Study on Network Construction Technologies for Sewage Treatment Plants

Whole term	2003.6 ～ 2006.3	

(Purpose)

In the recent sewage business, it is becoming more and more important to set rational business plans in response to stable management and social demands such as improvement of combined sewer systems, advanced sewage treatment, etc. As the concrete methods to meet those social demands, we have proposed in the research on Network Planning the effectiveness method to set business plans through a comparative study from a long-term perspective (on economic efficiency, crisis management and added value) between ① networking of current systems and ② independent countermeasures.

The purpose of the study about network construction technology is to propose a technical skill to lead to accurate and effective study results in order to judge the difficulty of construction work or to select the most suitable construction method in the course of an overall comparative study on the proposed plans with mutual collaboration of the planning section and the maintenance management section.

(Results)

（1） Study method of construction technology

The effective study methods of construction technology are shown below:

1）Levels of construction technology study and its contents responding the progress of Network Plan

It was proved to be important to understanding and select accurately the construction technology and method for a problem responding each stage from network possibility study to business plan setting. The contents were proposed.

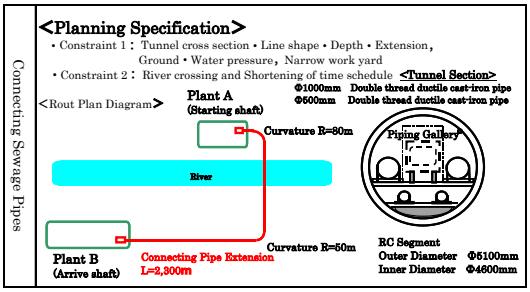

Fig.1: Case of Classification and comprehension

2）Procedure of construction technology study In the study of construction technology on building and maintenance of sewage connecting pipes, it was proved to be important to implement the operations from comprehension of building plan to estimation of construction cost following a series of study flows from “confirmation, classification, comprehension, extraction, selection, to detailed study”. The procedures were proposed.

（2） Technical information materials for construction technology study

We have compiled the outcome of our research, classification and study on the recent situations of technological developments and construction records adopting new technologies, etc. into the technical information materials to enable “effective selection of technology and construction method” from “classified and figured out problems of construction” on practicing the construction technology study method proposed in this research.

1）Construction technology on building and maintenance of sewage connecting pipes

As a technical information tool for construction study of sewage network connecting pipes, we provided 5 items; ① a list of points on planning and technologies to cope with construction problems on the construction of sewage connecting pipes, ② correlation diagrams of construction records under particular conditions, ③ a list of construction records under particular conditions, ④ a list of network building related construction records (reference data), and ⑤ outline sheets of new construction technologies (reference sheet).

2）Construction technology on construction and maintenance of sewage plants

As a technical information tool for construction study of sewage plants, we provided 2 items; ① a list of points on planning and technologies to cope with construction problems on the construction of sewage plants, and ② search / inspection methods and diagnostic assessments.

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