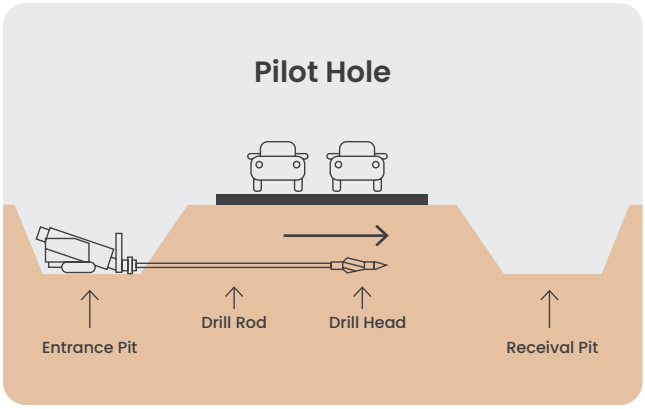
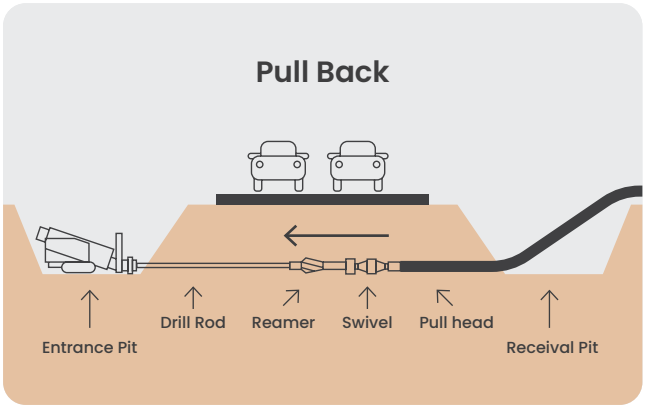
Horizontal Directional Drilling

What is horizontal directional drilling?

Horizontal directional drilling (HDD) is a trenchless construction method used to install underground conduits (a protective tube or pipe) for 132kV transmission cables, without the need for open excavation. It is particularly useful in areas where traditional trenching is not possible or would cause significant disruption, such as major roads, intersections, freeway ramps or environmentally sensitive areas.







How HDD works

To undertake HDD, entrance and receival pits are required on either side of the work area to install the conduit and support the drilling activities. These pits are approximately four metres wide and five metres long.

1. **Stage one: pilot bore**

   A horizontal drilling machine drills a pilot hole along a planned underground path. The drill head is steerable, allowing operators to navigate around existing services and obstacles with real-time alignment.

2. **Stage two: hole enlargement (reaming)**

   Once the pilot bore is complete, crews gradually enlarge the hole using reamers. This creates enough space for the conduit that will house the cable.

3. **Stage three: conduit installation (pullback)**

   Crews attach the conduit to the HDD machine and pull it back through the enlarged borehole. Once installed, the conduit forms a continuous underground pathway for the cable to be hauled through at a later stage (see the cable hauling fact sheet).

What you'll notice

- We'll put temporary lane and/or pedestrian path closures or detours in place around drilling sites to keep workers, vehicles and community members safe. We'll provide details in works notices before works start.
- There will be short-term noise from drilling equipment and machinery. Noise levels will remain within the Western Australian Environmental Protection (Noise) Regulations.
- Dust may be created during the cutting of asphalt to create and enlarge the boreholes. We'll use water trucks, water trailers and barricades throughout the project to minimise impacts.

Need more information?

General construction queries
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Project details or to register for updates
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