

Super-insulated houses for North

The Northwest Territories Housing Corporation (NWTHC) has started a project that will result in seven "super-insulated" homes that might "revolutionize" the housing industry in the North.

Ian Girvan, NWTHC managing director, says one demonstration home will be built in each of Repulse Bay, Rankin Inlet, Coral Harbour, Eskimo Point, Baker Lake, Whale Cove and Chesterfield Inlet. He hopes the project will be completed by this time next year and "things we learn from this will be used in other projects".

According to Housing Corporation figures, the houses should achieve about a 55 percent energy saving over 1978 consumption level. Average consumption in 1978 was about 1,500 gallons a house.

The houses, designed as a total package by the Toronto firm Allen, Drerup and While (ADW), could "revolutionize the housing industry up there" according to Oliver Drerup of ADW.

First attempt

The buildings are the first attempt at a super-insulated house in the North, "and we've designed as compact a house as we could conceive, which is a two-storey square", says ADW's Greg Allen.

After the insulated frame is up and leaks are sealed, the walls will be brought up to R-40 and the floors and roof to R-60. A continuous vapour barrier will be ensured by "hanging (the second floor) from the walls rather than building a platform" with floor joists running right to the outside of the house.

"In effect, we can put the vapour barrier up before putting the floors in," Allen explains. In the end, the barrier will be sandwiched between gyprock and a finishing hardboard panel, and carefully sealed.

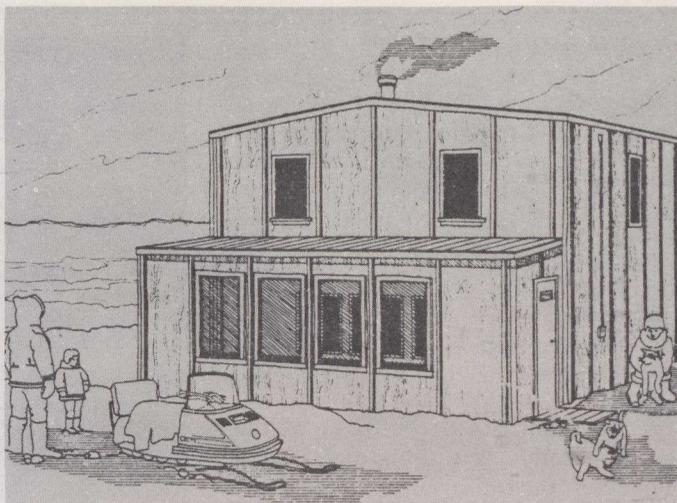
Sunporch

The south side of each house will have a built-in sunporch, which "acts as a general storage area, caribou carving, what have you, and it's sun-tempered, so that during daytime periods it can be kept reasonably comfortable for working in". The north side "simply has one window and the rest of it is insulated walls". The houses also feature a three-door airlock — from the sunporch to a vestibule to the actual living area.

The oil-fired space heater was chosen for its small size, because "no furnaces were nearly small enough for the job", Allen says, "and also because of power shortages and outages — when it goes off, the people go to whoever has got a Coleman stove left". To counter the space heaters' poor distribution, "what we've done is taken an air return with a fan at the highpoint in the building", The air

return can be operated manually, with the fan coming in, if required as a back-up.

(Article by Mitchell Beer, Canadian Renewable Energy News, June 1980.)



Experimental Arctic housing

Grain and oilseeds outlook for 1980-1981

Canadian wheat prices in 1980-81 should average higher than last year's because of a record world demand and expected stronger prices in the United States, predict Agriculture Canada economists.

The strong world demand should offset a forecast world wheat production of 445-450 million metric tons, a possible record crop.

Recent favourable weather in the wheat growing areas of Canada has increased considerably the estimated Canadian wheat production figure for 1980. The harvest now is forecast at 17.4 million metric tons — 900,000 metric tons of winter wheat, 1.8 million metric tons of durum wheat and 14.7 million metric tons of red spring and other wheats.

With a carryover of 10.6 million metric tons, this would give an estimated wheat supply this year of 28 million metric tons. This is down from the 32.1 million metric tons available in 1979-80.

With the predicted domestic use and allowing for a minimum carryover of seven to eight million metric tons for the next crop year, there will be about 14-15 million metric tons of wheat available for export.

Agriculture Canada economists say Canadian coarse grain production prospects have improved greatly since early summer, but supplies will remain tight in 1980-81.

Coarse grain production is forecast at 21.2 million metric tons. This includes

10.7 million metric tons of barley, 3.1 million metric tons of oats, a record 5.3 million metric tons of corn and about 432,000 metric tons of rye.

The tight supply is the result of lower yields caused by the prairie drought conditions and continued high levels of domestic requirements.

Oilseed production declines

Canadian rapeseed production will be higher than anticipated earlier this summer, but still about 33 per cent less than the 1979 crop. Favourable growing conditions in July and August are expected to result in a 1980 Canadian rapeseed crop of 2.3 million metric tons.

Domestic rapeseed crushings could increase slightly, but rapeseed exports are expected to decline from last year's figure of 1.74 million metric tons to about 1.3 million metric tons. The export decline is forecast because of increased rapeseed production in Europe, strong competition from palm oil in Asia, and sluggish conditions in world markets.

Soybean production in Canada in 1980 is expected to be about the same as last year's figure of 670,000 metric tons. Exports of soybeans could also remain unchanged and prices are expected to be steady.

Canadian flaxseed production in 1980 is forecast at 475,000 metric tons. Flaxseed exports in 1980-81 might be about equal to last year's.