double-glazed windows

The windows are improved double- or even triple-glazed and are often concentrated on the south side of the unit



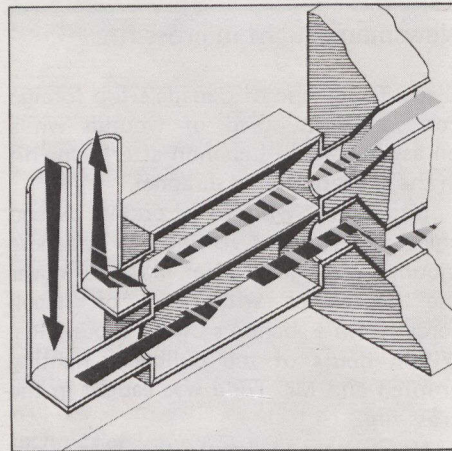
Insulation is the most important factor in retarding heat flow from houses. Over-all, two to three times more insulation is used in the R-2000 home and walls in the basement are insulated to full height.

to take maximum advantage of heat from the sun.

Other important components include energy-efficient appliances and lighting systems. The home contains appliances with particularly low energy consumption ratings, which are labelled under the government of Canada's Energuide program.

Fluorescent lighting is used wherever possible — particularly in kitchen, laundry and work areas, because it uses up to 60 per cent less energy than conventional lighting.

The 75 R-2000 homes in Ontario involve careful construction by builders specially trained in implementing super energy-efficient building technology. The



The R-2000 house is built with airtight construction techniques, using a sealing method that eliminates drafts, prevents moisture through walls and controls the rate of air exchange.

result is a new standard of comfort, lasting value and low energy costs.

In fact, Dave Arnold, Dalron Construction, Sudbury, who constructed the first R-2000 house in Ontario, indicated that there was already substantive evidence of super energy efficiency.

"In the Sudbury home, through computer analysis, we have been able to determine that space heating costs will probably be reduced by 80 per cent, or from \$1 100 to \$240 or less, a year," he said. "Needless to say, we are delighted with these numbers and fully intend to incorporate energy efficient features as options in all of the homes we build in the future."

## Mitsubishi reactivates Midland plant

Almost 600 unemployed workers in the Midland, Ontario area will have jobs by 1987 thanks to the reactivation of the former RCA Midland colour television picture tube plant by the Mitsubishi Electric Corporation. This is the first major Japanese manufacturing investment in the Canadian electronics industry.

Mitsubishi has purchased the plant for \$20 million and, with assistance from the federal and provincial governments, will invest another \$26 million in projects aimed at modernization and product diversification over the next five years.

The federal contribution of \$7.5 million, announced July 5 by Trade Minister Ed Lumley, was made under the department's new Industrial and Regional Development Program.