

Fear of bad weather has often been more important than the actual weather conditions. Many jobs are not scheduled, but those that are can progress rather rapidly even under poor weather conditions.

Winter construction is now clearly feasible in many more cases than is now the practice. Canada, with winter temperatures well below freezing, has made great strides in all types of construction work throughout the year. Experience throughout Europe—particularly in Scandinavia—confirms the technical feasibility of construction in extreme cold.

But technical ability is of no value if coupled with economic impossibility. The major impediments to winter construction in the United States is cost, although too often it is the fear and expectation of cost rather than careful analysis based on accurate information.

With proper planning many projects can be completed without any rise in costs. In others there certainly may be an apparent increase of 1 or 2 percent due to failure to take into account other factors, such as savings in unemployment insurance. In some instances, contractor's costs may be higher, although in terms of the entire economy there may be a large saving.

There may be higher fees for design; the architect must so choose his materials and plans as to bypass work which presents special problems in cold weather. More frequent inspections of the work may be needed since the consequences of errors may be more serious. However, hot weather and dehydration may be even more serious problems than the cold.

An investment in knowledge is needed. Research on special materials and methods must be undertaken and workers must be trained to use these improvements. Special protective shelter may have to be provided, and snow shoveled away. Heat for workmen and for cement and masonry may be necessary, and in some instances protective clothing for workmen. Other indirect expenses, such as damage from the weather, may arise.

But there are also many savings which can be realized by winter work:

The year-round use of owned equipment reduces cost; rentals are usually cheaper in the winter; and interest costs for short-term operating capital are generally less in the off-season.

Contract officers confidently expect more and sharper bids, especially for work not crowded into the heavy bidding periods in the spring and summer.

There are definite savings because of less overtime, a regular feature in the busy construction summer. (Overtime in construction now costs the Nation about \$1 billion a year.)

There are savings in workmen's compensation costs because of higher summer accident rates directly attributable to excessive overtime, worksite congestion, and inexperienced crews.

Fewer delays occur in the off-season because of material shortages; and better use is made of year-round skilled skeleton crews maintained by some contractors during the off-season.

Possibilities for quality control in a less hurried work pace and lower off-season industrial prices, especially in lumber products, are enhanced.