

NETWORK PLANNING

In this appendix we set out a brief description of "network planning" which is basically a technique for planning and controlling projects that consist of a number of interrelated activities, and which is ideally suited to construction projects.

Each project of this type must pass through three distinct phases, namely, planning, design and construction. There is the mistaken impression throughout the construction industry that management is a matter of experience alone and that the nature of the operations in each of these three phases is such that it does not lend itself to formal planning and control.

The planner justifies his lack of detailed planning on the complexities of dealing with a variety of boards and regulatory bodies, over which he has no control. The architect, during the design phase, claims his creative work does not lend itself to management planning and control and that the process of producing working drawings is too involved and variable to use a formal control system. The contractor, during the construction phase, has a host of reasons for lack of formal management, such as undependable sub-contractors, the vagaries of the weather, strikes, etc. The significant point to be made here is that the reasons given for not using a formal management control system are, in fact, the very reasons why a formal system should be used.

All planning is based on assumptions, for if it were possible to know precisely how a project were going to proceed, no planning would be necessary. Planning establishes how a project should proceed, based on the best information available at the time. If conditions change as the project progresses, it is then possible to determine the effect of the new conditions on the original project goal. On the basis of this information those in authority are in a better position to make effective decisions on a new course of action and can take steps to correct any deviation from the original plan.

Therefore, the fact that the program is difficult to plan and control and is continually subject to changing conditions makes it all the more necessary that a formal system of management control be used to ensure that continual attention is provided to direct the program towards its goals.

A good management control system for any project must have the following characteristics:

- (1) It must facilitate detailed planning.
- (2) It must be able to measure performance in relation to the plan and quickly report any deviations from the plan.