

Study on diagnosis process of sewer pipes

Whole term

2004.9 ~ 2006.3

(Purpose)

As a project of reconstruction and rehabilitation (hereinafter: RC & RH) is consisted of a series of technological processes like “investigation in sewer pipe”, “diagnosis”, “program of RC&RH” and “design and construction” and each process relates plural industries, there are some cases with unsuitable situations for effective project going. Unsuitable situations are a)information exchanges between processes are not fluent on demand b)there are difficulties to utilize each output at the next process due to existing process going independently. In addition, there is a condition that each output format and content are not made available for the next process information.

Considering those situations, this study is to systematize information format output from each process, to

convert collected data into digital data with information technologies, to make more effective conditions of utilities not only at the next process but also at maintenance scheme. These works establish a measurement to solve the above problems and a technical manual is arranged.

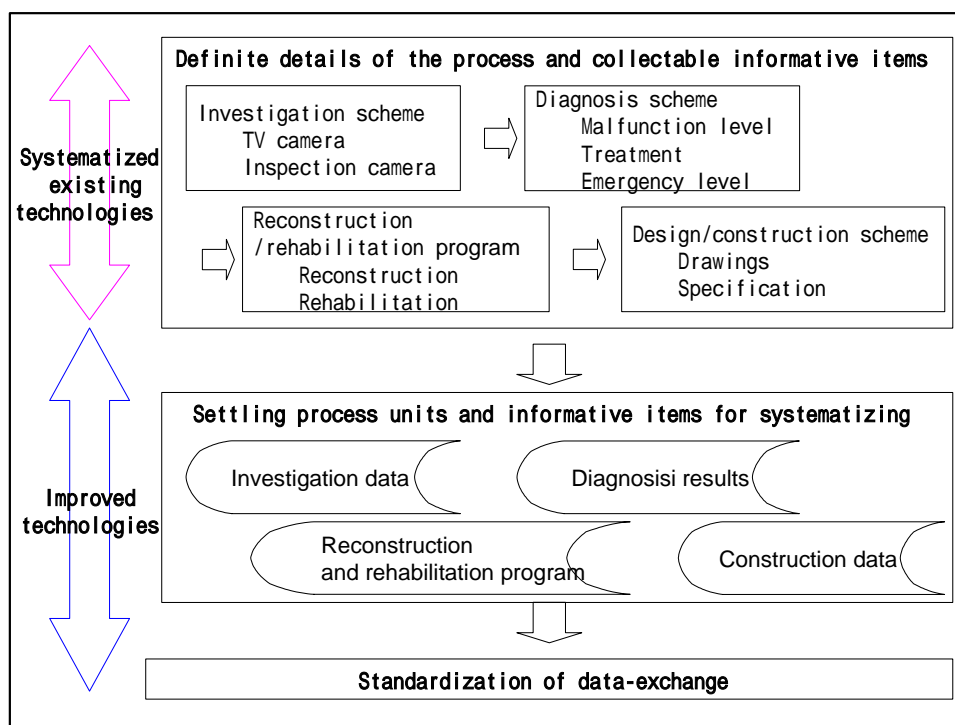


Figure-1 Object of the study

(Contents)

1) Flow of the study

A flow chart of the study is shown in Figure-2

2) Systematization process for premeditated and effective reconstruction/rehabilitation project

Based on kinds of existing manuals and guideline of operation / maintenance etc., the processes aiming at RC & RH project enforcement finally are systematized as a series of works from investigation to construction. Afterward premeditated and effective implementation of the project will be examined.

In 2004 year, detail investigation of fields and contents of existing materials was the first step. The second step was to questionnaire municipalities about experiences of RC & RH projects. The questionnaire shows the followings.

- a) almost of all the municipalities do not make full use of their own data of sewerage ledger even though many of them have electronic ledger systems.
- b) Each of them has a unique standard for diagnosis and judge

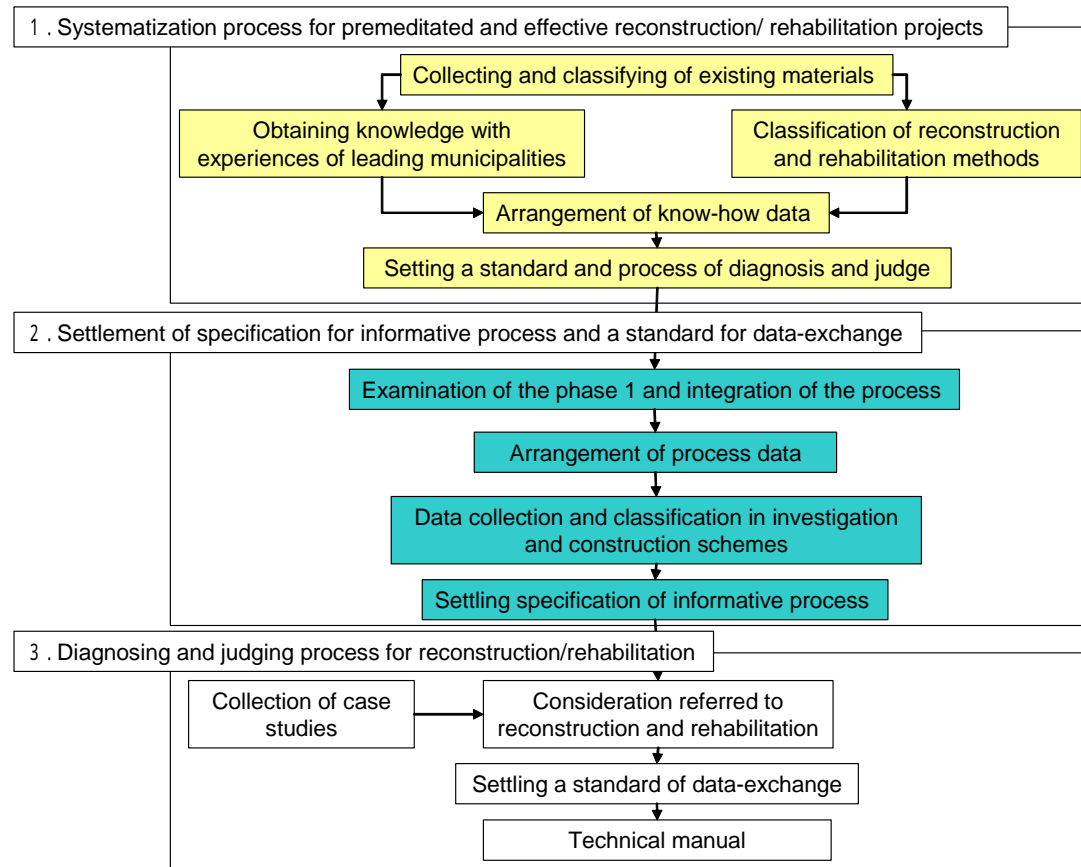


Figure-2 Flow chart of the study

(Study Schedule)

1) Systematization of RC & RH project

Settling standard and measurement of diagnosis and judge

2) Settlement of specification for informative process and a standard for data-exchange

In order to concrete the specification of collected data format and to give better system used by any users even if he/she did not input/collected data for the process, a standard for data-exchange is to be settled.

3) Diagnosing and judging process for reconstruction/rehabilitation

Considering better use for sewerage maintenance work of each municipality, with standardized data, case studies of project classification process to apply RC process or RH process and examples of diagnosis of RC & RH works.

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key words

Diagnosis process , Standard for diagnosis and judge , Data-exchange, Informative process