

of changing our habits to bring about the practice of wintertime construction more in line with its technological possibilities. Local affiliates of the national organizations represented on the Committee were encouraged to participate in local wintertime construction campaigns conducted under the auspices of the National Employment Service and in the general publicity campaign.

The trade and professional press have similarly been most co-operative and helpful in printing articles and editorials in the field of wintertime construction. Several have published special issues on the subject. This materials has been most helpful in spreading wintertime construction methodology and in promoting acceptance on the part of the design professions. Back in December, 1961, for example, the Journal of the Royal Architectural Institute of Canada featured a message from the Royal Institute's president and an Editorial appealing to architects to counsel Owners as to the advantages of wintertime building:

"Because of the need to provide balance in our economy, members of the architectural profession throughout Canada recognize the desirability of developing building projects throughout the calendar year without regard to any threatened interference or stoppage by weather conditions. As a result, the volume of wintertime construction has increased so that now more Canadians are employed in construction operations during the middle of the winter than were employed during the middle of the so-called 'building season', a dozen years ago."

"Technological changes in the building industry and substantial improvements in winter building techniques now make it both possible and practical to carry on most types of construction throughout the winter, even under severe cold weather conditions. Architects can make a substantial contribution to the winter works program by counselling owners that construction can be carried on in the dead of winter without any sacrifice in quality of construction or any significant addition to overall costs."—HARLAND STEELE, FRAIC.

".... the organizers of the Winter Employment Campaign have chosen to work largely through such organizations as the Canadian Construction Association, the National Housebuilders' Association, and other agencies who could speak with an authoritative voice on the problems of outdoor building during the cold months. This has resulted in a tremendous increase in the general knowledge of the problem of winter building and a high degree of acceptability within the construction industry of the practicability of year-round operations."

"The greatest need remaining is to convince prospective owners of new buildings of the principles which are now generally accepted throughout the building industry. Here the architect can play a major role. As an early consultant on the building project, he is in the very best position to overcome the effects of out-of-date thinking, and to organize the planning and schedules in such a way as to ensure an efficient winter-time operation."

"Although it is generally accepted that wintertime building may be slightly more costly, these costs can be reduced to a minimum by proper planning, and prospective building owners can be encouraged to examine these extra costs against other charges which may result from his delaying the start of his new building. Savings in rents and earlier production schedules can often more than offset the additional costs of wintertime building."—Editorial.

#### ECONOMICS OF WINTERTIME CONSTRUCTION

What about the cost of wintertime construction? Governments may be expected to schedule public works in the winter for sociological etc. reasons, but how about private investors? It is difficult to be definitive on this subject, but generally speaking all of the evidence points to the financial benefit to the Owner of proceeding with his project in the wintertime, rather than waiting until next spring.

The important factor to remember is that wintertime construction costs should be compared to those that will be experienced in the *next* summer rather than the *previous* summer. Building costs indices have risen consistently each year over the past thirty-five years. The index in January is usually about 3% lower than in the following summer. This in itself indicates that it would be economical to spend quite large sums of money on wintertime construction rather than postpone the work until the spring.

The next point to remember is that the extra costs of wintertime construction are related only to those portions of the project carried out in the adverse winter period—not to the whole job. A few years ago the Canadian Construction Association conducted a survey among its general contractor members to find out how much extra they had provided in their bids for winter work—i.e. the amount that Owners had to pay. Over 100 medium-sized contracts were