

Design Manual Chapter 14 - Trenchless Construction 14A - General Information

Commonly Used Trenchless Technologies

A. Techniques Common in the United States

Several trenchless technologies are commonly used in the United States. They are separated into two categories based on whether they are used most frequently for new construction or reconstruction.

New Construction:

- Auger Boring
- Compaction Boring
- Pipe Ramming
- Slurry Methods
- Horizontal Directional Drilling
- Pipe Jacking and utility tunneling
- Microtunneling

Reconstruction:

- Cured in place pipe
- Fold and formed pipe
- Sliplining
- Pipe Bursting

Each of these technologies is discussed in greater depth in Parts 14B and 14C.

B. Techniques Common in Iowa

A study was conducted by the Iowa Highway Research Board (IHRB) to determine which trenchless methods were the most prevalent within the State of Iowa. This study, included responses from both the public and private sector, determined which trenchless technologies are the most commonly used construction methods within the State of Iowa. The study indicated that horizontal directional drilling (HDD), auger boring, and pipe jacking are the most common new construction technologies used within Iowa. For rehabilitation work, cured-in-place pipe is the most commonly used technology in Iowa.

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