

Basic Research on Applying Temporary Work Engineering at the Design Phase

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Abstract : The application of constructability is increasingly required not only in the construction phase but also in the whole project stage. In particular, the proper application of construction experience and knowledge during the design phase enables the minimization of inefficiencies such as design changes and improvements in constructability during the construction phase. In order to apply knowledge effectively, engineering technology efforts should be implemented with design progress. Among many engineering technologies, engineering for temporary works, including facilities, equipment, and other related construction methods, is important to improve constructability. Therefore, as basic research, this study investigates the applicability of temporary work engineering during the design phase in the building construction industry. As a result, application of temporary work engineering has a greater impact on construction cost reduction and constructability improvement. In contrast to the existing design-bid-build method, the turn-key and CM (construct management) procurement methods currently being implemented in Korea are expected to have a significant impact on the direction of temporary work engineering. To introduce temporary work engineering, expert/professional organization training is first required, and a lack of client awareness should be preferentially improved. The results of this study are expected to be useful as reference material for the development of more effective temporary work engineering tasks and work processes in the future.

Keywords : Temporary Work Engineering, Design Phase, Constructability, Building Construction

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