Study on the spread promotion based on a population decrease etc for unsewered areas

Year of Research	2008	

(Purpose)

The coverage of sewered population in Japan reached 70.5% at the end of FY 2007. However, there are still 23 million unsewered populations in the sewerage planning areas. Many of municipalities with unsewered populations are facing the change in social conditions such as population decreases in addition to the current severe financial situation.

Under these circumstances, this study was conducted to develop innovative methods for prompt and effective sewerage development.

(Results)

(1) Study on nationwide technological standards for promotion of innovative sewerage development methods

The technical assistance was provided to municipalities conducting social experiments. Also, among innovative technologies adopted in social experiments, “Above ground plumbing”, “Continual adoption of improved inverted siphons”, “Variable slope sewer construction using bent pipes”, “Reuse of dug soil as pipe foundation”, and “Use of liquefied stabilized soil as refill material” were evaluated in this study.

Regarding “Use of liquefied stabilized soil as refill material”, performance evaluation was completed with good achievement in this study. Therefore, the study determined the technology to be promoted to “a sewerage development method to be widely applied” from “a sewerage development method that requires performance evaluation by social experiments”.

(2) Study on innovative sewerage development methods

The needs survey to municipalities on innovative methods for prompt effective sewerage development was conducted, and information regarding practices in other countries was collected.

As a result, “Condominial sewer system” (see Fig. 1) was proposed to the Steering Committee for Prompt Sewerage Development as “a sewerage development method to be widely applied without performance evaluation”.

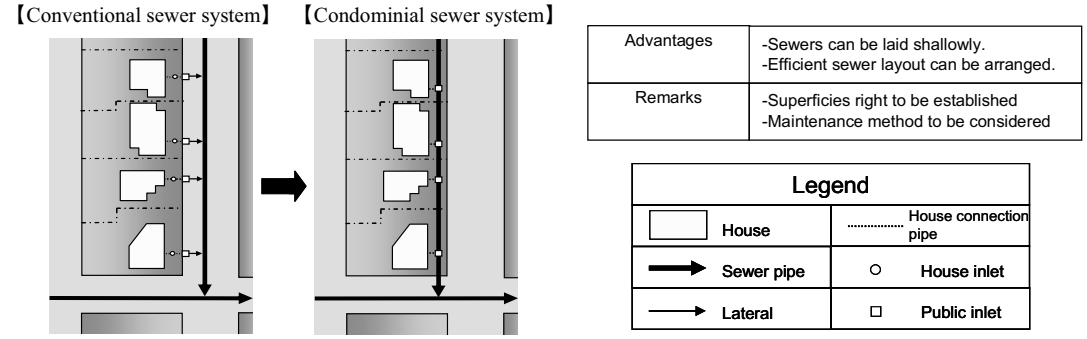

Fig. 1 Outline of “Condominial sewer system”

(Summary)

(1) Study on nationwide technological standards for promotion of innovative sewerage development methods

Regarding “Use of liquefied stabilized soil as refill material”, performance evaluation was completed, and the technology was authorized as “a sewerage development method to be widely applied”, while the other innovative sewerage development methods that require performance evaluation by social experiments will be evaluated continuously after the coming year.

(2) Study on innovative sewerage development methods

“Condominial sewer system”, which was proposed in this study to the Steering Committee for Prompt Sewerage Development, can be generally applied in municipalities as “a sewerage development method to be widely applied” by the recommendation of the Quick Project.

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Key words	Quick Project for Prompt Sewerage Development, Innovative sewerage development methods, Social experiments