

## **Safety & Health Alert No. 48/2020**

### **Protection of Underground Services from Damages due to Excavations**

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From time to time, there were incidents or accidents involving damages to underground services due to excavation work. This will not only cause damage to the underground services, services interruption to the public but also personal injury. The attention of contractors, frontline supervisors, operators of excavators and workers is drawn to site safety in working near the underground services.

Safety precautionary measures in working near the following underground services can be retrieved through the link to the websites of pertinent departments or organisations below:

1. Underground Cables
  - 1.1 Approved Competent Person 13 Steps for Underground Cable Detection  
[https://www.emsd.gov.hk/filemanager/en/content\\_442/13\\_Steps\\_Underground\\_Cable\\_Detection.pdf](https://www.emsd.gov.hk/filemanager/en/content_442/13_Steps_Underground_Cable_Detection.pdf)
  - 1.2 11 Measures for Underground Cable Protection  
[https://www.emsd.gov.hk/en/electricity\\_safety/publications/general/index.html#sl](https://www.emsd.gov.hk/en/electricity_safety/publications/general/index.html#sl)
  - 1.3 General Practice on Execution of Excavation and Construction Work Near Underground Electricity Cables  
[https://www.hyd.gov.hk/en/publications\\_and\\_publicity/publications/technical\\_document/xppm/related\\_documents/doc/utility/Attachment%201%20-%20HEC%20-%20General%20Practice%202010%20\(English\).pdf](https://www.hyd.gov.hk/en/publications_and_publicity/publications/technical_document/xppm/related_documents/doc/utility/Attachment%201%20-%20HEC%20-%20General%20Practice%202010%20(English).pdf)
  - 1.4 Code of Practice on Working near Electricity Supply Lines  
[https://www.emsd.gov.hk/filemanager/en/content\\_443/CoP-WorkingNearElectricitySupplyLines2018.pdf](https://www.emsd.gov.hk/filemanager/en/content_443/CoP-WorkingNearElectricitySupplyLines2018.pdf)

## 2. Gas Pipes

### 2.1 Avoidance of Damage to Underground Gas Pipes and Electricity Cables

[https://www.emsd.gov.hk/filemanager/en/content\\_284/avoid\\_damage\\_pipe\\_cable.pdf](https://www.emsd.gov.hk/filemanager/en/content_284/avoid_damage_pipe_cable.pdf)

### 2.2 Code of Practice on Avoidance of Damage to Gas Pipes

[https://www.emsd.gov.hk/filemanager/en/content\\_286/CoP\\_gas\\_pipes\\_2nd\\_\(Eng\).pdf](https://www.emsd.gov.hk/filemanager/en/content_286/CoP_gas_pipes_2nd_(Eng).pdf)

### 2.3 Guide to Estate Management Companies “Avoiding Danger from Gas Pipes”

[https://www.emsd.gov.hk/filemanager/en/content\\_284/gas\\_pipes\\_estate\\_mgt\\_en.pdf](https://www.emsd.gov.hk/filemanager/en/content_284/gas_pipes_estate_mgt_en.pdf)

## 3. Water Mains

### 3.1 Guidelines for Excavation Near Water Mains

<https://www.wsd.gov.hk/en/publications-and-statistics/guidelines-reports-drawings-specifications/guidelines-excavation/index.html>

### 3.2 How to Prevent Damage to Water Mains

<https://www.wsd.gov.hk/en/publications-and-statistics/guidelines-reports-drawings-specifications/prevent-damage/index.html>

In general, the following steps are to be adopted for preventing mishaps in excavation-

- a. Obtaining record drawings of underground services and appointing competent person to conduct detection of underground services;
- b. Marking the routing of underground services on ground surface;
- c. Ascertaining the location of underground services by hand-dug trial pits;
- d. Exposing underground services by hand tools and avoiding using heavy machines or sharp tools such as pickaxe in close vicinity of underground services; and
- e. Protecting underground utilities with suitable support and posting warning notices for alertness.