Abstract

The Road Subsidence Conditions and Safety Improvement Plans in Seoul

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The ground subsidence includes sinkhole, settlement, cavity, potholes, and road subsidence. Road subsidence is described as the cavity collapse caused by bearing capacity loss in the ground rather than depression in the ground, etc. in limestone, where a surface stream, disappears underground. The events have been occurred about 677 times. And it increased until 2013 and have decreased recently.

Underground facility damages, management faults, and underwater lowering caused road subsidences in Seoul. Seoul metropolitan government announced special management counterplan to relieve anxieties and make safe road passing(2014.08.28.). it is necessary to precisely manage the construction sites because excavation work induce road subsidence.

This study suggests three plans to prevent road subsidence in Seoul. Firstly, revision about construction method and period road rules are described. Secondly, to prevent road subsidence due to poor compaction and backfill, flow backfill material use is suggested instead of sandy clay. It can also prevent effectively protect underground conduits. Since city's main roads have been investigated and will be checked because of the budget difficulties.

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